

THE KORO LANGUAGE OF ARUNACHAL PRADESH: WORDLIST AND ETYMOLOGICAL ANALYSIS

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[Circulation Draft]

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ACRONYMS AND CONVENTIONS

#	quasi-reconstruction
*	regular reconstruction
AD	Anno Domini
C	consonant
C ₁	first consonant
IPA	International Phonetic Association
N	nasal

1. Introduction

The Koro language, spoken in some thirteen villages west of Seppa, in East Kameng District, Arunachal Pradesh, northeast India, has been the subject of considerable, but quite unjustified, media brouhaha. Arunachal Pradesh has a very full complement of unreported languages, some of which have never been the subject of any published reference¹. The Koro, however, have a curious relationship with the neighbouring Hruso. The two cultures are a mirror of one another, despite the fact that the languages have virtually nothing in common lexically. Almost all lexicographic items can be mapped to one another. The same is true for the Miji people, west of the Hruso, although the Miji are more culturally distinct. This point is made clearly in the comparative study of Grewal (1997). Both Hruso and Koro are locally classified using the term ‘Aka’, commonly found in earlier literature. The Koro appear in earlier publications as the ‘Miri-Aka’ which may have been responsible for some of the confusion or misleading statements in media reports.

A preliminary survey visit was made to the Koro area in December 2011 to expand the lexical data available and improve the quality of existing transcriptions. Interviews were conducted in Yangtse, one of the accessible Koro settlements, and a wordlist and sample sentences were recorded through the kind help of Somo Yamde, the village headman and the pastor and other villagers who assisted with obscure words (Photo 1). The interviews were conducted directly in English, not via Hindi, which has been shown to result in misleading responses and normalised phonology. According to Somo Yamde, the villages where Koro is spoken are;

Photo 1. Koro informants group photo



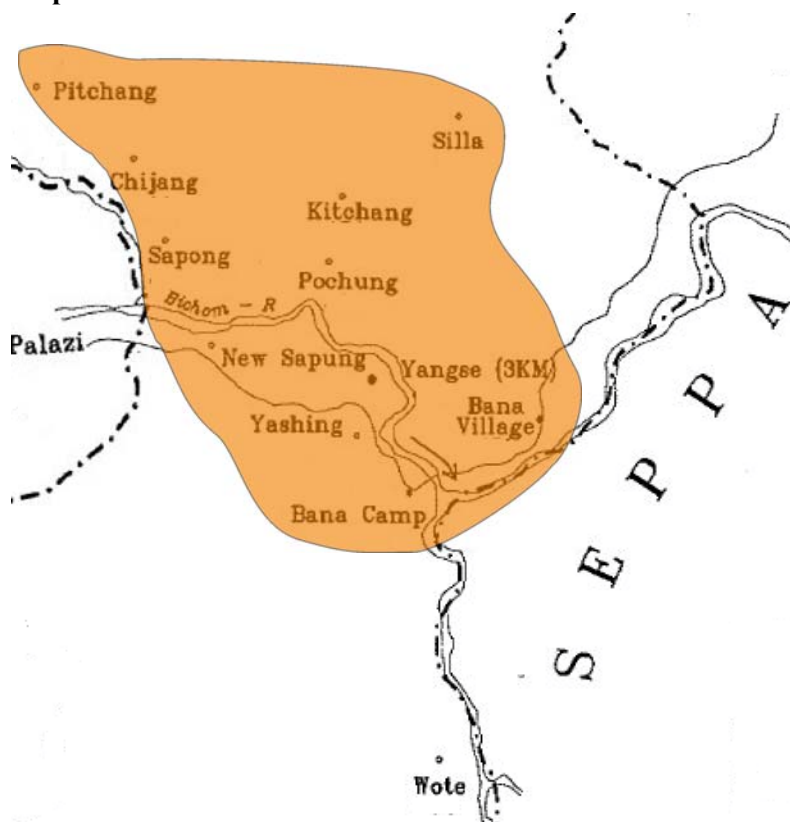
As heard	Map
Dzédzùlálè	
Kádžùŋ	
Pítǰǎŋ	Pitchang
Dá nǒ	
Sùpónǰ	Sapong
ʃǐdǰǎŋ	Chijang
Yámè	
Pùtǰǎŋ	Pochung
Yàŋtsě	Yangse
Kàviǎ	
Bana Camp	Bana Camp
New Suponǰ	New Sapung
ʃe Kilo	

These names were compared with the administrative maps produced to accompany the census of 2001 and the majority of villages can be identified. Some of those not marked may be only hamlets. The Koro also have a small diaspora in Seppa, which is broadly a Nyishi town. Indeed, there are Nyishi in the Koro settlements and many Koro speak Nyishi as a second language. It is hard to estimate their population but it is probably around 2-3000 speakers. Koro is a living language and there is no evidence that it is in retreat.

