Lǐ Yǒngsuì 李永燧. 2002. A study of Sangkong [Sāngkǒngyǔ yánjiū 桑孔语研究]. Beijing: Central Nationalities University Press. 403 pp.

The Sāngkǒng 桑孔 language, spoken in China's Yunnan Province, was discovered by Chinese linguists in the late 1980s. Since that time, Lǐ Yǒngsuì 李永燧 , who has published extensively on Hāní 哈尼 and other Southern Loloish languages of China, has been the principal Chinese investigator of the language.[1] In *A study of Sangkong*, one of the publications in the series *New found minority languages in China* [*Zhōngguó xīn fāxiàn yǔyán yánjiū cóng shū* 中国新发现语言研究丛书] Li presents a comprehensive and systematic introduction to the features of Sangkong.[2] This hardcover volume is the first publication on Sangkong of any substantial length.

The book contains five chapters (1 Introduction; 2 Phonology; 3 Lexicon; 4 Syntax; 5 Comparison and Affliation), followed by a Tibeto-Burman family tree, a word list, texts, bibliography, and acknowledgments. These sections will be discussed in order below.

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1. Chinese terms are given in pīnyīn romanization and, at the first occurrence, simplified Chinese characters. After the first occurrence, proper names will be given without tone marks.

2. For an overview of this series, see Thurgood and Li 2003. Review of *New found minority languages in China Series. Language* 79.4:843-845.

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1. Introduction

The introduction contains a brief ethnographic description of the Sangkong people, a history of linguistic research, and a summary of the notable features of the language. The Sangkong (Chinese Sāngkǒng 桑孔 or Bùxià 布下 , autonym [saŋ⁵⁵qhoŋ⁵⁵]) live in the region of Xiǎojiē Township 小街乡 , Jǐnghóng City 景洪布 , Xīshuāngbǎnnà Tai Autonomous Prefecture 西双版纳傣族自治州 in Yúnnán Province 云南省 . The population numbers somewhere between 1000 and 2000. The nationality has no official status, as the Sangkong are classified by the government as members of the Hani minority. They have no historical records, and little is known about their origin. The language remains unwritten today and is of low prestige. Most speakers also know Mandarin, Hani (specifically the Yǎní 雅尼 variety of Hāyǎ 哈雅 dialect) and the Xishuangbanna dialect of Tai. Some speak Lāhù 拉祜 . Despite the precarious position of the language, Li is encouraged by recent trends and believes the language is not in imminent danger of extinction.

Li classifies Sangkong as Southern Loloish, with similarities to Hani and Bìsū 毕苏 , and notes that its features are on the whole typical for Lolo-Burmese languages. A few distinctive features are highlighted by Li, notably: 1) the presence of a set of prenasalized initial consonants derived from earlier nasals; 2) the presence of both -*p* -*t* -*k* endings and open syllables with tense vowels; 3) the existence of verbal particles which agree in number with the subject of the sentence. These features are discussed in detail in the appropriate sections of the book, and I will touch on them further below.

Li explains that the fieldwork on which his description is based was carried out over three separate trips in 1997 (with the help of two graduate students), 1998, and 1999. There is reason to suspect that these dates may be in error, however, since Li's own publications on the language date back to 1992.

2. Phonology

The phonological description is typical of Chinese linguistic practice. The syllable is analyzed in three parts, the initial consonant (*shēngmǔ* 声母), the remaining segments (*yùnmǔ* 韵母), and the tone (*shēngdiào* 声调), each of which is described separately. Syllable structure is CV(C), and each syllable is pronounced with a distinctive lexical tone.

The chart of initials is presented on page 17. There are three distinct series of obstruents: voiceless unaspirated, voiceless aspirated, and voiced prenasalized. The latter are described by Li as "nasals with oral release", and while it is possible phonemically to treat them as a voiced series /b bj d g/, Li prefers to transcribe them /mb, mbj, nd, ŋg/ etc., presumably to emphasize their historical origin as nasals. These prenasalized initials contrast with a series of ordinary nasals /m mj n ɳ ŋ/. In addition to labial, alveolar, palatal and velar initials, there is a series of uvular stops /q qh/ and a series of "palatalized labials" /pj phj mj mbj/.[3] The uvulars are derived from earlier velars in a manner reminiscent of developments in Lahu. Li notes that fricatives show a voicing

contrast, but the statement is too general in light of the fact that the contrast is only found in the palatal fricatives /ɕ ʑ/. The other fricatives (/x s h/) have no voiced counterparts. The glottal stop initial /ʔ/ does not contrast with smooth onset, so is considered an allophone of zero and not transcribed.

According to traditional Chinese linguistic practice, the stops /t tʰ/ are described as "alveolars" (*shéjiān zhōng yīn* 舌尖中音) while the affricates /ts tsʰ/ are described as "dentals" (*shéjiān qián yīn* 舌尖前音). I have never seen a Chinese phonological inventory which does not classify the affricates as more forward than the stops in this way, and the reader should not draw any conclusions about place of articulation based on such a classification, which is likely just an artifact of Chinese linguistic convention.

There are eighteen monophthongal vowels in Sangkong, divided into two subsystems, one tense and one lax. The author points out that the so-called "lax" group is in fact articulated with ordinary modal voice, and is only considered lax in contrast with the tense series, which is articulated with "constriction (*jǐnsuǒ* 紧缩) of the throat". The author makes no mention of any qualitative differences between the lax vowels and their tense counterparts. Only the lax vowels may combine with consonantal endings -*m* -*n* -*ŋ* -*p* -*t* -*k*, though not all possible combinations occur. This phonotactic restriction is easily explained as the result of the development of tense vowels from the loss of stop endings. In the chart on page 36, a number of finals are asterisked. These finals

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3. Note that *pj* is misprinted as *bj* at the top of page 17.

are marginal to the system, occurring only in Chinese and Tai borrowings and in fused syllables of native origin.

