

Hsihsia, Tosu and Lolo-Burmese Languages

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We have so far treated the Hsihsia language as one rather isolated from Lolo-Burmese proper, of which Burmese and the Lolo languages are representative. However, some of its word forms have turned out to be fairly closely paralleled by the Tosu cognate forms. This may be considered due to the fact that Hsihsia and Tosu preserve the earlier linguistic strata well¹.

As one of the most striking features of these languages we may refer to the correspondence of Hsihsia/Tosu -i with the reconstructed TB * -a.

1. Hsihsia -i, -i : Tosu -i : WrB -a : Akha -a : Nyi-Lolo -a : TB -a

	Hsihsia	Tosu	WrB	Akha	Nyi	TB
'flesh'	t̥shi (L10)	˦shi	a-saa ²	šà-d̥zi	xa 11	*sha
'child'	rih (L11)	˦tshi.na.	saa ²	zà	za 11	*sra-
'food'	˦dzifi (R10)	˦dzi'liu.	a-caa	dzà-fiu	dza 11	*dza- 'to eat'

'salt' t̥hi (R28)-˦u : ˦tshi : chaa² : sà-dy : tsha 11 : *tshwa<tsha-ba

As the Tibetan cognates WrT *sha* 'flesh', *tshwa*<tsha-ba 'salt', *sras* 'child', *za-s* 'food', *za-ba* 'to eat' typically shows, the reflexes of this correspondence set are -a in most TB languages. Thus it is a rather peculiar feature of Hsihsia and Tosu that their reflexes are high vowels -i and/or -i. Even if we leave aside the question of whether the shift -a to -i could be assumed to have taken place in these forms, we may still say that they have at least this characteristic feature in common. Nevertheless, the forms with -i corresponding to -a in other TB languages do not always agree between each other. Hsihsia shows this peculiar correspondence in a wider range of the words. Even many Hsihsia forms that fit in the following correspondence set exhibit the i-vocalism.

2. Hsihsia -i, -i : Tosu -a : WrB -aa : Akha -a : Nyi-Lolo -a : TB *-a

3. -a, -a : -a : -aa : -a : -a : *-a

	Hsihsia	Tosu	WrB	Akha	Nyi	TB
2. 'thin'	mbifi (L11)	˦paa	paa ² -	jo-bà	ba 11	*ba, *phra-

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1. For the reconstruction of the Hsihsia language, see T. Nishida 1964-66, 1967 and 1969; Sofronov 1968; Kychanov 1969; Grinstead 1972. Only a limited number of the *Fan-ch'ie* was available to me at the time of writing 1964-66, the revision of which appeared in T. Nishida 1967. My recent view has been presented in my review of *More pis'men* by Kychanov, et al. 1969. The lineage of this language has been considered in T. Nishida 1973, Chap. 5, Sec. 3. For the most part, this paper is a translation of that section. L and R indicate the respective Level and Rising tones. The number given after them shows the rhyme number. Hsihsia had 97 rhymes for Level tone and 86 for Rising.

'negation'	mifi (L11)	: ˈma.	: ma ³	: mà	: ma 11	: *ma
'to get'	rir (L79)	: ˈwa.da.	: ra ³	: ?	: ɣa 33	: *gra-, *dra
'nose'	nifi (R12)	: -ya.ˈku	: hnaa-	: nà-mé:	na 44	: *s-na -bi 33
'hundred'	yir (R72)	: ˈya.	: raa<ryaa:	ti-já	: ha 33	: *br-gya
'moon'	hli (?)	: ˈlan ˈma	: la ³	: bà-la	: hla 44	: *zla
'ear'	niufi (R3)	: -ya.ˈyi.	: naa ² -	: nà-bó:	na 55	: *r-na -po 44
3. 'to come'	lhafi (L20)	: ˈla.	: laa-	: lá-fiu:	(li 33)	: *la-
'bitter'	khafi (L17)	: ˈkhaa	: khaa-	: jo-xà	: qha 11	: *qha-
'I'	hɲafi (R14)	: ˈɲa.	: ngaa	: ɲá	: ɲa 33	: *nga
'father'	pafi (L20)	: ˈaˈpaa	: a-pha	: ˈa-dá	: i 44	: *da~*pha -pi (L30) -ba 11

In that all the Tosu forms belonging to this correspondence set have -a, not -i, it is closer to written Burmese and Nyi-Lolo than to Hsihsia and Moso, in which the cognate forms under this correspondence set are divided into two different types of finals or rhymes: i- and a-vocalisms². However, supposing that Hsihsia forms indicating the finer distinction of vowels are considered to preserve an aspect of a stage earlier than Proto-Lolo-Burmese, we will be compelled to admit that a wide range of merger occurred among the Lolo-Burmese and Tibeto-Burman languages at a very early stage. Thus, on the basis of the above examples, we may set up the following correspondences:

Hsihsia

L10=R9	L11=R10	L14=R12	} : LB *-a
-i	-ifi	-ifi	
L30=R28	L79=R72	L3=R3 ³	
-i	-ir	-iufi	
L17=R14	L20=R17		
-afi	-afi		

There is a sufficient possibility that some other types of Hsihsia vowels may turn out to correspond to LB *-a. We must emphasize that the comparative study of Hsihsia and LB proper will have an important bearing on Lolo-Burmese linguistics in the near future. The probability is very strong that the reconstructed TB *-a is the result of merger of some of the earlier distinctive vowels that are kept separate in Hsihsia. It is also likely that some of the Tosu and Moso forms would be of great use to corroborate a merger of this kind.