¹ To give an example, three languages which were previously unknown were documented within a single field trip in November/December 2011.

Despite the proximity to Nyishi, there are very few Nyishi loans in the wordlist. Map 1 shows the main settlements identified and the area where Koro is spoken;

Map 1. Koro settlements



References to the Koro go back to Hesselmeier (1868) and they rate a mention in MacGregor (1884) and Kennedy (1914). The first substantial published dataset is in Grewal (1997: 103 ff.). The transcription is not what could be wished and there is more analysis than actual data presented. Nonetheless, there is a useful grammar sketch and Koro is compared to Hruso and Miji. Abraham *et al.* (2005) include Koro in their survey of the languages of Western Arunachal Pradesh, although the lexical data is hard to extract. Regrettably also, they used a wordlist which typically incorporates numerous loanwords (e.g. ‘cauliflower’). Anderson (2010) is a grammar sketch with some speculations on Koro etymologies. Post & Blench (2011) argued in an unpublished conference handout that Koro should be subgrouped with Milang, a language significantly further east and previously considered somewhat aberrant Tani. This group they christened ‘Siangic’, after the major river running through the region. If their hypothesis is correct, this would constitute a major re-alignment of the regional language picture. They moreover claimed Siangic is not part of Sino-Tibetan but an isolate phylum. Modi (2013) has argued that for a link between Digarish (i.e. the Idu-Tawra languages) and Milang. Anderson (2014) strongly rejects both Siangic and the disaffiliation with Sino-Tibetan although the argument is not based on disputing the etymologies proposed in Post & Blench (2011).

Koro has been the source of much unfounded publicity concerning a ‘hidden’ language, which has been fuelled by the American television and media enterprise, National Geographic². As suggested above, Koro has hardly been hidden; indeed, as the frontispiece to this paper shows, they have done their best to publicise their culture and language through music videos. Their cultural festivals are widely advertised (Photo 2). This type of publicity is regrettably typical of the sort of hype required to promote documentary linguistics, but finally is of no value either to the Koro or to the linguistic community. As perhaps the photo indicates, the situation of the Koro is far from a remote Amazonian tribe making first contact with the outside world.

² See <http://news.nationalgeographic.com.au/news/2010/10/101005-lost-language-india-science/>

Photo 2. Banner advertising cultural festival

All this said, Koro is an extremely perplexing language which shows remarkably few similarities with any neighbouring languages. Despite their close cultural relations with the Hruso, the language of the Koro is very different, both phonologically and lexically. The analysed wordlist is a preliminary attempt to understand its affiliations. However, it is clear we will need a great deal more primary data in order to clarify its relationships and if it is as isolated as at first appears then the issue may never be finally resolved.

2. Phonology

Koro consonants are shown in Table 1, together with their labialised and palatalised counterparts;

Table 1. Koro consonants

	Bilabial		Labial-dental		Alveolar		Palato-alveolar		Palatal	Velar	Glottal	
Plosive	p	b			t	d				k	g	ʔ
Fricative			f	v	s	z	ʃ					h hʲ
Affricate							tʃ	dʒ				
Nasal	m				n				ɲ	ŋ		
Flapped					r							
Lateral					l							
Approximants	w								j			

Koro has a distinctive rolled /r/ represented here as ‘rr’. It appears to be in complementary distribution with the flap /r/ which is heard word-medially, whereas the trill is word initial or word-final.

lungs rràlsónj
heart rrà dájá
answer ru tarr

An aspirated p^h [represented φ] appears regularly in the transcriptions of Anderson (2010) but not in my recordings. Either this represents variation between speakers or his informant was influenced by Hindi phonology.