Li points out that the presence of both tense vowels and stop endings in a Lolo-Burmese language is highly unusual. He believes this situation came about because the development of stop endings to tense vowels was interrupted when a significant layer of Tai words, many of which had stop endings, was borrowed into Sangkong. For this reason the stop endings are found not only in Tai borrowings, but also in native words which never participated in the sound change.

Sangkong preserves the three Proto-Lolo-Burmese [PLB] tonal categories A, B, C intact in unchecked syllables.[4] All syllables with final stops or tense vowels (which are derived historically from final stops) belong to the PLB D category. (The author frequently refers to this category as *rùshēng* 入声 "entering tone", the traditional name for the analogous tonal category in ancient Chinese.) This tone category has split in two, conditioned, according to Li, by an earlier vowel length distinction.[5] The tones are termed DL (long) and DS (short), but these names are only mnemonic references to their historical origin. They are distinguished by pitch, not length, in Sangkong. Phonemically, the DL and DS tones may be considered, by virtue of tone contour and complementary distribution, to be allotones of C and B respectively. In

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4. The categories A, B, C are equivalent to the categories 1, 2, 3, which are favored by Western Tibeto-Burmanists.

5. I will discuss Li's PLB vowel length distinction below. Matisoff (1993:126) instead analyzes the Sangkong tone split as conditioned by the syllable-initial consonant class, in typical Loloish fashion.

addition to these tones, a high rising tone is found in loan words and sandhi environments. Mandarin words in the fourth tone (which is rising in the Southwestern Mandarin dialect that is in contact with Sangkong) are borrowed into Sangkong with this tone. For example, Mandarin *bùgào* 布告 'bulletin' is borrowed into Sangkong as $pu^{35}kau^{35}$ (note also the diphthong in the second syllable). Some Tai borrowings are also in this tone, although Li does not indicate which Tai phonetic factors are responsible. Finally, the tone is found in native syllables which are contractions of low-high tone sequences, for example mo^{35} 'rain' is derived from a fusion of $muŋ^{31}$ 'sky' and ho^{55} 鞍 'fall'.

There are no generalized rules of tone sandhi operating across syllables in Sangkong, although certain lexical items do exhibit contextually determined tone changes (for example, the words for 'three' and 'four', as described on page 142).

The complete inventory of initials, finals, and tones is as follows:

Initials (p. 17)

p	ph	m	mb		w
pj	phj	mj	mbj		
t	th	n	nd		l
k	kh	ŋ	ng	x	
tɕ	tɕh	ɳ		ɕ	ʑ
ts	tsh			s	
q	qh			h	ʔ

Finals (p. 36)

i	e	ø	a	o	u	ɤ	ɯ	ɿ
i̱	ȩ	ø̱	a̱	o̱	u̱	ɤ̱	ɯ̱	ʅ
			ai*					

			au*				
im	em	øm	am	om	um		ɯm
in	en	øn	an	on	un	ɤn*	ɯn
iŋ	eŋ		aŋ	oŋ	uŋ	ɤŋ	ɯŋ
			ap	op	up*		
it	et	øt	at	ot*	ut*		
	ek*		ak*	ok*			

Tones (p. 54)
55 A		high level
31 B	[42] DS	low falling
33 C	[44] DL	mid level
35		high rising

Perhaps the most useful feature of the section on Sangkong pho-
nology is the comprehensive list of syllables illustrating each of the ini-
tials, finals, and tones. Under each phonological unit, a complete set of
all lexical items containing that unit is provided (with the exception of
commonly occurring affixes). Each lexical item listed is cross-refer-
enced by means of a superscripted index to the numbered word list in
the back of the book. Unfortunately, the lexical items are given only in
Chinese translation and not in Sangkong transcription; for the latter one
must turn to the word list. A box is placed before or after the Chinese
translation to represent syllables in the referenced word which do not
illustrate the sound unit in question. For example, on page 19 the first
word illustrating the initial *p-* is given as [3] 月亮 □. This tells us that if
we turn to the third item in the word list at the back (on page 282), we
will find the Sangkong word for 'moon' (Chinese *yuèliàng* 月亮), and

that we will find initial *p-* in the first syllable but not the second (represented by the square). As expected, the form found on page 282 is pe^{31} la^{33}. We find the same entry ³ 月亮 □ listed under final -*e*, and we should find it listed under tone B as well but it is missing there, presumably inadvertently. (We do find the second syllable listed as ³□ 月亮 under tone C.)

Despite the awkward arrangement, these lists are extremely useful. One can see at a glance, for example, the relative frequency of phonemes in the word list vocabulary and by extension (assuming the word list is representative) of the language as a whole. One can search by initial, final, or tone for potential cognate words as part of a comparative study. Among the interesting facts that can be ascertained at a glance are that zero-initial syllables (other than affixes) are quite rare, and that the four historical tone categories A, B, C, D appear to be distributed with about equal frequency across the Sangkong lexicon. No doubt more careful examination would yield more interesting results.