In addition to its correspondence with TB/LB *-a, Tosu -i is found to

2. In this respect Moso also resembles Hsihsia and Tosu. Thus while the finals of kha 41 'bitter', ɲa 21 'I', mpa 51 'father', ma 33 'negation' are reflected as -a, those of tshe 51 'salt', zy 55 'child', ntsi 33 'to eat', ɲi 55 'nose', ɕi 33 'hundred', he 33 'moon' as a narrower vowel. Moso forms are cited from Fu Mao-chi 1943, but his notation is simplified.

3. Cf. p. 6 and p. 11 of this paper.

correspond to LB *-i, *-iy in many examples, while Hsihsia exhibits varied reflexes.

4. Tosu -i : WrB -ii, -ei : Hsihsia -eh, -u : WrT -i, -e,

	-ö		-i, -i̇		-u
	Tosu	WrB	Akha	Hsihsia	WrT
'near'	-fia-'ni	nii ² -sañ	x	nefi (L36)	nye
'red'	-ñi 'gold'	nii-sañ	jo-né	nefi (L36)	x
'to know'	(a)-sö	si ³ -sañ	ši-ñá-fu	sefi (R33)	shes-pa
'fire'	-mi.	mii ²	mì dzà	mən (L31)	me
'water'	-wi	riy>rei	'i-tšü	kz̥ir (R85)	chu
'wind'	-mō-'li	liy>lei	džà-lé	lifi (L29)	rlu-ng
'heavy'	-lii	liy ² <lei ²	x	lwin (L32)	lci

In a few cases, however, LB *-iy correlates to Hsihsia -i, -i̇ and Tosu -e, -u, -o.

	Tosu	WrB	Akha	Hsihsia	WrT
'bow'	-le-khö	liy>lei	tša-'ø	hl̥i (L69)	gzhu
'foot'	-ku'tu.	khriy>khrei	'a-khú	khi (L30)	rkang
'earth'	-mo-	mliy>mrei	mí tshà	ll̥i (R61)	gzhi

From these examples we may deduce the following correspondences between Hsihsia and Lolo-Burmese.

Hsihsia		Hsihsia
L29 -ifi	} : LB *-iy	L36-R33 -eh
L30 -i		L31 -ən
L32 -win		
L69-R61 -i̇		
R85 -ir		

5. LB *-u : corresponds to Tosu -ö, -ön : WrB -o<-u : Akha -œ : Hsihsia -u, -ur -ir : WrT -u.

	Tosu	WrB	Akha	Hsihsia	WrT
'sky'	-mō	mo ² <mw ²	mr̥n	mufi (L27)	—
'bones'	-yö.ku	a-ro ² <a-ru ²	šà jòè	r̥ir (L86)	rus-pa
'body'	-kōn	koy<ku	x	k̥ur (L84)	sku

Quite a few written Burmese and Hsihsia forms that fall under this correspondence set can be found⁴.

WrB		Hsihsia
uu ² khyo<khyu	'horn'	khw̥ (L28)
a-pho ² <phu ²	'value, price'	p̥ufi (L27)

4. Besides, the correspondence Hsihsia -iufi (L3/R3) : WrB -o<-u is also certain.

Hsihsia	WrB	Hsihsia	WrB
'such'	siufi (R3)	so ³	'to shoot'
'to store'	siufi (R3)	so-	thiufi (L3)
'to dye'	tshiufi (L3)	cho ²	tho ²
'smoke'	ñhiufi (L3)	mii ² -kho ²	'wave'
			mbiufi (L3)
			tan po ²
			'to send'
			mbiufi (L3)
			po ³ -
			'according to'
			mbiufi (L3)
			pho ³ -

<i>a-myo</i> ² < <i>myu</i> ²	'a kind'	<i>məh</i> (R25)
<i>po</i> ² < <i>pu</i> ²	'insect'	<i>məh</i> (R25)
<i>kho</i> ² < <i>khui</i> ²	'to steal'	<i>khɪr</i> (L92)

In the following cognate sets the Tosu forms have final -i, which may be in complementation with the above Tosu finals -ö, -ön. The split of the two might have been due to the nature of their initials.

	Tosu	WrB	Akha	Hsihsia
'finger'	'lo. 'pi :	<i>lak-ño</i> ² < <i>ñu</i> ²	: là ñcé	: nɛr (R76)
'blue'	'mō 'ñi :	<i>ño</i> ² - <i>sañ</i> ⁵ < <i>ñu</i> ²	: jo-ñcé	'green' : ɲɛr (R76)
'soft'	'pi 'mo :	<i>hño</i> ² - <i>sañ</i> < <i>hñu</i> ²	: ñcé-hu	'to wither'

In the following two cognate sets, the Tosu forms are not sure to fit in and may probably be exceptional.

	Tosu	WrB	Akha	Hsihsia
'smoke'	'mai.kha.	<i>mii</i> ² - <i>kho</i> ² < <i>khui</i> ²	ù-xòc	<i>mən</i> (L31)- <i>ɲiuf</i> (L3)
'nine'	'hai	<i>ko</i> ² < <i>ku</i> ²	gòc	<i>ngin</i> (L32)

'Smoke' is expressed in Burmese as *mii*²-*kho*² 'fire-smoke'⁶. Similarly, *mii*² 'fire' occurs as the first constituent in the compounds *mii*² *pho* 'fireplace' and *mii*² *hrui*² 'torch'. The corresponding Hsihsia words have a similar composition, but their first element is not always the word for 'fire'.