The most difficult problem in Koro transcription is the treatment of epenthetic central vowels. Typical Koro syllabic structures are CV(C) and V. However, some words seem to have deleted vowels between adjoining consonants. For example;

woman msn

Anderson (2010) always transcribes these words with an intervening central vowel, thus *msn* would be *misin*. However, it is more likely that Koro is being influenced by its neighbour, Hruso, where sequences of consonants with no vowels (up to six), are common. The vowels of Koro are shown in Table 2;

Table 2. Koro vowels

Vowels	Front	Central	Back
Close	i [ii i]		u [uu ũ]
Close-Mid	e [ee ĕ]	ə	
Open-Mid	ɛ [ɛɛ ĕ]		ɔ [ɔɔ ɔ̃]
Open		a [aa ă]	

Long vowels seem to be strongly associated with the rising tone, and they are provisionally treated as phonetic, determined by the change in tonal melody. Nasalised vowels are never contrastive with syllables with a nasal coda, typically /ŋ/ and it is likely these are not phonemically distinct.

Koro is marginally tonal and tones are marked as heard. However, it is likely there are just two contrastive word melodies, Low and High. Even these may be predictable, although a larger sample of lexemes will be needed to be certain of this.

3. Datasheets

The datasheets are organised semantically by categories commonly used in language survey in Arunachal Pradesh. This is less than ideal, but facilitates comparison with other neighbouring languages whose lexical data is set out in this way. The first column following the gloss is always the author's own fieldwork. The primary entry in the second column is from Abraham *et al.* (2005). Additional entries are from Anderson (2010) but these are only present when they show significant differences with the other entries. These are always followed by the annotation (GA). I have noted what appear to be elicitation errors in the comment column. The major source for etymological comparison is STEDT, and I have not marked individual data sources. However, Hruso, Miji and Mey cluster languages are from my own data collections.

Transcriptions

My own data is in IPA-like transcription except for the palatal /j/ which is written 'y'. I have converted the orthographic conventions in the other sources as follows;

ɟ	j
tʃ	c, ch
ŋ	ng
ɲ	ny
ɸ	p ^h

Body parts

Gloss	RMB	Others	Comment
ankle	ɲibì ɲirà(m)		
arm	lârbǒ		
back I		puro, polo (GA)	This is probably the word for 'shoulder' (see below)
back II		tǒ[n]ɟǒ (GA)	
beard	ɟāmí		cf. Milang <i>kʷaŋma</i> . Possibly compare Kman <i>ɛa³¹ mol³⁵</i> , although these terms are clearly related to Kuki-Chin e.g. <i>kha mul</i> .

Gloss	RMB	Others	Comment
blood	ivĩ	evi	Not CTB but cf. P-Tani *vii.
body	gǎǎ	ga	Not CTB. but ? cf. Puroik <i>yaʔ</i> ³³
bone	jirǎ	nira	cf. ? Miji <i>mrɪaŋ</i> . Not CTB, though many branches have ru? ~ rus for ‘bone’
breast	apu		cf. Hruso <i>apʰu</i> . V- prefix for body parts, plus a Tibeto-Burman root for ‘breast, milk’ etc. discussed by Matisoff (2008: 104 ff.) under *pa and *m-pup.
buttocks	tǎ vǒ	kiꞤ (GA)	Not CTB.
cheek	ǎnǎ mǒpù	ǎnǎmǎpu	
chest	tǎŋǎpé		
chin	kòdʒirǎ	ŋʊkpra, dʒuplǎ (GA)	
ear	rǎǎ	ra	cf. Milang <i>ra.nu</i> . P-Tani * <i>na.ruŋ</i> (? metathesis). *r.na is widely reconstructed for CTB.
elbow		larbuŋ	‘hand + x’. cf. Idu <i>lárù</i> though Idu for ‘hand’ does not contain the <i>la</i> root
eye	jirám	niram	cf. ‘tail’. The -ram element has no external cognates but cf. Hruso <i>əni</i> , Dirang Monpa <i>rniŋ</i> , some Tani <i>ni(k)</i>
face	ǎnǎ	ǎnia	cf. Tawra <i>ǎnǎǎ</i>
faeces ³		ikʳa (GA)	cf. Idu <i>kʰə</i> ,
fat		ufu	not CTB but proto-Tani *-fu ‘fat, grease’
finger		larŋe	‘hand + x’
flesh	nì dʒǎ		cf. Bangru <i>màdʒó?</i> ,
foot	bì pǎy	bipai (GA)	‘leg + x’.
forearm	lǎrbó là		‘arm + hand’
forehead	kǎdǎràpǎ		
hair	dʒù mí	dʒumi	<i>dʒù</i> is ‘head’ so <i>mi</i> must be the general term for ‘hair’. Not CTB but P-Tani *mit
hand	là	la	cf. CTB *g.lak.
head	dʒù prá	dʒupara	No external Tibeto-Burman cognates
heart	rrǎ dǎŋǎ	raludǎŋa, mbuŋǐ (GA)	
jaw		phiyʔay (GA)	
knee	bì.ŋgǒ		
leg	jì.bì		The core lexeme is -bi, cf. ‘foot’ above. Not CTB. cf. P-Tani *byan ‘thigh’. Some Naga, e.g. Zeme <i>pi</i> , Tangkhul <i>pʰi</i> .
lip	ŋǎpù jípi	talippi (GA)	
liver	ŋùfě		No external Tibeto-Burman cognates
lungs	rrǎlsón		No external Tibeto-Burman cognates
marrow	vǒgní		No external Tibeto-Burman cognates
mouth	ŋǎpú	sapu	cf. Meyor <i>ŋipay</i> , but no general Tibeto-Burman cognates
mucus		mele	No external Tibeto-Burman cognates
nail	lǎrté	[lsr pʰe]	‘hand + x’
neck	lǎrá	lara	Not CTB but some Western Tani, e.g. Apatani <i>lǎ.gu</i> ,
nose	kěpě	kepe	No external Tibeto-Burman cognates
palm		la pai	‘hand + x’
penis		mlakʰ (GA)	cf. P-Tani *mrak, Idu <i>àlùkù</i> , Miji <i>mǎlò?</i> , Hruso <i>uʌo</i> .