Toward the end of the phonology chapter is a set of charts, running for 23 pages, providing a complete list of syllables which exist in the language (excluding those with marginal finals like *ai, ak,* etc.) A separate chart is given for each final. Running down the left side of each chart is a list of the full set of initials, and across the top of each chart is the full set of tones. Chart cells representing combinations which are not attested are left blank; those that are attested are filled in with a Chinese word glossing the Sangkong word that contains the target syllable. An index number into the word list is not provided, so there is no direct way to identify the Sangkong word. Perhaps the author considered this to be unnecessary since the Sangkong pronunciation can be easily

obtained by constructing the syllable out of its three component parts. However, this does not allow the reader to cite the full Sangkong word in which the syllable occurs. For example, one finds in the chart cell for final -*i*, tone C, initial *s*- the word " 树 □". This tells us that the syllable *si*^{33} occurs as the first syllable in the word for 'tree'. But in order to find out what this word is, we must scan through the word list or look at one of the illustrative syllable lists. Whether we look under initial *s*-, final -*i*, or tone C, we will find a reference to word list entry 169: 树 *si*^{33}*tsuŋ*^{55}.

Assembling the illustrative word lists and the syllable charts must have required a good deal of time and labor, for which those who will benefit from these useful tools owe the author a debt of gratitude.

The last section of the phonology chapter deals with phonetic alternation, of which several types are common in Sangkong. These are 1) the fusion or contraction of two syllables into one; 2) the loss of nasal ending in the first syllable of a bisyllabic compound each of whose members have identical finals and tones; 3) free variation of stop endings with their homorganic nasal counterparts. The second type, which we might call rhyme-induced nasal apocope, can be illustrated by the word for 'inside', which can be pronounced either *qhoŋ*^{55}*loŋ*^{55} or *qho*^{55}*loŋ*^{55}. As for the third type, which is common among young speakers, Li feels it may represent the beginning stages of a new process leading to the ultimate loss of stop endings.

3. Lexicon

The chapter on lexicon discusses word classification, morphological processes, and the historical origin of the lexicon. There is little in this chapter that is surprising or of theoretical interest, but it is useful for the large number of example words provided and as a way of laying the foundation for the chapters to follow on syntax. Li describes Sangkong as a "semantic language" (*yǔyìxíng yǔyán* 语义型语言). I am not familiar with the Chinese term, but Li apparently uses it to characterize languages which have little or no inflectional morphology (i.e. are isolating or analytic) and are primarily monosyllabic in nature (i.e. in which for the most part morphemes are monosyllabic). In this regard Sangkong is typical of Lolo-Burmese languages. Li does note a handful of bisyllabic words which defy morphemic analysis, including some basic vocabulary such as 'cotton', 'fish', 'behind', 'dragon', etc. Although he classifies these as monomorphemic bisyllables, it seems likely that, historically at least, these are compounds whose origins have become obscure.

Li discusses the structure of Sangkong compounds in some detail. He describes two basic types, one formed from the combination of two roots (or "full words" in traditional Chinese terminology), the other by addition of an affix (or "empty word") to a root. The order of compounded elements follows the same rules as govern word order in phrases, with attributive adjectives following head nouns and attributive nouns preceding head nouns. So, for example, *la³¹mba³³* 'thumb' is formed from head *la³¹nuŋ⁵⁵* 'finger' modified by adjective *mba³³* 'large', while *tshʐ̩³¹me³³muʉ³¹* 'wool' is formed from *tshʐ̩³¹me³³* 'sheep' modifying head *aŋ³³muʉ³¹* 'hair/fur' (*aŋ³³* is a prefix).

The common prefixes a^{55}, a^{31}, $a\eta^{33}$ mark word classes and also serve to distinguish otherwise homophonous morphemes. These three prefixes are clearly not allomorphs, but it is not entirely apparent what distinguishes them functionally. In some cases they seem to have a nominalizing function when affixed to measure words or verbs. For example, the etymologically related words $z\phi^{33}$ and $z\phi^{31}$ mean 'measure (for flowers)' and 'to bloom' respectively; the word for the noun 'flower' is $a\eta^{33}z\phi^{33}$. $A\eta^{33}$ also occurs as a prefix in some adjectives.

The most common suffixes are male and female markers (affixed to animal names) and a deverbal suffix -tu^{55}, which derives a noun (usually a tool or instrument) from a verb. For example, the word $tche^{33}tu^{55}$ 'ruler (tool for measuring)' has root $tche^{33}$ 'to measure'.

Li further analyzes the component morphemes of some compounds as being "strong" or "weak". The strong element has clear semantics, while the weak element has bleached or unclear semantics. "Weak" elements are not restricted to affixes. It seems that Li employs this distinction in order to explain the behavior of compound words when they themselves are compounded. For example, the word for 'water' is $la\eta^{55}tcho^{31}$. Li calls the first syllable "strong", because it has the identifiable meaning 'water'. The second syllable is "weak" because its meaning is unclear, although he speculates it may once have also meant 'water', or perhaps have referred to a specific type of water. When $la\eta^{55}tcho^{31}$ 'water' combines with other roots to form new compounds, the weak syllable is dropped and the strong syllable is retained, as in $la\eta^{55}mban^{55}$ 'spring' and $la\eta^{55}ho\eta^{55}$ 'boiled water'. Li's analysis is

somewhat forced. It seems simpler to consider so-called "strong" syllables like *laŋ⁵⁵* to be bound morphemes, which can enter into compounds freely but cannot function alone as words.

In his discussion of the lexicon, Li provides (pp. 108-115) an extremely useful list of Sangkong words which have clear Tibeto-Burman etymologies, along with cognate words. The cognates are tagged with a one-character abbreviation identifying the language. (These same abbreviations are used again in Chapter 5). The abbreviations used are:

桑 - Sangkong (桑孔)
毕 - Bisu (毕苏) [the Mǐbìsū 米必苏 dialect] - used in Chapter 3
米 - Mǐbìsū (米必苏) [dialect of Bisu] - used in Chapter 5
普 - Pǔnuòyī (普诺伊) = Phunoi
姆 - Mǔbǐ (姆比)
基 - Jīnuò (基诺)
哈 - Hani (哈尼)
拉 - Lahu (拉祜)
傈 - Lìsù (傈僳)
怒 - Nùsū (怒苏)
纳 - Nàxī (纳西)
阿 - Āchāng (阿昌)
载 - Zàiwǎ (载瓦)
细 - Āxì (阿细) dialect of 彝 Yí
Other languages are identified by their full Chinese name.