	WrB	Hsihsia
'smoke'	<i>mii</i> ² - <i>kho</i> ²	<i>mən</i> (L31)- <i>ɲiuf</i> (L3)
'torch'	<i>mii</i> ² <i>hrui</i> ²	<i>mən</i> (L31)- <i>ɲziur</i> (R70)
'fireplace'	<i>mii</i> ² <i>pho</i>	<i>pɲuf</i> (R3)- <i>yɪ'wo</i> (R50)

In the last example Hsihsia *pɲuf* (R3) signifies 'to burn', corresponding to WrB *prut* 'to boil (trans.)'.

As we will see in these examples, there are many other Hsihsia compounds whose construction is extremely similar to their Burmese equivalents. To give some typical examples:

	Hsihsia	WrB
'to burn'	<i>mən</i> (L31)- <i>lu</i> (R1)	<i>mii</i> ² <i>long-sañ</i>
'to be fat'	<i>tshu</i> (L1)- <i>nañ</i> (L17)	<i>chuu wa-sañ</i>
'to dye'	<i>tsɛ</i> (L68)- <i>tshɲuf</i> (L3)	<i>chei</i> ² <i>cho</i> ² - <i>sañ</i>
'lion'	<i>kaf</i> (R14)- <i>tšɛñ</i> (R25)	<i>khlang-sei</i> ³
'flea'	<i>kh^wi</i> (L30)- <i>luñ</i> (R25)	<i>khwei</i> ² <i>hlei</i> ²
'belly'	<i>ɲof</i> (L49)- <i>mañ</i> (L20)	<i>wam</i> ² <i>phok</i>

Together with the comparison of the phonemic forms of their cognates, the survey of the distribution of some particular word forms in Hsihsia and Tosu may help clarify their common character. Take for instance Tosu 'mai.tho.

5. 'to be dark in colour; between blue and black; to be of a deep-blue or green' Judson (*Bur.-Eng. Dict.*; 440).

6. Mien-Tien A has [a-khou]; cf. T. Nishida (1972: 83).

'knife'. The second morpheme *-tho*, clearly corresponds to WrB *thaa*² and WrT *sta-ri*, but the first morpheme *'mai* have its counterpart in neither WrB nor WrT. We find the cognate forms of this element to be distributed among the Lolo-Burmese languages as in the following:

Tosu	<i>'mai -tho</i> .	Lahu Na	<i>a-tho</i>
Nyi-Lolo	<i>mi 55 tha 11</i>	Lisu	<i>a-thaa</i>
Ahi-Lolo	<i>mi¹ tho⁴</i>	WrB	<i>thaa</i> ²
Akha	<i>mì tšhé</i>	Maru	<i>sheng</i>
Bisu	<i>hmja-than</i>	Lashi	<i>shám</i>
Lahu-Shi	<i>mi-te</i>	WrT	(Hon.) <i>phyag shan</i>
Hsihsia	<i>mbir (L86)</i>	Moso	<i>žo 51 'sword', žo 51-the 55 'knife'</i>

The form corresponding to *mai-* is already lost among the languages in the rightside column, while it is still retained among those in the leftside column. It is observed that Hsihsia, like Tosu, preserves the element derived from **mai-*. Including this form, then, we may suppose that there were four distinct TB forms for 'knife', corresponding to *mai (mi)-*, *thaa*, *sham (zhan)* and WrT *gri*, of which *thaa* and *sham* may be cognate to Chinese 刀 *tâu* < *tog* and 鋸 *sjäm* < *srjäm* 'sharp', respectively⁷.

The forms for 'white' and 'snake' have one and the same initial in both Tosu and Hsihsia, but this is not the case with the other Lolo-Burmese languages.

	Tosu	Hsihsia	WrB	Moso
'white'	<i>'wai 'co</i> .	<i>phion (L55)</i>	<i>phluu > phruu</i>	<i>pho</i>
'snake'	<i>'wo 'pha</i> .	<i>phiow (R43)</i>	<i>mluy > mrwei</i> ⁸	<i>zhi</i>

From the examples given so far, it is seen that Tosu *w-* was derived from many originally distinct initials, such as *r-* and *ph-*. I give several other examples here to show its sources:

	Tosu	Hsihsia	WrB	WrT
'rain'	<i>'wa -ju</i>	<i>vir (R71)</i>	<i>rwaa < rʷɔh</i>	<i>×char</i>
'rat'	<i>'wu</i>	<i>vi (L10)</i>	<i>pwei² < puy²</i>	<i>byi-ba, byu</i>
'below'	<i>'wa</i> .	<i>wi (R9)</i>	<i>'ɔk</i>	<i>hog</i>
'head'	<i>'wu -ju</i>	<i>ɣuɦ (L4)</i>	<i>'uu²</i>	<i>dbu (Hon.), mgo</i>
'wine'	<i>'wu</i>	<i>ɣɔɦ (R42)</i>	<i>a-rañ</i>	<i>×chang</i> ⁹
'silver'	<i>'wu</i>	<i>ɳɔɦ (R42)</i>	<i>ngwei < nguy</i>	<i>ngul</i> .

