

The classification of Cosao: a Lolo-Burmese language of China and Laos

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0. Introduction

This handout is divided into 3 sections.

1. Computational phylogenetic analysis of the Southern Loloish languages
2. Siloid: a new branch of Southern Loloish
3. The position of Cosao within Siloid

1. Computational phylogenetic analysis of the Southern Loloish languages

This study was done as part of my large-scale Southern Loloish (Southern Ngwi) classification and basic vocabulary comparison project. There are over 60 languages and sources in my Southern Loloish database (Figure 6), most of which are not on STEDT (<http://stedt.berkeley.edu/~stedtcgi/rootcanal.pl>). Over 300 lexical entries have been entered for most languages. The database is available upon request.

SplitsTree 4.0 was used to computationally generate phylogenetic networks and trees. The NJ (Neighbor-joining) was algorithm used to generate trees, while NeighborNet was used for networks (star diagrams). The results are mostly based on lexical isoglosses. There are 43 taxa (Cosao has not been included; its position would be nearly identical as that of Khir). About 100 words were selected. The majority of languages were from Kingsada (1999), Shintani (2001), and Kato (2008).

The computational results strongly support the coherence of Ziwo Lama's (2012) *Hanoid* and *Bisoid* branches, as well as a new branch that I will call *Siloid*, consisting of Sila, Khir, Cosao, Phusang (Paza), and Phana' (Bana). Previously, partly due to the paucity of data, Sila and related languages previously been grouped as Akha dialects rather than as constituting a separate branch within Southern Loloish. The results did not show *Bi-Ka* to be a coherent branch, although Li (1986) and most other Chinese linguists consider *Bi-Ka* to be a valid group. *Jinuo* is an outlier and is best treated as a separate branch of Southern Loloish. Sadu, Lahu, and Kucong are outliers that did not group with the rest of the Southern Loloish languages. (See Figures 1 and 2 for the complete network and tree diagrams of Southern Loloish.)

Hence, the following tentative classification of Southern Loloish is proposed.

Southern Loloish (5 branches)

1. Hanoid
2. Bisoid
3. Siloid
4. Bi-Ka (?)
5. Jinuo

1. Hanoid

- Ko-Pala, Ko-Luma
- Core Hanoid branch
 - Hani branch
 - Hani
 - Haoni languages: Haoni, Baihong, Suobi
 - Akha branch
 - Muteun
 - Core Akha branch
 - Akha-Nukui, Ko-Phuso
 - Ko-Puli
 - Ko-Chipia
 - Ko-Eupa
 - Ko-Nyau
 - Ko-Oma

2. Bisoid

- Khongsat
- Laoseng
- Sangkong
- Pyen
- Core Bisoid branch
 - Lao-Pan
 - Bisu
 - Phunoi
 - Phongset
 - Phongku (Phu-Lawa)
 - Phunyot

3. Siloid

- Wanyä
- Core Siloid branch
 - Phusang
 - Khir, Cosao
 - Sila (Sida)

4. Bi-Ka (?)

5. Jinuo

Using the Chinese system of linguistic classification, which distinguishes among *tuyu* 土语 (patois or language), *fangyan* 方言 (dialect group or local language), and *yuyan* 语言 (language or macro-language), and *zhixi* 支系 (branch), the newly proposed Southern Loloish tree would be labeled as follows.