The lists of cognates are followed (p. 116) by a short list of common Sangkong words with no clear etymology, including such basic vocabulary as *qa³¹qa⁵⁵* 'tongue', *ten⁵⁵ne⁵⁵* 'fish', *mbja³³* 'few', *qaŋ³¹mbu⁵⁵*

'language'. This short list presents an attractive challenge to Tibeto-Burman etymologists.[6]

The last section of the chapter discusses foreign loanwords, primarily "cultural terms". Some Chinese borrowings can be assigned to an early layer because they betray features no longer found in Mandarin (such as stop endings) or show patterns of correspondence at odds with those reflected in modern borrowings. One example of an early borrowing is the word qo^{33} 'valley' (Mandarin *gǔ* 谷), the tense vowel of which reflects the ancient Chinese *-k* ending long since lost in Mandarin. Another example is son^{55} 'to calculate' (Mandarin *suàn* 算). Had this word been borrowed recently, it would be in the high rising tone, as seen in the recently borrowed compound $son^{35}phan^{31}$ 'abacus' (Mandarin *suànpán* 算盘).

The author does not speculate on the date of borrowing or the dialect of origin for the early layer. Modern vocabulary is borrowed from the local Southwestern Mandarin dialect, which accounts for the Sangkong tone values 33, 31, 55, 35 for Mandarin tones 1, 2, 3, 4, respectively.

Tai borrowings are from the Xishuangbanna variety. Comparisons on page 119 reveal the close phonetic similarity between the Xishuangbanna forms and the Sangkong words. An inspection of the examples

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6. For example, the Sangkong word $mb\phi^{31}th\phi^{31}$ 'saliva' bears a striking resemblance to Pa-O *pɔ̀ʔhó?* 'id.'. Matisoff identifies the second syllable of the latter form with Proto-Tibeto-Burman root *m-tu(:)k ~ *s-t/du(:)k 'spit'. However, the Sangkong syllables do not show evidence of an original stop ending.

shows that, for example, Xishuangbanna *x-* is borrowed as *qh-* before back vowels and as *tɕh-* before front vowels. (Li does not make these patterns of correspondence explicit.) A few Sangkong words are clearly derived from Tai words no longer found in Xishuangbanna (but attested in other Tai languages), suggesting that they belong to an earlier layer of borrowing.

Although the basic order for noun-noun compounds is modifier-head in Sangkong, head-modifier compounds are also found as a result of influence from Tai. Such compounds are not restricted to borrowings, but also include calques composed of native morphemes.

4. Syntax

Sangkong syntax operates primarily through word order and the use of grammatical function words (particles). Inflection is almost entirely lacking, limited to tone changes in the first- and second-person pronouns to indicate the possessive.

The basic word order in Sangkong, as in all Lolo-Burmese languages, is SOV. Adjectives, numbers, and demonstratives follow the nouns they modify; nominal modifiers precede the nouns they modify. Adverbial phrases precede the verbs they modify.

Li discusses in detail each of the parts of speech he has identified for Sangkong. These are: nouns, verbs, adjective, numbers, measures, pronouns, adverbs, particles, conjunctions, exclamations and onomato-poetics. Li divides particles into three classes: aspect particles, structural particles, and sentence-final particles. The most interesting and unusual particles are the sentence-final particles that Li claims show person agreement with the subject of the sentence, which I will discuss

in more detail below. Certain grammatical particles are discussed in the noun and verb sections rather than in the section on particles. For example, in the discussion of nouns Li introduces the two "object marker" particles *la³³* and *me³³*, which mark animals and places, respectively.

Sangkong is an aspect language. There are four distinct aspects, expressed by means of a grammatical particle following the verb. The aspects are perfective (*yǐxíng* 已行), progressive (*xiànxíng* 现行), prospective (*jiāngxíng* 将行), and continuative (*chíxù* 持续). These aspects are only briefly defined and are not illustrated with full sentences or situational contexts, so it is difficult to get a real sense of their usage and semantics. The prospective is of particular interest, because the choice of particle depends on the subject. For first-person subjects, the particle is *ŋa⁵⁵* (identical in form to the first-person pronoun), and for second- and third-person subjects it is *ze⁵⁵*. Li notes that these particles have a dual function, as they express the person of the subject as well as the prospective aspect. This brings us to Li's most surprising claim about Sangkong, that "verbal predicate sentences reflect the number of the subject" (p. 131). Li describes the system this way:

  • the clause-final particle *ŋa⁵⁵* expresses that the subject is in the first person;
  • when the sentence contains no aspect particle or time phrase, *ŋa⁵⁵* also expresses the prospective aspect;
  • when the subject is third-person, the use of *ŋa⁵⁵* at the end of the sentence indicates that the speaker has direct knowledge of the event being described (in the case of the verb "to have", *ŋa⁵⁵* may additionally indicates ownership by the speaker);

• the clause-final particle ze^{55} expresses that the subject is in the second or third person;
    • when the sentence contains no aspect particle or time phrase, ze^{55} also expresses the prospective aspect;
    • When occurring in clauses with negated verbs, ηa^{55} and ze^{55} become ηe^{55} (or e^{55}) and zi^{55} (or i^{55}) respectively.
The following sentences illustrate these usages:

ηa^{55}	$ha\eta^{31}$	tsa^{31}	sa^{33}	pi^{55}	ηa^{55}	
1sg	rice	eat	EXP[7]	PERF	PART	"I have eaten."