³ dung, excrement, manure, shit, stool

Gloss	RMB	Others	Comment
pus		iniyago	
saliva	tàlé ^[2]		Similar to ‘tongue’. Elicitation error?
semen		mlaksi	‘water of penis’
shoulder	pòlǒ		Not CTB but ? cf. Kman ʔp ‘ʔʔ’
skin	nìpí	nipi	Not CTB but Tani languages often have <i>pin</i>
skull		niru (GA)	Not clearly CTB but <i>lu</i> is a common element in words for ‘skull’ in Naga and even modern Chinese <i>lú</i> , 顱
stomach, belly	gày ʃǒ	gai, ŋgaɲifey (GA)	No external Tibeto-Burman cognates
sweat		eve, eblǒ (GA)	No external Tibeto-Burman cognates
tear	nǐʃi		cf. Hruso <i>ənisə</i> but possibly a compound ‘body + water’
testicle		tampe	cf. some Eastern Tani e.g. Damu <i>təp pu</i> ,
thigh	tàbò bàlá		No external Tibeto-Burman cognates
throat	ʃǒmbòrǒgǒ		No external Tibeto-Burman cognates
toe	bàrké		‘leg + x’
tongue	sàlé [?]	tale, taaley (GA)	CTB has widespread <i>C.ley</i> roots e.g. Dirang <i>le</i> .
tooth	fi	p ^h i, ʃi (GA)	Not CTB. cf. P-W Tani *fi.
urine	tùsǔŋ		
vagina		ⁿ ʃɛk ^h	No external Tibeto-Burman cognates
waist	kǒ ʃùŋ		cf. Milang pak-juŋ

Persons, family

Gloss	Koro	Other	Comment
boy		moro, male (GA)	cf. Milang yaa.ma
brother	àmá		
elder brother	àmà súŋ	ama	cf. Hruso <i>àmà</i> ‘father’s sister’
younger brother	nè súŋ	ne	cf. Hruso <i>nu</i> ,
child	ŋwà àlé		No external Tibeto-Burman cognates
daughter	nìmin	mimi uŋa, mimiŋa (GA)	
elder sister	nìni ŋwà àfǒ	ofo, ofo (GA)	
younger sister	nìni ŋwà né		
father	àbò	abo	Widespread regional root in various language phyla
friend	àdʒiŋ	adʒiŋ	
girl		mimiŋa	cf. Hruso <i>mimsa</i> ,
grandfather	àbò mòr dʒí		
grandmother	àyè msn	aye misiŋ	
husband, male	mòrò	raʃi	
man	mùr	moro	cf. Idu <i>imu</i> , Tawra <i>me</i>
mother		aye	cf. Hruso <i>an</i> , Bangru <i>ane</i> , Miji <i>ani</i> .
neighbour	dʒòn ʃù dʒògǎ		
person	kèpé	muru	cf. ‘man’
son, grandson	ŋwá	mora uŋa, omiro (GA)	