Hani *zhixi* 哈尼支系

1. Hani *yu* 哈尼语

- Hani *fangyan* 哈尼方言
- Haoni *fangyan* 豪尼方言
- Aka *fangyan* 阿卡方言

2. Bisu *yu* 毕苏语

3. Sila *yu* 斯拉语

4. Bi-Ka *yu* 碧卡语 (currently classified by mainstream Chinese linguists as a *fangyan* 方言)

5. Jinuo *yu* 基诺语

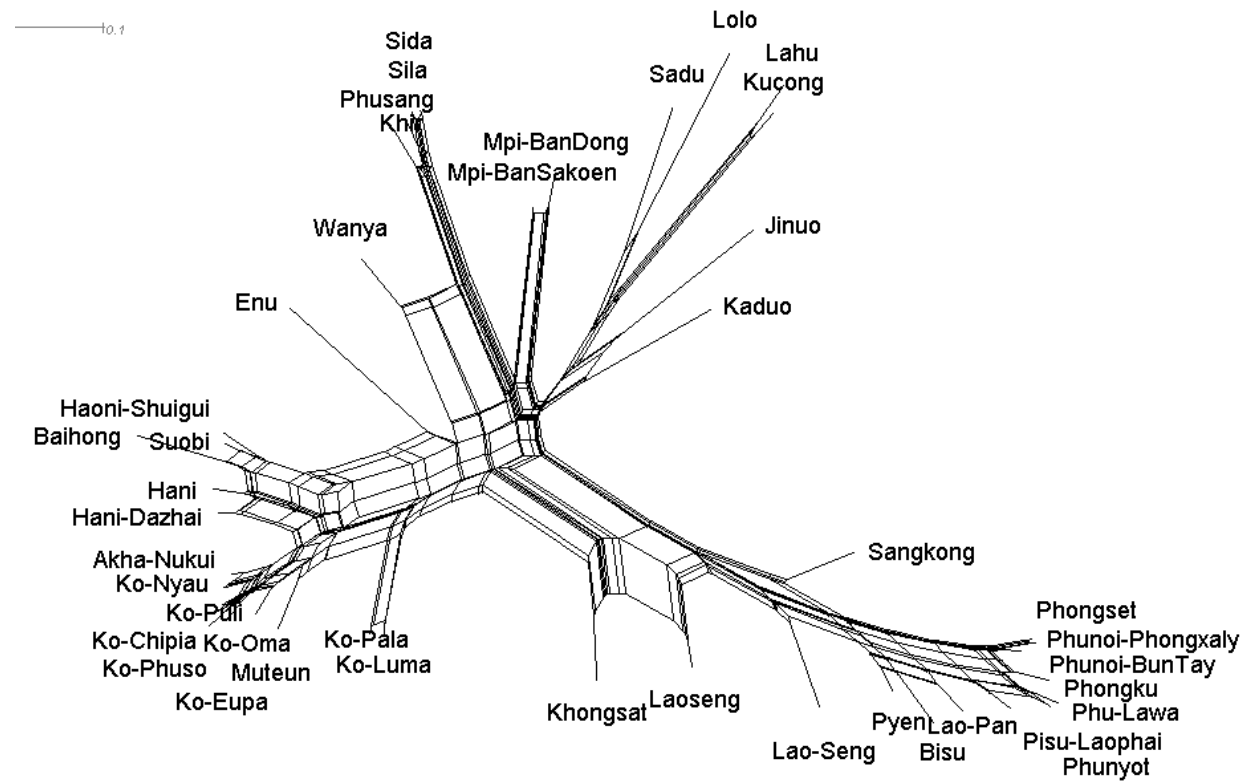


Figure 1: Network diagram of the Southern Loloish languages generated by SplitsTree 4.0