ηa^{55}	$ha\eta^{31}$	tsa^{31}	ηa^{55}	
1sg	rice	eat	PART	"I will eat."

mo^{35}	ηan^{31}	$\eta g\gamma^{55}$	ηa^{55}	
rainfall	PROG	COP	PART	"It's raining."

(speaker has personal knowledge)

$qo\eta^{55}$	ηe^{33}	$te^{31}qha^{55}q\o^{33}$	ηa^{55}
bottle	LOC	wine	exist	PART

"There is wine in the bottle." (it is the speaker's)

$tha\eta^{55}$	$p\varrho^{31}l\varrho^{31}$	$p\varrho^{31}$	ηan^{31}	$\eta g\gamma^{55}$	ze^{55}	
3sg	word	write	PROG	COP	PART	"He is writing."

$tha\eta^{55}$	$p\varrho^{31}l\varrho^{31}$	$p\varrho^{31}$	ze^{55}	
3sg	word	write	PART	"He will write."

    Given the role these particles play in several different syntactic subsystems (aspect, evidentiality, perhaps narrative cohesion and, as we will see below, mood) it is unclear why Li chooses to characterize them

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7. Abbreviations used in interlinears are: EXP experiental particle; PERF perfective particle; PROG progressive particle; COP copula; LOC locative particle.

primarily as subject-agreement particles, and further to highlight this as a typologically salient characteristic of Sangkong with repercussions for our understanding of Tibeto-Burman linguistic history. Other analyses are possible. For example, if we characterize $ŋa^{55}$ as primarily an evidential particle indicating that the speaker has direct knowledge of the narrated event, then pragmatics alone can explain its appearance at the end of sentences with a first-person subject: except in unusual circumstances, a speaker has knowledge of her own actions.

A comparison with the evidential system of the Southern Loloish language Akha reveals striking similarities with Sangkong, suggesting that the two systems may share a common origin in Southern Loloish. [8]Like Sangkong, Akha expresses evidentiality by means of sentence-final particles. Thurgood (1986), summarizing data and analysis of Søren Egerod and Inga-Lill Hansson, observes that the Akha evidential system has three primary categories describing the source of the speaker's knowledge: visual, non-visual sensorial, and non-sensorial. The choice of particle depends not only on this tripartite distinction, but also on whether the event described is expected or non-expected, and on whether it is past or non-past. Among the points of agreement with Sangkong is the fact that the various "visual" particles, which indicate that the speaker has direct visual evidence for the assertion he is making, are all derived from the first-person singular pronoun. The superficial similarities of the Akha and Sangkong systems give reason to

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8. I am grateful to Graham Thurgood for alerting me to these similarities.

believe that a more detailed comparison of the two languages might provide insights into the Sangkong data. It would also permit some of Thurgood's hypotheses about the etymologies of the Akha particles to be further tested, and, in comparison with other Loloish languages, would allow us to formulate and refine hypotheses about the history and nature of evidentials in Proto-Loloish.

If, as I suspect, what Li identifies as "subject agreement" in Sangkong is in fact a relatively late development, originating in a Southern Loloish evidential system, then it should not be viewed as an archaic survival of a Proto-Tibeto-Burman verb agreement system.

Sangkong adjectives are morphologically quite interesting. They occur in three forms: as monosyllables, prefixed with $aŋ^{33}$-, and suffixed with $-1V^{T}$ (where V and T echo the vowel and tone of the root syllable). So, for example, we find these three forms for 'red': ne^{55}, $aŋ^{33}ne^{55}$, $ne^{55}le^{55}$. It is also possible for both affixes to occur together, as in $aŋ^{33}ne^{55}le^{55}$. The effect of these affixes is to increase vividness.   In addition, emphatic suffixes $-mba^{33}$ (literally 'mother', meaning 'big') and $-ŋga^{31}$ (literally 'child', meaning 'small') may be added as intensifiers to adjectives with appropriate semantics. One further emphatic strategy exists, namely reduplication, usually in combination with an emphatic suffix. Consider the following examples:

$zø^{33}lø^{33}\ aŋ^{33}ne^{55}$	'red flower'
$zø^{33}lø^{33}\ ne^{55}le^{55}$	'red flower'
$zø^{33}lø^{33}\ ne^{55}le^{55}mba^{33}$	'bright red flower'

The distinctive nuances of these forms would be an interesting topic for future exploration.

Based on Li's description, adjectives are clearly a subtype of verb, as in Chinese and many Tibeto-Burman languages. They can function as predicates without the need for a copula or other verb, and they may combine directly with figurative directional complements and aspect particles.

Li's discussion of measure words reveals a system which is similar in most respects to the familiar measure word systems of East and Southeast Asia. The two "generic" measures are *lem³¹* for inanimate nouns and *(z)aŋ⁵⁵* for animate nouns. There are two aspects of the measure word system which are worth noting. First, Li identifies a class of measure words he terms "reflexive measures" (*fǎnshēn liàngcí* 反身量词), which are identical in form to the nouns they classify. For example, the measure for *xą³³* 'chicken' is *xą³³*. Second, measure words can be used without numerals as noun modifiers. In this case they simultaneously express singular quantity and definiteness. Based on the examples provided by Li, it appears that this usage is very similar to that found in Cantonese. For example, Li glosses *qua³¹phu⁵⁵ lem³¹* as 'this/that bowl'.