7. Maru-Lashi *sham* corresponds to WrT *shan*, but these may be in their turn cognate to WrB *khywan* 'sharp'.

8. For WrT stop: WrB nasal as seen in the example of 'snake' WrT *sbrul*: WrB *mrwei* < *mluy* we have the following parallel examples:

	WrT	WrB	WrT	WrB
'border'	<i>mithaa</i>	<i>a-naa²</i>	'body-hair'	<i>spu</i> <i>a-mwei²</i> < <i>muy²</i>
'king'	<i>dbang-po</i>	<i>mang²</i>	'incense'	<i>spos</i> <i>a-hmwei</i> < <i>hmuy</i>
'with'	<i>dang</i>	<i>hnang³</i>	'monkey'	<i>sprehu</i> <i>myok</i>

cf. Sedláček, 1962.

9. I compare this form WrT *chang* with WrB *se* < *siy*.

Though WrT *nyan-thos* 'Śrāvaka (聲聞)' became *-nan-tho* in Tosu, it tended to change BL *n- to y-.

	Tosu	Hsihsia	WrB	WrT
'ear'	-ya. -yi.	n̥iufi (L3)	naa ²	rna-ba
'nose'	-ya. -ku	n̥ifi (R12)	hnaa	sna

Hsihsia *n̥iufi* may be analyzable as composed of two morphemes *ni - ufi*, but Tosu form *-ya.-* is unique in the Lolo-Burmese languages. The following Tosu forms also have the initial y-¹⁰.

	Tosu	Hsihsia	WrB	Nyi	Moso
'low'	-ya. 'mo	n̥ien (L42)	nim ³	næ 44	hy 31
'house'	-ya.	'y̥ien (R37)	'im	hæ 33	çi 55
'hundred'	-ya.	'yir (R72)	raa<ryaa	ha 33	çi 33

Taken as a whole, it may appear that the similar features of Tosu and Hsihsia are not very conspicuous. However, let us further consider their similarities with regard to the characteristic features of Hsihsia.

First of all, I would like to emphasize the fact that the Hsihsia language has, in general, forms much closer to their LB cognates (especially Burmese cognates), than to their Tibetan cognates. This may be most typically represented by the cognate forms for 'dog' and 'leg'.

	WrT	WrB	Hsihsia	Tosu
'dog'	<i>khyi</i>	<i>khwei</i> ² < <i>khuy</i>	kh ^w i (L30)	khōN
'leg'	<i>rkang-pa</i>	<i>khrei</i> < <i>khriy</i>	khi (L30)	ku 'tu. ¹¹

The Hsihsia rhymes *-w̥i* 'dog' and *-i* 'leg' both belong to level tone 30, but they are distinguished clearly in their *Fan-ch'ieh* (反切) spellings as the *Ho-kou* (合口) and the *K'ai-kou* (開口). This distinction must be kept whatever method of representation we may adopt for these categories. The correspondences of these distinct finals (Rhymes) with the respective WrB finals are well established. However, we will encounter difficulty when we try to adapt them to the other comparable

10. It is seen that Hsihsia preserves the TB distinction of these initials while they are partially merged in Nyi-Lolo and Moso, but completely merged into y- in Tosu.

TB	WrT	Anc. Bur.	Hsihsia	Nyi-Lolo	Moso	Tosu
*n-	x	n-	n-	n-	h-	} y-
*khy-	<i>khy-</i>	*i-	} y-	} h-	} s-	
*brgy-	<i>brgy-</i>	ry-				

The examples of 'ear' and 'nose' may be represented as follows;

TB	WrT	Anc. Bur.	Hsihsia	Tosu
*rn-	<i>m-</i>	n-	} n-	} y-
*sn-	<i>sn-</i>	hn-		

The same change from n- to y- also appears in Miri and Apa Tanang of the Abor-Miri group, as shown in 'nose' and 'ear'.

	Miri	Apa Tanang	Tagen	Yano
'nose'	yebung	yapin	cf. nyepöm	nyepöm
'ear'	yerung	yaru	nyeru	nyerung

N. L. Bor, 1938.

11. Tosu_ku 'tu. corresponds to WrB *khrei thok*.

cognate sets, even though the example 'spring' Hsihsia n^wi (R28): WrB *nwei*<nuy shows quite parallel correspondence with 'dog'.

	Hsihsia	WrB
'flute'	liu (L2)	: <i>palwei</i> <luy
'saliva'	tiü (L59)	: <i>tam twei</i> ² <tuy ²
'blood'	sefi (L36)	: <i>swei</i> <suy
'silver'	ŋɔh (L49)	: <i>ngwei</i> <nguy
'snake'	phiow (R43)	: <i>mrwei</i> <mluy
'hair'	mwe (R30)	: <i>mwei</i> ² <muy ²

None of these examples fit into either of the correspondences WrB *-wei*<-uy: Hsihsia *-w*i or WrB *-ei*<-iy: Hsihsia *-i*, deduced from 'dog' and 'leg' above. Still, taking each of these examples, we feel that each equation is certain. We must then set up so many correspondence sets to explain these equations, and recognize a diversity of sources for WrB *-wei*<-uy.

The following procedure is not a particularly complicated task: to search for the morpheme with a given meaning or the morphemes with some related meanings in each of the languages in question: to examine its phonemic form or forms: and then to establish phonemic correspondences between these languages on the basis of the cognate sets thus recognized. The task is all the simpler, in fact, when the meaning of a morpheme in question refers to the name of an object. In such cases the main problem will be how to recognize a given form in one of the languages as cognate to a form in some other language. Nevertheless, it is another thing whether the correspondences thus recognized could be regarded as a general rule that can be applied to all of the languages of the linguistic group concerned.