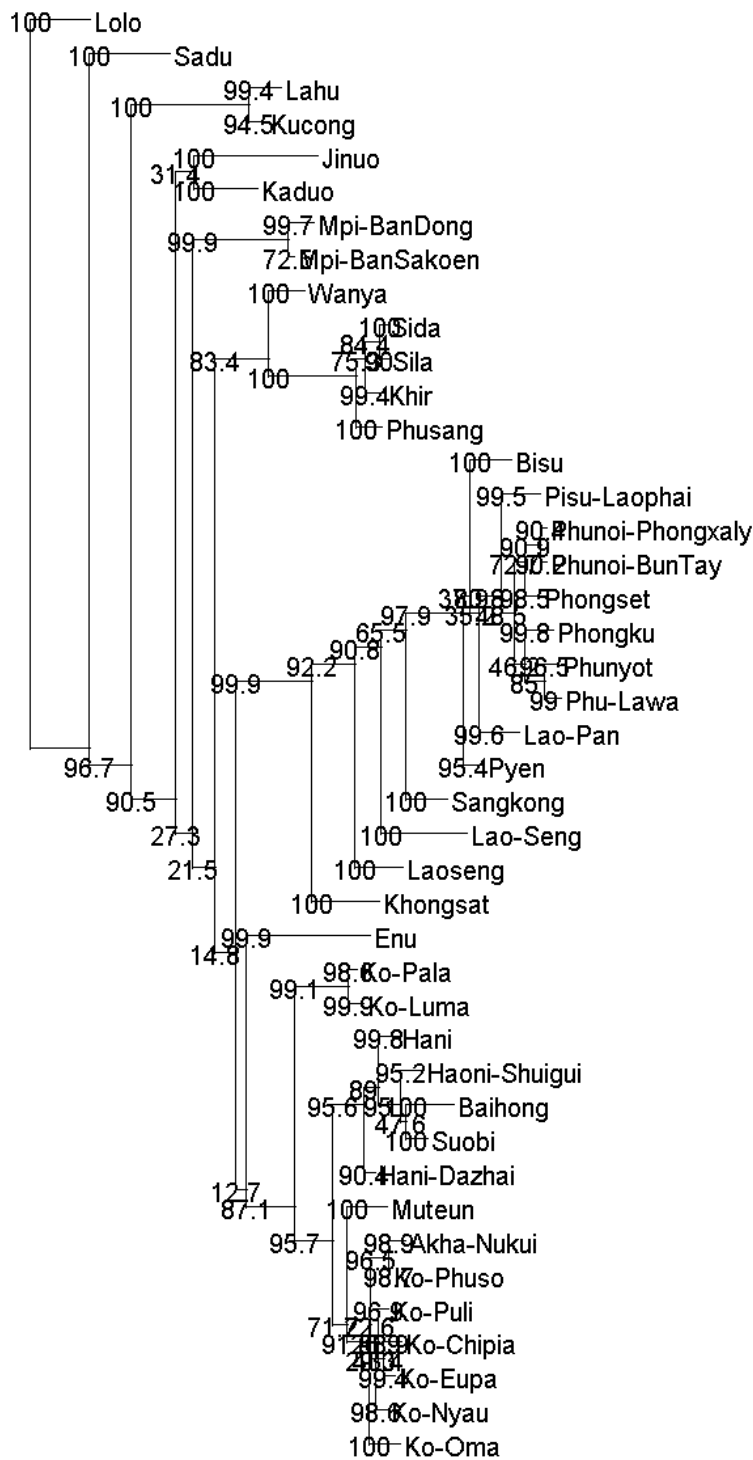


Figure 2: Full tree diagram of the Southern Loloish languages generated by SplitsTree 4.0. Confidence values over 90% (bootstrap: 1,000 times) indicate a high probability of the branch being a valid coherent group. A confidence value of 90.5% was given for Southern Loloish.

In Figure 3, Akha and Hani are shown to be separate, coherent groups within Hanoid. Pala and Luma form a single branch that is an outlier to the core Hani-Akha branch.

Muteun [mə21 tu21] of Hunapha village, Namong District, Oudomxai province, Laos is an outlier that appears to be a sister of the Akha branch. Kato (2008) considers its position to be unknown with Loloish. It is not known whether **Muda** in Xu (1991) is related.