The Sangkong personal pronouns have singular, dual, and plural forms. The singular forms distinguish what the author calls nominative, possessive, and accusative cases. There are two first-person plural pronouns, one inclusive and one exclusive. The demonstrative pronoun system has three degrees of proximity: "near", "far", and "farther". Most demonstratives have special fused or contracted forms, originating in combinations of the generic forms with measure words providing

more specific semantics. This list of demonstratives is found on page 151:

	near	far	farther
generic	ɳi^{55}	thi^{55}	qhe^{55}
animate nouns	ɳaŋ^{55}	thaŋ^{55}	qhaŋ^{55}
inanimate nouns	ɳim^{55}	thim^{55}	qhem^{55}
numbers	ɳɯ^{55}	thɯ^{55}	qhɯ^{55}
places	ɳa^{33}	tha^{33}	qha^{55}
times	ɳi^{55}zam^{31}	thi^{55}zam^{31}	qhe^{55}zam^{31}
manners	ɳe^{55}tɕaŋ^{33}	the^{55}tɕaŋ^{33}	qhe^{55}tɕaŋ^{33}

There is one more demonstrative, *qhø^{55}lø^{55}*, used primarily for directions and places at a distance. The author does not discuss in detail the semantic difference between "far" and "farther"; it is possible that the distinction is not solely one of distance, but may involve other factors as well.

The section on particles takes up only those particles which were not addressed in the sections on nouns and verbs. Eight main structural particles are described. These are:

la^{33} patient/object marker
me^{33} locative marker (indicating place object of verb)
e^{55}/i^{55} subordinating particle (used for modification by phrasal or clausal modifiers)
ha^{33} ablative/instrumental marker
a^{33} linking particle (links clauses and introduces verbal complements)
ɣ^{33} subject marker (sets off the subject from the predicate in cases where one or the other is long)
nde^{33} adverbial marker (also marks "long objects")
lo^{31} comparative marker (marks the object of comparison)

One gets the sense reading this section that the analysis of these particles is still in a preliminary stage. Many questions can be raised. For example, might it be better to consider the subject marker r^{33} as an optional topic marker? How is the marker of long objects nde^{33} different in use from other object markers? What determines when a noun phrase is long enough to trigger the use of this particle? Part of the problem is that the isolated sentences provided as examples of particle usage fail to provide enough linguistic and situational context. I suspect that it will take a syntactic analysis encompassing pragmatics, topicalization and discourse structure in order to gain a clearer understanding of the full functional range of these particles.

The following particles are listed as having a modal function:

ηa^{55}	declarative (also expresses first-person agreement or evidential status)
ze^{55}	declarative (also expresses second- and third-person agreement)
$(r)\eta^{55}$	declarative (generic, possibly a weakened form of ηa^{55})
o^{33}	imperative
a^{31}	negative imperative (in combination with pre-verbal negator a^{31})
wa^{55}	interrogative (appended to statements to make questions; also used in V-not-V questions)
le^{33}	interrogative (seems to be used mostly with question-word questions)

Li's discussion of sentence structure strongly suggests that Sangkong would be best analyzed in terms of topic-comment structure. Li employs a more traditional terminology, forcing him to divide simple sentences into two broad types: subject-predicate and non-subject-

predicate. In subject-predicate sentences, the predicate may be a verb phrase, an adjective phrase, a noun phrase, or a full subject-predicate sentence. Li's discussion of complex sentences is quite brief, spanning only five pages, and consists primarily of a listing of conjunctions and adverbs which can be used to combine simple sentences into more complex coordinated or dependent structures.

5. Comparison and Affliation

Chapter five presents what the author calls the results of a preliminary investigation into the historical relationships between Sangkong and other Lolo-Burmese languages. The chapter describes the sound changes which have taken place in Sangkong in initials, finals, and tones. Unfortunately, the author fails to provide either reconstructed forms or a description of the features present in the parent language. The material in this section draws on a series of papers Li published in the 1990s (among them Li 1992b, 1995, 1996, 2000) on various features of Proto-Lolo-Burmese (which he terms Gòngtóng Miǎn-Yíyǔ 共同缅彝语 "Common Lolo-Burmese"), which taken together provide an outline for a PLB reconstruction system. The abundant cognate sets presented here to illustrate the sound changes are a rich resource for the comparativist. Cognates are drawn primarily from Bisu, Phunoi, Mubi, various dialects of Hani, Jinuo, Lahu, Lisu, Yi, Nusu, Naxi, Zaiwa, Langsu, Bola, Leqi, Achang, and Burmese. Within cognate lists, these languages are abbreviated to a single Chinese character, as described above. Non-cognate morphemes in cited words are represented by a square. A double-slash ("//") is used to separate sets of cognates into classes according to the way they reflect particular proto-features.

For example, consider the first cognate set presented in the chapter, for 'deaf':

桑 paŋ³¹ ~ 哈 bo³¹ 彝 bo³³ 怒 bɔ̃⁵⁵ 傈 bo²¹ // 米 paŋ³¹ 普 □ pã 姆 □ poŋ¹ 基 pə⁴⁴ 拉 pɔ⁵³ 缅 pĩ⁵⁵

This set illustrates the devoicing of PLB initial *b. The tilde separates the Sangkong form from its cognates. The paired slashes separate those languages (Hani, Yi, Nusu and Lisu) which preserve the PLB initial unchanged from those (Mibisu dialect of Bisu, Phunoi, Mubi, Jinuo, Lahu and Burmese) in which it has devoiced to *p*. The squares in the Phunoi and Mubi forms indicate that the cognate morpheme is the second syllable of the words for 'deaf' in these languages.