Koro wordlist Roger Blench. Main text

Gloss	Koro	Other	Comment
village	kòŋdò		
wife	ùí	wi	
woman	msn	mimi, misiŋ (GA)	The mi- element for ‘female’ is widespread in regional languages, but <i>msn</i> has no obvious cognates.
younger brother	nesuŋ		
younger sister	jimi wa	ne	cf. Hruso (ə)nim,

Houses and architecture

Gloss	RMB	Others	Comment
cattle yard		delakoŋ	
door		dʒilakō (GA)	
floor	kaŋfa ipi		
granary		ŋʌlu	possibly cf. Hruso ɲɛ tɛə
hearth	mepũ		
house	nəŋ	ɲɛ, ɲin (GA)	cf. Hruso ɲɛ,
ladder to ceiling		ibi	cf. Milang <i>da.b'a</i> , possibly also P-Tani * <i>la.braŋ</i>
roof	muŋlɔ	gartoŋ, gartō (GA)	
veranda	odʒō		
wall	pe dō	piton	
window		kʰirki	

Household items

basket		ŋĩpla (GA)	
bed, wooden frame	saŋgǎ		
blanket		gombolo	
broom		dʒaru	
candle		boŋfua	
cooking pot	rápũ		
hammer		martul	< Hinid orig. French <i>marteau</i>
needle		bedʒi	
paper		kako	cf. Hruso <i>kakɔsə</i> but presumably a loan from a LWC
pillow		dʒukire	cf. Hruso <i>dʒəkʷi</i> ,
spoon		pili	
thread		iraŋdi	
trivet	sɔrɔmbi		

Dress

bag			
bead		taflō, taɸō (GA)	
clothing, cloth		gile (kəle), gele (GA)	cf. Hruso gʷɛ,
ring		lale	

Tools etc.	Koro	Other	Comment
arrow		pa	cf. Milang <i>a.ppa</i> , Idu <i>īpūtà</i> , P-Tani <i>*puk</i> ,
arrow flight		palo (GA)	
axe		rakpa	
bow		le	
dao, knife		kaple, kasa (GA)	probably <i>ka</i> is the root and the suffixes mark size
net		sā ~ sō	cf. Tawra <i>fa</i> ,
seed, seedling		neram	
sheath		kasariso (GA)	
spear		neŋkroŋ	
stick		laba	
whetstone		kasa pugō (GA)	

Agriculture

Gloss	Koro	Others	Comment
field		pu	cf. Milang <i>a.pu</i> ,
Crops			
banana	gerdzi		Not CTB.
bean	lāplāplā		as Hruso <i>lāpràprà</i> , but < Assamese
brinjal, eggplant	kādù	kadu	
cauliflower		kobi	< Hindi
cassava			
cucumber	dili		
chili pepper		adə	as Hruso
garlic	sə́kóm	losan	losan is Hindi
ginger	ĩŋĩm		
gourd			
mustard greens		lipadō	
cultivated leaves	nano fnuŋlɔ	? unclear	
maize		adʒaki, asanki (GA)	
millet			
onion	èlè	pias	
orange	nàréŋ		cf. Hruso <i>narin</i> . prob. < Hindi via Portuguese
potato		lasaniki	
pumpkin	dʒă		
paddy	ki	k ^{hi}	Not CTB. cf. Idu <i>kə</i>
rice, paddy	kì rāká	kərak ^{hə}	
rice, cooked	mām	mam	no CTB form. cf. Kman <i>maŋ</i> , Puroik <i>amaŋ</i>
soya bean	èdʒè		
sugar-cane		ra	
sweet potato	àlù lá		< Hindi ‘potato’
coconut		narikol	
banana		gerdzi	
jackfruit		kotal	
taro	lam		Not CTB.
wheat		pu	cf. Hruso p ^{hũ}