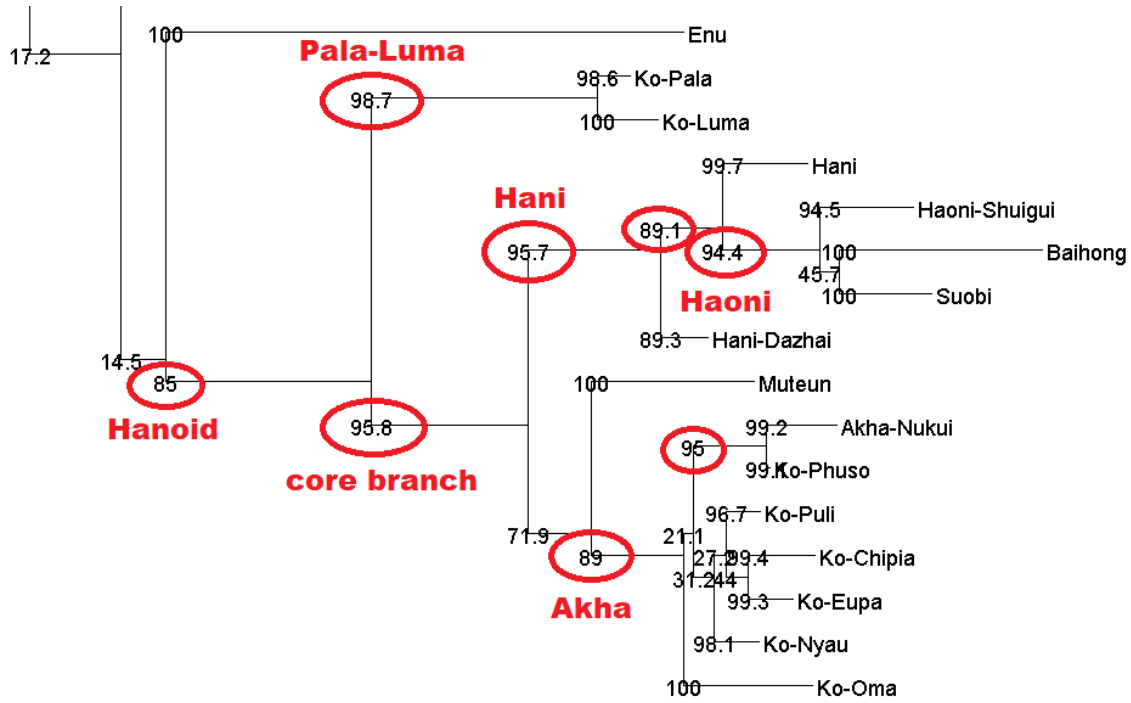


Figure 3: Tree diagram of the Hanoid languages

Khongsat (autonym: **Suma** [su55 ma33]) of Sutko village, Namom District, Oudomxai province, Laos is shown in Figure 4 as the most divergent (basal) Bisoid language. Kato (2008) considers its position to be unknown with Loloish. Laoseng and Sangkong are also placed outside the core branch.