Li cites the following sound changes which have taken place in Sangkong: 1) devoicing of initial voiced obstruents to voiceless unaspirated obstruents; 2) aspiration of voiceless initials in syllables with stop endings; 3) partial denasalization of nasal initials; 4) development of palatalized labials (from earlier "labio-linguals")[9]; 5) development of uvulars, which correspond to velars in most other languages (note Sangkong has unaspirated uvular stops where other languages have velar fricatives); 6) voiceless laterals become *h-* (mistakenly called a "velar fricative" here). There are a few surprising omissions from this

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9. According to Li 1989:32, "labio-lingual" (Chinese *chúnshé yīn* 唇舌音) refers to a type of cluster involving a labial consonant and an apical fricative or liquid. For convenience, Li also includes palatalized labials in this class. At the PLB stage, Li reconstructs these sounds as clusters of bilabials with *ɹ* or *l*.

list, notably the origin of the Sangkong nasal initials and of the sole voiced fricative z-.[10]

Among the characteristics of Sangkong finals are these: 1) preservation of *a; 2) preservation of nasal endings; 3) distinctive reflexes of stop endings (either preserved or reflected in tense vowels).

As for tones, in Sangkong the old A, B, C categories are preserved, while the D category split by vowel length. This pattern of development is identical to that found in Hani and Western Yi. On page 235 is a chart showing the reflexes of Tones A, B, and C in eighteen languages, which are categorized according to the nature of the tone splits and mergers. A similar chart is found on page 245 for the development of Tone D. For languages with split D tones, some splits were conditioned by initial voicing, and some by vowel length, while in some languages both were factors.[11] In the cognate lists that follow the chart, these abbreviations are used to characterize reflexes of Tone D:

D: an unsplit D tone
DL, DS: D-tone splits conditioned by vowel length (but not by voicing)
           [L= long, S=short]
D1, D2: D-tone splits conditioned by voicing (but not by length)
           [1=voiceless, 2=voiced]
D1L: a tone conditioned by both long vowel and voiceless initial
D2L: a tone conditioned by both long vowel and voiced initial
D1S: a tone conditioned by both short vowel and voiceless initial
D2S: a tone conditioned by both short vowel and voiced initial

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10. Matisoff (1993) has shown that the nasals derive from PLB "complex nasals" (including voiceless and preglottalized nasals), and the voiced palatal fricative from the merger of several PLB continuants.

11. Li (1995) first postulated a vowel-length distinction in PLB to account for certain patterns of tone split. Li (1992b) notes that although few Loloish languages today have a phonemic length distinction, nevertheless "vowel length distinctions are an inevitable concomitant phenomenon of tone". The length distinction is reconstructed based on Li's observation about length differences associated with particular Hani tone values.

An inverted apostrophe is appended to one of these tone designations when syllables in that tone in a particular language lack non-tonal reflexes (such as a tense vowel or stop ending) of the original checked syllable.

Li's PLB reconstruction lacks the numerous manners of articulation reconstructed by Western scholars such as James Matisoff and David Bradley. For example, consider the near-minimal pair found on pages 246 and 248, the Sangkong words *tha*^{33} 'sharp (of a knife)' and *tsha*^{31} 'connect, join'. The first is in the DL (long) tone, and the second in the DS (short) tone. The sound laws given by Li here and in his earlier works imply PLB reconstructions something like the following:

'sharp (of a knife)'	PLB *taːk > tha^{33}
'connect, join'	PLB *tsak > tsha^{31}

The Sangkong aspirated initials derive in Li's system from plain voiceless PLB initials. The tone split is accounted for by PLB vowel length.[12] While there is little doubt about the overall pattern of tone splits and correspondences that Li presents for Lolo-Burmese, it is by no means apparent that vowel length need be reconstructed at the PLB

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12. Unfortunately, I have been unable to find in any of Li's publications any fully reconstructed PLB forms. Li 1996 does provide reconstructed initial consonants, and Li 2000 gives reconstructed finals. But most cognate sets are not accompanied by reconstructed forms. I have therefore provided these reconstructed forms according to my understanding of Li's system. It is also possible that Li would reconstruct 'connect, join' as *tshak; in Li 1996 he notes that Matisoff's and Bradley's preglottalized obstruents are equivalent in his system to aspirates.

stage as a conditioning factor for tone splits. It is a relatively straight-forward exercise to ascertain whether the Sangkong checked tone reflexes can be accounted for within the accepted Proto-Lolo-Burmese reconstruction systems of Western scholars. In these systems, tonal splits are entirely accounted for by the manners of syllable initials and prefixes. For example, other scholars reconstruct the two roots above in this way:

> 'sharp (of a knife)'
>> PLB *tak   (Matisoff 1972, Bradley 1979)
> 'connect, join'
>> PLB *ʔdzak   (Matisoff 1972; Hansson 1989)[13]

(Sangkong data did not factor into these reconstructions.) The tone split in Sangkong may be accounted for here by voicing of the proto-initial, while the glottalization of the voiced initial of 'connect, join' causes it to merge with the plain series. If in fact all of the Sangkong tone splits can be accounted for in this way, then there is no reason to confuse the picture by adding a vowel-length distinction to the proto-language.

Following the summary of sound changes, Li presents a compari-son of core vocabulary using the well-known Swadesh 100 list. Sangkong is compared with Bisu (Mibisu dialect), Hani, Jinuo, Lahu, Lisu, Yi, Nusu, Burmese, Zaiwa, and Achang. The greatest numbers of cognates are found with Bisu, Hani, and Jinuo, in that order. (In addi-tion to the total numbers, the complete sets of cognates are given on the following pages.) On page 258 are listed eighteen Sangkong words

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13. Thurgood (1977:196) reconstructs *s-dzak.

from the Swadesh list for which Li could not identify cognates in any languages.