It is not a difficult matter to determine the equivalent forms in Hsihsia with so rich a vocabulary at the present stage of our study. Even so, due to the marginal character of Hsihsia, it will take yet considerable time to accomplish the comparative study of this language.

I would divide the procedures for a comparative study of this language into the following four stages. First, determine the reliable Hsihsia cognate forms among the other related languages, especially the Lolo-Burmese languages, so that correspondences between Hsihsia and each of these languages may be established.

For instance,

	Hsihsia	LB	Maru-Lashi	Tosu	WrT
'bridge'	son (L54)	*dzam	dzam	'tσα.	<i>zam-pa</i>
'man (homo)'	*dzɔh (R44)	*dzang	×byu	ʼsu	× <i>mi</i>
'ten thousands'	khi (R28)	x	×mun	×mō.	<i>khri</i>
'blue'	ngih (L11)	x	x	ʼni	<i>sngon-po, sngo-ba</i>
'waist'	*dʒiəw (L45?)	*dʒu	*thuəm	?	× <i>rked</i>

As a matter of course, we have to find other examples of sets of correspondences thus recognized. At present, no other examples exactly parallel to 'bridge' above (Hsihsia -ON (L54): LB *-am) have yet been found, but the following show a similar correspondence (Hsihsia -ĩwON (L56/R49); LB *-am):

	Hsihsia	LB	WrT
'iron'	šĩwON (L56)	*sam	×lcags
'otter'	šĩwON (R49)	*p-yam < *p-syam	sram.

Second, we must decide whether the form of a given Hsihsia word is found in the stock of Tibetan, Lolo-Burmese or some other group of languages. Among the examples given above, the form for 'man (homo)' and 'waist' belong to the LB stock while those for 'blue' and 'ten thousands' to the Tibetan stock. Strictly speaking, it is difficult to decide conclusively the affiliation of a given Hsihsia form to one or the other stock. For it is often the case that we cannot say definitely that its cognate forms are found only among the Lolo-Burmese languages, and not among the Tibetan languages.

For instance, Hsihsia tshɿ (L68) 'lungs', WrB *a-chut* and Tosu 'tsö -pu may be taken to have derived from the same proto-form while WrT *glo-ba* obviously from a different one.

To give several other such examples:

	Hsihsia	LB	Tosu	WrT	
'incense'	šĩa (L19)	*nam-saa	˘so.	×spos	LB stock
'hawk'	lɿ (L63)	*sim ²	˘khö	khra, glag	Tibetan stock
'horse'	riɿ (L74)	*mrang ²	˘mo.	rta	LB stock
'to come'	laɸ (L20)	*laa	˘la.	×ong-ba	LB stock
'to get'	rir (L79)	*ra ³	˘wa-da.	thob	LB stock
	rir (R72)				

Such a procedure is also intended for investigating the distribution of the later changed forms of a given morpheme among the Tibeto-Burman languages.

According, this constitutes the third task. Take the Hsihsia forms for 'to give' for example. There are two morphemes in Hsihsia for it: khĩwON (L56) and khien (L42), which may be used in combination as khĩwON-khien. The only cognate forms that we may refer to at present are Tosu 'khö and Lisu gũh-'ah. In most other TB languages we find the forms *biy- and *khio- for 'to give':

TB	WrT	WrB	
*biy-	<i>sbyin-</i>	<i>pei</i> ² -< <i>piy</i> ² -	
	Hsihsia	Tosu	Lisu
*khio-	khĩ ^w ON	`khö.	gũh-`ah
	khien		

There were three different TB forms *gu-, *wat-, *dum- for 'to put on'.

TB	WrT	WrB	Nyi	Lisu	Akha	Tosu	Hsihsia
*gu-	gon-pa	x	qhu 44	gu-'ah	x	x	x

*wat-	x	wat	vi 2	x	x	wai-	vɛ̃ (R54)
*dum-	x	x	dy 2	x	dm̩	x	x

Besides, the distribution of the forms for 'to put up (=to spread) an umbrella'; 'to put on (a bamboo hat)' and 'umbrella; bamboo hat' is found as follows:

	WrB	WrT
'umbrella'	thii ²	gdugs
'to put up; to put on'	chəŋg ² -sañ	gdugs h̥bubs-pa

We may suppose that the noun *a-chəŋg² derived from WrB *chəŋg²-sañ* existed, to which the Chinese 伞 *sang 'umbrella' corresponds. Bisu t̥səŋ-ŋe 'to put on a bamboo hat' is also cognate to WrB *chəŋg²-sañ*. Hsihsia has the following three distinct forms:

t̥ʃiɛ (L34)	(noun)	'umbrella'
t̥ʃiɛ (R31)	(verb)	'to put on a bamboo hat'
t̥ʃh̥iow (R43)	(verb)	'to put up an umbrella'

WrB *chəŋg²* signifies 'autumn' as well, to which Hsihsia tshɰ̃ (L68) can be equated. But the correspondence between these two cognate forms does not agree with the one set up between those for 'bamboo hat'¹².

The Hsihsia, WrB and Tosu cognate forms for 'spring' and 'autumn' parallel each other well.

	Hsihsia	WrB	Tosu
'spring'	n ^w i (R28)	nwei	'ñu.
'autumn'	tshɰ̃ (L68)	chəŋg ²	.t̥ʃhu

As the following examples show, WrB *-əŋg* corresponds to Hsihsia -u, -ɰ̃, -iŋ.