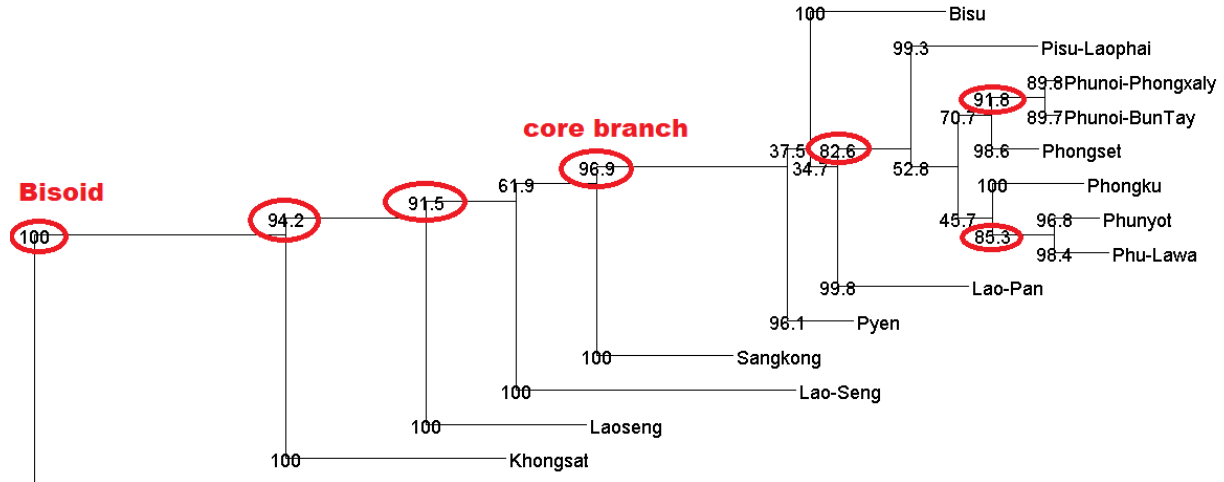


Figure 4: Tree diagram of the Bisoid languages

Figure 5 shows the newly proposed Siloid branch. Section 2 discusses Siloid in more detail.

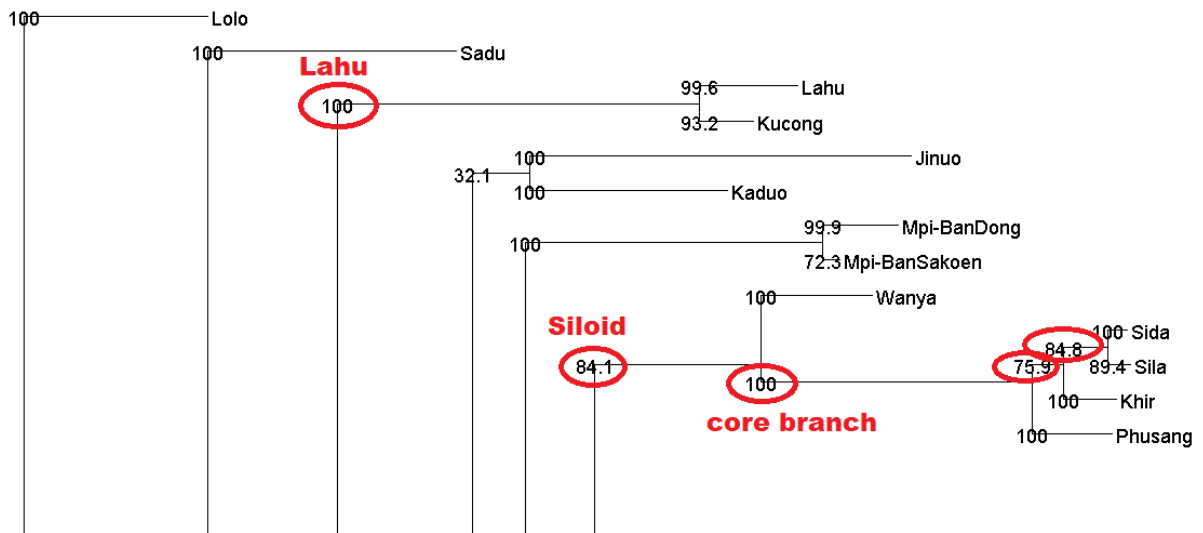


Figure 5: Tree diagram of the Siloid languages

No.	English	Chinese	1	2	3	4	5	6	7	8	9	10	11	12
2	autonym	自称	0	1	2	3	4	5	6	7	8	9	10	11
3	body hair	毛												
4	skin	皮肤												
5	bone	骨头												
6	blood	血												
7	tears	眼泪												
8	sweat	汗												
9	head	头												
10	hair	头发												
11	face	脸												
12	eyebrow	眉毛												
13	eye	眼睛												
14	ear	耳朵												
15	nos	鼻孔												

Figure 6: Spreadsheet database of Southern Loloish languages

2. Siloid: a new branch of Southern Loloish

Sila/Sida, Khir, Cosao, and Phusang form a coherent subgroup, with Wanyä as an outlier. Sila was not analyzed in Lama’s (2012) computational analysis of the Lolo-Burmese languages.