Gloss	Koro	Others	Comment
Foods			
egg		ʃuʃi	this must be 'egg of chicken'
fish		ŋola	
meat		su	the same word as 'mithun'
milk		apu	also 'mother'
oil		tele	
salt		pro, plo (GA)	cf. P-Tani * <i>lo</i> , Idu <i>prǎ</i> .
Stimulants			
betel		gove	
beer, wine		sai, sey (GA)	cf. Hruso <i>ṣə</i> ,
lime		ʃun	
Disease			
Gloss	Koro	Comment	
medicine	dawa		
Natural world			
Gloss	RMB	Other sources	Comment
ashes		me puruku	
cave			
cloud	mgvǎ	mukba, mugba (GA)	cf. P-Tani * <i>muk</i> , Hruso <i>mum</i> ,
dust		mepumolo	
fire	mila	mila	cf. PTB * <i>mey</i> , Milang <i>a.mi</i> , Dirang Monpa <i>mi</i> , Hruso <i>mi</i> , Miji <i>may</i> .
gold		ai	
ground, soil		k ^h u, kuʔumiŋku (GA)	
ice	saka		
lake		sidōʔdokō	
lightening		misimele	
moon, month	ala	ala	cf. CTB * <i>s.la</i> , Idu <i>ela</i> , Tawra <i>halo</i> ,
mountain, hill	vǎ	goŋ, ŋgō (GA)	
mud		k ^h oʃǎla	
night, darkness			
plain	yǎ		
rain	mwíyò	namu, muyu (GA)	
rainbow		sarmadʒa	
river	ʃi	ʃi, si (GA)	
sand		bupi	
sky	mnkpe	mup ^h e	

Gloss	RMB	Other sources	Comment
smoke, steam		məkə	
snow	teje		Possibly cf. Hruso <i>teɣnə</i> ,
star	dobre	dure, dogre (GA)	not CBT but cf. Idu <i>andikru</i>
stone, rock	vuvu	ubu	No external Tibeto-Burman cognates
sun	mini	mine, mene (GA)	cf. CTB <i>*nəy</i> , Mey <i>nini</i> , Idu <i>ɣnī</i> ,
thunder		mugmadʒa	
water	ɣĩ	si (GA)	cf. Milang <i>a.si</i> ,
wind, air		mile	

Communications

Gloss	Koro	Other
road	radʒa	radʒa
boat		holoŋ
village		koŋʔo

Plant parts

Gloss	Koro	Other	Comment
bamboo	fũ	fu, ɸu (GA)	cf. Milang <i>fu</i> . Also <i>puku</i> , dried bamboo
bark	ɲikur		
branch	taɣĩ	taɣĩ	
cane	ɣapě		cf. Hruso <i>fa</i> ,
creeper, vine	mele		
flower		nep ^h u, ɲipi (GA)	
fruit		nesi	
grass	nanuŋ		
leaf	nino	nino	Not CTB but possibly compare Idu <i>ná</i> , also P-Tani <i>*nə</i> .
pip/stone			
root	ɲira	neraŋ	
thorn		sona	
tree	la	lā	No external Tibeto-Burman cognates

Animal parts

Gloss	Koro	Others	Comment
horn	ɲiru	nuru	cf. Idu <i>rù</i> , Milang <i>a.rəə</i> , P-Tani <i>*rəŋ</i>
tail	ɲiram	niraŋ	cf. 'eye'
beak	ɲer kō		
fur	ɲimi		
feather	ɲimi		

Animals

Gloss	Koro	Others	Comment
Domestic			
animal	sù sàtí		‘mithun + cow’
horse	sòvrá [?]		
mare	sòvrá [?]		
	píblí		
cow	sátì	sati	
mithun	su		Not CTB but a regional culture word. cf. Hruso <i>fu</i> , Milang <i>a.su</i> , also P-Tani <i>*a.so</i> , Hruso <i>fu</i> Miji <i>fu</i> , Idu <i>sà</i> .
yak	sábá		
	sùbù		
buffalo	mì dèk	midek	
pig	lèlè	lele	Not CTB, but cf. Idu <i>ili</i> , Miji <i>lii</i>
sheep	pláí		
goat	sèblè	sobe, soble (GA)	
dog	èklè	akle	Many dog names have a -k- element but no clear cognates
cat	àsà	aʃa, āsa (GA)	cf. Hruso <i>aʃa</i> . < LWC?
hen	tùlè sú	ʃupɔʒa, ʃole (GA)	cf. Milang a.ʃu
cock	tùlè		
	sùbìŋ sú		
duck	àà	hās	
Wild animals			
Mammals			
bear		sumo	
deer		sui	
elephant		hati	cf. Miji <i>atɛĩ</i> but <Hindi
monkey		lāsu	
rat		kam	
tiger		ʃaru	Not CTB. ? cf. Hruso <i>ɛʃə</i> ,
Birds			
bird	pùlé	pule, pole (GA)	< French <i>poulet</i> . cf. Milang <i>ta.pʷu</i> , Idu <i>prā</i> ,
Insects			
insect		kapekapu, kaape (GA)	
ant		pafu	cf. Idu <i>pāsī</i> ,
bee, honey		aɔʒa	cf. Hruso <i>məɔʒə du</i> ,
cockroach		sasugula	
housefly		lagalu, papagula (GA)	
louse		flā (GA)	
mosquito		tatu	

spider	murpalu	? < LWC
wasp	adɟa nile (GA)	