	Hsihsia	WrB
'to bend a bow'	thu (L1)	thəŋg-sañ
'thousand'	tɰ̃ (L58)	thəŋg
'to hide'	lu ₂ (R1)	hləŋg-sañ
'harp'	sɪŋ (R29)	cəŋg ²

cf. also 'to burn' above.

Similarly, WrB *-ɔk* corresponds to Hsihsia -ɰ̃.

	Hsihsia	WrB
'backside'	kɰ̃ (L58)	kyɔk
'stone'	lɰ̃ (L58)	kyɔk < klɔk

Following, I gave some other correspondences between Hsihsia and Written Burmese.

Hsihsia -on, -ofɰ̃, -ɔ̃, -ɔ̃r correspond to WrB *-um*.

	Hsihsia	WrB
'to use'	ʃofɰ̃ (L48)	sum ² -sañ
'warm'	lon (R47)	lum-sañ

12. In parallel with this we have Hsihsia -ow: WrB *-əŋg* for Hsihsia low (L53): WrB *ləŋg²-sañ* 'to bet'.

'round'	lon (R47)	<i>lum²-sañ</i>
'to collect'	tšion (L55)	<i>cum-sañ</i>
'three'	sɔ̌ (L70)	<i>sum²</i>
'mortar'	tsɔr (L91)	<i>chum</i>

Hsihsia -ɛN, -ien correspond to WrB -im, ip.

	Hsihsia	WrB
'cloud'	nɛN (R55)	<i>tim</i>
'house'	·yien (R37)	<i>·im</i>
'bag'	·yien (R37)	<i>·it</i>
'low'	ndien (L42)	<i>nim³-sañ</i>

Hsihsia -i corresponds to WrB -it, -ip.

	Hsihsia	WrB
'goat'	tshi (L30)	<i>chit</i>
'to sleep'	·i (R28)	<i>·ip</i>
cf. 'shadow'	rɛr (R76)	<i>rip</i>
'to shut'	phe (L37)	<i>pit-sañ.</i>

The last two examples are not certain since there is a possibility that we may give a different Hsihsia cognate for each.

In the foregoing I have shown the examples for WrB -ɔng: Hsihsia -u, but Hsihsia -u is found in more examples to correspond to WrB -u.

	Hsihsia	WrB
'thick'	tu (L1)	<i>thuu-sañ</i>
'fat' (adj.)	tshu (L1)	<i>chuu</i>
'soft'	nu (L1)	<i>nuu</i>
'similar'	ndu (R1)	<i>tuu-sañ</i>
'shape'	su (R1)	<i>chuu</i>
'chopstick'	ndu (R1)	<i>tuu</i>
'intestines'	vü (R2)	<i>uu</i>
'head'	ɣuñ (L4)	<i>uu²</i>
'hammer'	tíuñ (R3)	<i>tuu</i>
'to help'	·u (R51)	<i>kuu-ñii-sañ</i> ¹³
cf. 'egg'	təw (L43)	<i>u³</i> ¹⁴
'year'	kíw (L45)	<i>khu³</i>

To Hsihsia -ü (R2), -üñ (L3) corresponds WrB -aa.

13. We have the following examples for the correspondence Hsihsia ·-(zero): WrB k-:

	Hsihsia	WrB	WrT
'saddle'	·i (R60)	<i>ka³</i>	<i>sga</i>
'hen'	·yar (R75)	<i>krak</i>	
'eight'	·yar (L82)	<i>hrac</i>	<i>brgyad</i>
'big'	lɛ (R54)	<i>krii²-</i>	
'to look'	lef (R33)	<i>krañ³-</i>	
'stone'	lɔ̌ (L58)	<i>kyok < klɔk.</i>	

14. This Hsihsia form corresponds to TB *thul (cf. Tiddim Chin 'tuui, Lushai tui); cf. Benedict TB *twiy (1972: 45).

	Hsihsia	WrB
'fish'	ńźiu (R2)	<i>ngaa</i> ²
'flesh'	śiu (R2)	<i>a-saa</i> ²
'to seek'	˙yiu (R2)	<i>hrraa-saň</i>
'ear'	hnjufi (L3)	<i>naa</i> ²

Side by side with śiu (R2) above, there is another form tšhi (L10) for 'flesh'. The latter form raises the important question of whether it is analyzable into two morphemes: śi-˙u, the second element of which might have functioned as a 'diminutive' suffix. If so, then might it be possible to consider the forms for 'fish' and 'ear' equally constructed as ńźi-˙u and ni-˙ufi? A similar question arises in the case of Hsihsia křaň (L21): WrT *ka-ba* 'pillar'. There is a possibility that the correspondence Hsihsia -iaň: WrT -a may be justifiable. But it is also possible to assume that, since the correspondence Hsihsia -i: TB *-a is a fundamental one between Hsihsia and TB, it will enable us to analyze the Hsihsia form as ki-˙aň, and that Hsihsia might have had a suffix corresponding to Tibetan -ba, -ma at an earlier time but later fused it with the stem. Such a position will contribute, however partially, to reduce the number of Hsihsia rhymes from the standpoint of the comparative linguistics. But since this question involves discussion of the nature of morphemes to be treated as suffixes, I shall leave it for future investigation.