- **Phusang** [pa33 za33]: Phusangkao village, Samphan District, Phongsaly Province, Laos; Kato (2008) considers its position to be unknown with Loloish.
- **Khir** [la21 ja21]: Kang village, Nyot U District, Phongsaly Province, Laos; Kato (2008) considers its position to be unknown with Loloish.
- **Sida (Sila)** [go55 u55 a11 ma11]: Chaohoi village, Nyot U District; Phongsai village, Bun Neua District, Phongsaly Province, Laos; Kingsada (1999) labels it as an Akha language.
- **Sida** [si33 la33]: Longthang village, Nyot U District; Sida village, Luang Namtha District, Luang Namtha province, Laos; Shintani (2001) labels it as an Akha language.
- **Sila** [ko55 u21]: Namsing village, Nyot U District, Phongsaly Province, Laos; Kato (2008) labels it as an Akha language.
- **Wanyä (Muchi)** [wa11 nø11]: Ipeoching village, Bun Tay District; Phongsaly Province, Laos; Shintani (2001) labels it as an Akha language.

Data for **Phana’** (also called **Bana** or **Pana**) of northern Laos has not been included. Data for Phana’ has been collected by Nathan Badenoch (p.c.), but remains unpublished. Sila has also been documented by Jerold Edmondson (2002) and Ma (2000). Ma (2000), which is an ethnography rather than a comprehensive linguistic description of Sila, provides a word list of Sila using Vietnamese orthography.

The proposed homeland of Siloid is Phongsaly Province, Laos, as it has the most diversity. Some Sila migrated to Vietnam, while Cosao split off from Proto-Khir-Cosao and migrated over to what is now the Chinese border.

The majority of Southern Loloish linguistic diversity is in Mojiang County, China; Jiangcheng County, China; Jinping County, China; Phongsaly Province, Laos. This is the most likely region for the Southern Loloish homeland (urheimat), as shown in Figure 7.

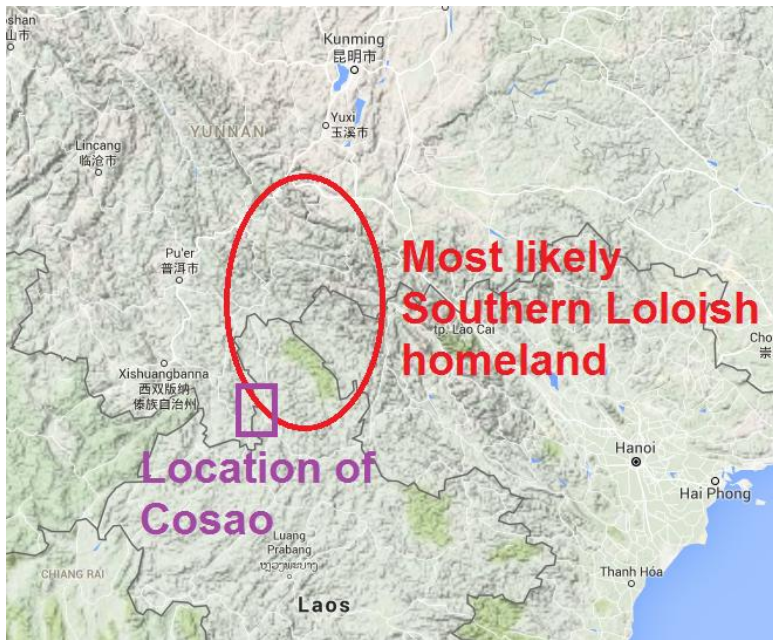


Figure 7: Locations of Cosao and the most likely Southern Loloish homeland

3. The position of Cosao within Siloid

Cosao is a Tibeto-Burman language (Southern Loloish branch) spoken in both Laos and China. It was recently discovered and documented by Bai Bibo of the Yuxi Ethnic Research Institute in Yuxi, China. The Cosao have a population of 550, with the autonym (self-designated ethnonym) *tsho55 sɔ55*.