Following the sections on phonological and lexical comparison, Li carries out syntactic comparison, focusing on these topics: the expression of number in nouns, reflexive measure words, structural particles, personal pronouns and agreement particles. The author believes that reflexive measures are conservative, and reveal the origin of measure words as echoed forms of the nouns they count. For each syntactic category, the Sangkong situation is compared with other Lolo-Burmese languages, and numerous examples are given. In the case of personal agreement particles, Xixia (Tangut) is also brought into the comparison. Li believes that this feature connects Sangkong to the "pronominalized" (*dàicíhuà* 代词化) languages of Tibeto-Burman that show verbal agreement, and is an ancient retention in Sangkong. I am not convinced by Li's argument on this point. The inter-relationship of the so-called agreement system with the aspect and evidentiary systems suggests that a relatively recent, independent development is possible. Further examination of the data presented by Li is needed before a definitive conclusion can be drawn.[14]

In the final part of the chapter, Li identifies the affiliation of Sangkong. The results of the comparisons, taken together with Sangkong's typically Lolo-Burmese features, lead Li to conclude that

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14. Matisoff 1993 reaches a similar conclusion, and argues that the Sangkong person agreement marker ze^{55} derives from the Proto-Tibeto-Burman copula *way ~ *ray.

Sangkong is most closely related to Bisu, Phunoi and Mubi. This is Matisoff's "Bisoid" group.[15]   Hani and Jinuo are also closely related. The Tibeto-Burman family tree presented on page 279 divides the family up into five large groups: Tibetan, Qiang-Burmese, Jingpo, Kuki-Naga-Bodo, and Karen. Only the Lolo-Burmese sub-group of Qiang-Burmese is presented in any detail. Sangkong is placed in Southern Loloish, within the Loloish branch of Lolo-Burmese.

Appendices

In both content and layout, the word list is an improvement over similar lists found in other books in this series and in the older *Yŭyán Jiǎnzhì* 语言简志 ("Brief Linguistic Sketches") series. The word list is divided into two parts. The first part consists of the standard elicitation set of 1000 words found in the *Jiǎnzhì*, arranged semantically in the usual way. The second part, consisting of 1166 additional words numbered from 1001 to 2166, are presented in the same order of semantic categories as the first half. The word list proper is preceded by a helpful table of these semantic categories keyed to the word list numbers. I reproduce the table below in translation. The numbers for List 1 are applicable to all word lists which follow the old *Jiǎnzhì* pattern. Note that the words in List 2 are not necessarily any less basic than those in List 1; if the user is searching for a particular word, he may need to consult both lists to locate it. For example, among the first 20 words in List 1 we find 'sky', 'sun', 'moon', 'river', 'rain', 'hail', 'pond'; among

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15. Matisoff (1993:125) classifies Sangkong as Bisoid based on the Sangkong manner developments of PLB initial consonants.

the first 20 words in List 2 we find 'air', 'shooting star', 'lightning', 'flood', 'wave', 'upstream'.

		List 1	List 2
I.	Nouns		
	1. Natural World	1-44	1001-1074
	2. Directions	45-59	1102-1110
	3. Time	60-101	1075-1101
	4. Animals	102-168	1111-1204
	5. Plants	169-213	1205-1280
	6. The Body	214-273	1281-1372
	7. People	274-302	1373-1408
	8. Appellations	303-333	1409-1422
	9. Buildings	334-354	1423-1465
	10. Clothing	355-375	1466-1499
	11. Food	376-392	1500-1540
	12. Tools	393-456	1541-1645
	13. Transportation	457-465	1646-1659
	14. Culture	466-507	1660-1688
II.	Verbs	508-790	1689-1982
III.	Adjectives	791-899	1983-1994
IV.	Numbers	900-935	1995-2000
V.	Measure Words	936-956	2001-2065
VI.	Pronouns	957-986	2066-2068
VII.	Adverbs	987-1000	2069-2073
VIII.	Supplemental	--	2074-2166

The supplemental category contains a mixture of words of different types which should properly be placed in one of the other categories. Among the words found here are 'rainbow', 'spider web', 'king', 'carpet', 'wash (face)', 'busy', and 'very (many)'. If the reader is unable to locate a particular word under its category in List 1 and List 2, she should check the supplemental section.

Following the word lists are five complete oral texts, transcribed with Chinese interlinears and followed by Chinese translations. Some of these texts are quite long. As a counter-balance to the single-sentence examples found in the syntax chapter, they provide invaluable data for further analysis of Sangkong syntax and discourse patterns. Sentence-by-sentence translations in interlinear form would have made these texts even more accessible to analysis.

The bibliography is substantial, and reveals that Li is familiar with both Chinese and Western scholars' work on Sangkong as well as on Lolo-Burmese comparison. The sources for Li's linguistic data are not all found here, but are detailed in footnotes at appropriate places in the text.

The faults of the book are minor, and may be attributed in part to editorial and publishing practices for the series as a whole. The abundance of phonetic symbols (especially in Chapter 5, where data from many languages is presented) must inevitably put the reader on guard for typographical errors. The Chinese interlinears of example phrases, sentences, and texts are in some cases not sufficiently specific. For example, grammatical particles are either labeled simply "particle" (*zhù* 助) or are glossed with Chinese near-equivalents (such as the Chinese aspect particle *le* 了) that are potentially misleading. In both cases specific abbreviations would be preferable. In the former case one must turn to Chapter 4 and search for a discussion of the particle in question in order to identify its function; in the latter case one may be lulled into a false sense of equivalency between the Sangkong and Chinese forms.

Viewed as a whole, *A study of Sangkong* is an extremely valuable addition to our literature on Lolo-Burmese languages. Sangkong has a number of interesting features which make it valuable as an object of typological and comparative study, and this publication provides the interested reader with a single source for nearly all that is currently known about the language. Along with his presentation of data, Li has made a number of interesting proposals concerning the origin of Sangkong features which bear on the history of Lolo-Burmese and Tibeto-Burman as a whole. As a result, this work will surely remain an important reference for decades to come.

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