Fourth, our consideration will center upon the parallelism that obtains among the divisions of semantic fields. For instance, the semantic fields of 'black', 'deep' and 'night' share the common part 'black'. These semantic fields are divided in WrB, Hsihsia and WrT as follows:

	WrB	Hsihsia	WrT
'black'	<i>nak-</i>	hnřiafi (L21)	<i>nag-po</i>
'deep'	<i>nak-</i>	nafi (L17)	<i>zab</i>
'night'	ńa ³ ~ńaň ³	hnafi (L17)	<i>mtshan</i>

In addition to ńa³, ńaň³, WrB retains *nak* in compounds such as *nak-phran* 'tomorrow', where *nak* may be taken to stand for 'night', hence the compound as a whole signifying 'to pass the night'. The Hsihsia equivalent of this WrB form is hnafi (L17)-rar (R73), and the Hsihsia character for hnafi is made up of that for 'night' with one semantic element replaced by the one for 'to pass'. In Hsihsia the first morpheme of the compound for 'tomorrow' is the same morpheme with that for 'night' while the second one with that for 'to flow'. Thus the Hsihsia word for 'tomorrow' is expressed as 'the night flows'. Incidentally, WrB ńa³ corresponds to Hsihsia ńi (R28). Hsihsia -afi (L17/R14), -afi (R17), -ar (L82/R75), -a (R56) correspond to WrB -ak, -ap.

	Hsihsia	WrB
'needle'	řafi (L17)	˙ap
'to weave'	lafi (L17)	<i>rak-saň</i>

'pig'	vañ (L17)	wak
'to dip up'	khafñ (R17)	khap
cf. 'hen'	·yar (R75)	krak
'to stand'	·yar (L82)	rap-sañ
'leaf'	phə (R56)	phak

As we have seen above, the majority of Hsihsia forms are closely similar to their Lolo-Burmese cognate forms. However, their final forms are by far more finely distinguished one than those in any Tibeto-Burman languages. Thus arises the question of whether we should consider Hsihsia forms to represent a much earlier stage than any other Tibeto-Burman languages. Or was Hsihsia a language where more elements from other languages got mixed in even though the fundamental stratum of the language was from the common Lolo-Burmese? The investigation of this question will be the most significant task for the comparative study of the Tibeto-Burman languages as well as that of the Hsihsia language¹⁵.

15. In a previous paper, I remarked on the lineage of the Hsihsia language as follows: "I am of the opinion that all the ruling tribes of the Hsihsia kingdom such as the Phing Hsia clan of Tangut, the Mi tribe and their royal family that represented the Tho-Pa clan and the Mi-nyak were people of Tibetan origin, and were in the closest relationship with the Ch'iangs. ...On the assumption that there existed a national language of Hsihsia that was based on the language of the Mi but was inclusive of the vocabularies of the languages of the other tribes as well, it is possible to prove that the language was not of the Hsien-Pi (Altaic) but Tibeto-Burman. ... 1. Hsihsia formed the aspect expressions by the affixation of a prefix to the verb stem. For instance, 'a- was prefixed to the perfect form like 'a-thifi 'drunk'—thifi 'to drink' and 'a-lɿ 'frightened'—lɿ 'to fear'. Though this kind of prefixation is not found among the Altaic languages, it is found among the Tibeto-Burman. Thus the following derivational process of Ch'iang may be equated to it: de-thi 'drunk'—thi 'to drink, de-qu 'frightened'—qu 'to fear'. 2. The transitive and intransitive forms of some Hsihsia verbs were distinguished by contrast for a vocalic feature (glottalized: non-glottalized).

lu (L)	to get mixed'	thifi (L)	'to drink'	mbifi (R)	'to below'
lɿ (L)	'to mix'	tɿ (L)	'to give to drink'	mbi (L)	'to make below'

It is supposed that this process was not productive in the twelfth century Hsihsia language already, but this feature agrees with that of some Tibeto-Burman languages, esp. Lisu and Lahu.

In the vocabulary of Hsihsia we find more loanwords from Chinese than we would expect. With the progress of our reconstructions of Hsihsia forms, hitherto hidden Chinese loans may have been brought to light. However, the native forms of Hsihsia are mostly of Tibeto-Burman origin. For instance, there are two different forms for 'tears': me-lwi and me-mbi. The second element -lwi in the former word is a loan from Chinese, but -mbi in the latter corresponds to the second elements of Akha mja-bi, Hani ma-pi and WrB *myak-rañ* < prañ 'pus' of Lolo-Burmese. In such respects, we can consider the Hsihsia language as one of the Tibeto-Burman languages" (T. Nishida, 'The Character of the Hsihsia Kingdom and its Culture' *Iwanami's World History* 9, 1970: 66-67). Incidentally, an interesting article on the prefixes of Hsihsia has appeared: K. B. Keping: "A Category of Aspect in Tangut," translated, with comments, by Eric Grinstead, *Acta Orientalia* 33, (1971: 283-294).

Unfortunately, the Survey of Chiang is not yet developed enough to draw a definite conclusion on its linguistic position among the Tibeto-Burman languages, but it is sure that Chiang contains a fair amount of cognate words with Hsihsia as enumerated below (The Chiang forms here cited are quoted from K. Chang 1967 TS=Tsentg'ou Hsiachai dialect, C=Chiutzu Ying dialect).