There are 149 ethnic Cosao people living in the village of Man'gang 曼冈, Mengban Village 勐伴村, Mengban Town 勐伴镇, Mengla County, Yunnan Province, China (Bai 2015). It is the only Cosao village in China, although there are also other Cosao villages in Phongsaly Province, Laos. The Cosao are referred to by other ethnic groups as the Paijiao people (排角人)

In northern Laos, there are 400 ethnic Cosao people in 2 villages in Phongsaly Province, namely Ban Nanli 板南里 (coordinates: 21° 45'15" N, 102° 11'21" E; shown in Figure 8) and Ban Shalue 板沙略 in Boun Tay District 乌德县 (Bai 2015:2-3). Ban Nanli is the older village of the two, since Cosao residents of Ban Shalue report that their ancestors had migrated from Ban Nanli. The two villages are located about 20 kilometers apart from each other.



Figure 8: Location of Ban Nanli

Cosao is most closely related to Khir. Khir preserves some initial labial-lateral clusters (e.g., eye, horse, bee) that are rarely found in Lolo-Burmese, and crucial for Proto-Lolo-Burmese reconstruction. I have observed the following sound correspondences between Khir and Cosao.

1. Khir Cl- : Cosao Cj-
2. Khir -ŋ: Cosao -m

In both cases, Khir is more conservative and closer to Proto-Lolo-Burmese. Many Lolo-Burmese languages do not have (1) and (2). Khir and Cosao also both share the deaffrication of Proto-Loloish *ts-, dz- > s-, as well as various vowel correspondences.

Table 1 compares vocabulary among Cosao, Khir, Phusang, and Hani, and highlights the close relationship shared by Cosao and Khir. Phusang, also called Paza, is mostly related to the Cosao-Khir pair. Hani is a Southern Loloish language belonging to the Hanoi branch, not the Siloid branch.

Gloss	Cosao	Khir	Phusang	Hani
head	u ³¹ k ^h ja ³¹	u ²¹ k ^h ja ²¹	o ²¹ k ^h ε ²¹	u ²¹ tu ²¹
eye	mja ³³ su ⁵³	m ^h la ³³ su ²¹	mja ³³ dzɯ ³³	ma ³³ nu ³³
to run	ts ^h u ⁵³	ts ^h o ²¹	εε ³³	k ^h i ³³
sky	nε ³¹ k ^h u ⁵³	nε ²¹ k ^h o ²¹	o ²¹ t ^h ε ²¹	o ²¹ ɔ̃ ²¹
star	əŋ ³¹ ki ⁵⁵	u ²¹ ŋ ²¹ ki ⁵⁵	u ²¹ ki ⁵⁵	a ²¹ ku ⁵⁵
rain	i ³¹ t ^h a ⁵³	u ²¹ ŋ ²¹ t ^h ε ²¹	mo ⁵⁵	o ²¹ je ⁵⁵

stone	lo ³³ p ^h au ³³	lo ³³ p ^h ou ³³	la ³³ p ^h u ³³	xa ²¹ lu ³³
house	tso ⁵⁵	tso ⁵⁵	ja ²¹ te ^h y ⁵⁵	la ²¹ xo ⁵⁵
horse	mjom ⁵³	mluŋ ²¹	mju ²¹	a ²¹ mo ²¹
flower	a ³¹ ze ³³	a ²¹ ze ³³	a ²¹ vy ³³	a ⁵⁵ jeu ³³
tea	la ³¹ a ³³	la ²¹ a ³³	a ²¹ p ^h e ⁵⁵	la ^u 21k ^h e ⁵⁵
song	i ⁵⁵ la ³³	i ⁵⁵ la ³³	a ²¹ k ^h y ²¹	ts ^h a ^o 55
drunk	pjo ⁵³	blo ²¹	bo ³³	heu ²¹
old (age)	mɔm ³¹	muŋ ²¹	za ²¹ mu ²¹	mo ²¹
month	lɔ ³³	bo ³³ lɔ ³³	bo ³³ lɔ ³³	ba ³³ la ³³

Table 1: Comparative vocabulary of Cosao, Khir, Phusang, and Hani highlighting the close relationship between Cosao and Khir

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