TS	C	Hsihsia	WrT	
qə	qə	kh ^h ow (R43)	h ^h kyud-pa	'to be able'
qu	qu	kh ^h ir (L92)	rku-ba	'to steal'
qha	qha	khafi (L17)	kha-ba	'bitter'
qhe	khri	kh ^h iě (R8)	x	'rice'
kwæ		kha (R15)	x	'shade'
khwə	khwə	kh ^h wi (L30)	khyi	'dog'
gwə	hgwə	ng ^w in (L32)	dgu	'nine'
thje	thje	thi ^h (L11)	h ^h thung-ba	'to drink'
də	di	tu (R1)	sran-ma	'bean'
			<*sdran-ma	
pæ	pje	vaf (L17)	phag	'pig'
pu	pu	wi (L10)	byed-pa	'to do'
pəʃje	pəse	pi (L30)-sefi (L36)	x	'now'
pu	hpu	p ^h (L68)	x	'pus'
pho	pho	phu (L1)	x	'tree'
phsi	phri	phion (L55)	x	'white'
bje	bji	ph ^h i (L67)	x	'urine'
bə	h ^h bə	vi (L8)	h ^h brug	'dragon'
pu	pu	mafi (R17)	x	'belly'
phə	phə	m ^h un (L31)	h ^h bud-pa	'to blow'
ba	ba	mafi (L17)	x	'to return'
bu	bu	mbafi (L17)	x	'deaf'
be	ba	mbifi (R10)	dma ^h	'low'
buu	buu	mbifi (L11)	(phra-ba)	'thin'
bu	h ^h bo	mbar (L80)	x	'drum'
xe	xe	ʔaf (L17)	khab	'needle'
hady	xadu	ʔa (R56)	x	'ten'
xola	xwəla	lur (L84)	h ^h krud-pa	'to wash'
ši	ši	ši ^w on (L56)	x	'iron'
ši	si	ɛziər (R78)	gzig	'leopard'
ʃjeqə	ʃjeqə	ndzi (L67)	gzer	'fingernail'
ʃjəli	sazi	ʃu (L28)	x	'thread'
syæmæ	swama	ʃof (L48)	x	'to sweep'
ʃyæ	swa	səw (L43)	gsal-ba	'bright'
ʃjæ	se	sɛ (R54)	x	'to write'
ʃe	sa	sifi (R10)	shi-ba	'to die'
sala	sahqə	si (L8)	so-ma	'hemp'
sa	sa	sefi (L36)	x	'blood'
	so	su (L1)	x	'than'
swuu	pʃuu	tʃhi (L10)	so	'tooth'
zwuu	bʃuu	si (L30)	sa-bon	'seed'
hwa	ʔwa	ŋʔu ^h (L27)	lga	'five'
ho	ʔo	lu (L58)	rdo	'stone'
žwi	i	yar (R75)	x	'chicken'
zi	ri	yar (L82)	x	'to stand'
zwuu	bʃuu	rar (L82)	zhing	'field'
læ	le	llə (L63)	x	'thick'
ly	lu	la ^h (L20)	x	'to come'
tso	tsolo	lu ^h (R25)	x	'flea'
tso	tso dza	tʃhion (L55)	h ^h ching-ba	'to tie'
tswuu	ptsuu	ɛzir (R85)	chu	'water'
tswuu	hptʃuu	sio ^h (R44)	x	'sweat'
tʃhə	tʃhə	ndzien (L42)	tshe	'time'
	tʃhuu tʃhuu	tsi ^h (L59)	x	'spider'
	tʃhu	safi (L20)	gsod-pa	'to kill'

tshə	ʔtshu	tshi (L10)	sha	'meat'
tshə	tshə	tshi (R28)-u	tshwa	'salt'
tshə	tsha	tshi (L30) 'goat'	x	'a kind of sheep'
tshu	tshu	tshə (L68)	x	'lung'
	'to cough'			
tshjeda	tshe	son (L54)	zam-pa	'bridge'
tshi	ʔtshi	sə (L70)	gsum	'three'
džjo	džjo	ʔdžof (L48)	x	'hole'
dži	dži	khi (L30)	rkang-pa	'foot'
dzo	dzo	safi (L17)	rtswa<rtsa-ba	'grass'
dze	dze	ʔdziofi (R44)	x	'long'
dzo	dzo	ʔdzu (R5)	bzhug-pa	'to sit'
dzu		ʔziu (R2)	nya	'fish'
	ptshu	ʔzər (R84)	x	'mountain'
	bdzu	tshi (L10?)	hju-ba	'to melt'
šidžje	htšidze	ʔdziən (L42)	x	'money'
tšu	htšu	tshiəw (L46)	drug	'six'
	tsu	ʔdzi (R7)	zha-nye	'tin'
ŋa		hŋafi (R14)	nga	'I'
ŋu	hŋu	ŋofi (R42)	dnɡul	'silver'
ŋyŋy	ŋyŋy	nəw (L43)	nu-ma	'breast'
ŋi	ŋi	hniafi (L21)	nag-po	'black'
ŋi	ŋhi	nefi (L36)	x	'red'
no	no	nifi (R10)		'you'
ni	nə	nin (L32)	gnyis	'two'
nike	nəka	nifu (L3)	rna-ba	'ear'
nhe	nhe	nen (R36)	snabs	'nasal mucus'
niqopə	nhəpaqə	nifi (R12)	sna	'nose'
mi	mi	me (L33)	mig	'eye'
mə	mə	mir (L86)	mi	'man'
mæŋy	many	mow (L53)-wi (L10)	x	'cat'
mu	mu	mur (L75)	mun-pa	'dark'
mi	mi	mifi (L11)	ma, mi	'negation'
mhə	mhə	me (R30)	x	'hair'
	hmə	miefi (R35)	ming	'name'

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