Reptiles etc.

snake	gabu, gibu (GA)	cf. Idu <i>tàbù</i> ,
frog I	tapəguru	
gecko	ɲeaiyo	
turtle	rakap	

name	niraŋ	Not CTB.
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Pronouns

Gloss	Koro		Comment
I, me	ně	ne (GA)	
you sg.	nuŋ	nu (GA)	cf. P-Tani *ŋo, Idu nú
he, she, it	li	ba (GA)	
we	eme		
you pl.		nume (GA)	
they	bame		

Demonstratives

this	tife
these	
that	life
those	abadɟa

Interrogatives

How many?	hargina
What?	higi
Who?	aɟuna

Quantity

some	
a little, few	kʰige
many, much	abadɟa
all	neme

Numerals

Gloss	Koro	GA	Comment
one	eɟě	eɟe	Possibly cf. some Bodish e.g. Memba <i>fik</i> , in which possibly CTB *g-t(y)ik.
two	kéné	kine	-ne element is widespread in TB
three	kală	kala	No external Tibeto-Burman cognates
four	koplě	kople	cf. Miji <i>bli</i> , Idu <i>kàprà</i> , P-Tani * <i>pri</i> , then possibly CTB * <i>b.ley</i>
five	plě	plě	No external Tibeto-Burman cognates but presumably connected

Gloss	Koro	GA	Comment
			with 'four'
six	sk ^{hi}	sufi	No external Tibeto-Burman cognates
seven	rõŋ	rõ	No external Tibeto-Burman cognates
eight	ràlá	ra	Not Tibeto-Burman, but Milang <i>ra.yəŋ</i> , Bugun <i>m̩la</i> and Puroik <i>la</i>
nine	gèyé	gīye	cf. CTB * <i>d.gew</i>
ten	fàlà	fāla	
eleven	fàlà yèlè	fālaleŋe	
	èŋě		
twelve	fàlà lè kèné	fālalikme	
twenty	nityá	niflā	
		(GA)	
thirty	kàlà tyá		
forty	kòplè sǎ		
fifty	plè sǎ		
sixty	sk ^{hi} flá		
seventy	rò flá		
eighty	ràlà flá		
ninety	gèyè flá		
hundred	pàlà		
two	pàlà kèné		
hundred			
thousand	fàlà fǎlá		
first		senma	
second		yijma	
third		kirdzima	

Adjectives

Gloss	RMB	Others	Comment
bad	katiŋ	kafuŋ	GA also gives <i>kaplaŋa</i> i.e. 'not good'
big	ŋǒ	ŋon	
bitter		aka	cf. Milang <i>kaa</i> , P-Tani * <i>kaa</i> , Tawra <i>ka</i> , Kman <i>khamin</i>
broken in two		mapulaŋ	
cold	eŋě	edzay	
deep		amā	
different		eŋeŋe	
dry	ogǒ	onjo	
empty		kuŋa	
far		adza	
fast		etere	
fat		elan, ŋǒ (GA)	noun/adj not specified in sources
flat	yǎ		
full (basket)		bra	cf. Kman <i>bru</i>
good	kapla	kapla	cf. Kman <i>pra</i>
heavy	omǒ	ūmo	
hot	upum	ukuŋ, [u]ku (GA)	
hungry		sama	
left		pakai	
light in weight	usǎ	usa	
long	gelen	galan	

Koro wordlist Roger Blench. Main text

narrow		radʒa	
near		ele	
new		niŋoŋ	
old (thing)		ʃalaŋ	
right (side)		idʒa	cf. Hruso tsɬə
right, correct			
ripe		iŋi	
rotten		ala	
rough	orɔ̃		
same		dʒaredʒa	
shallow		amaŋa	
sharp		uru-	
short	ʃɛntɔ	ʃoŋ	A. see big, probably elicitation error
slow		eseese	
small	uŋǎ	uŋa	
smooth	elē		
sour		ulaŋa	
spicy		ukuŋ	
sweet		ulaŋ	
thick	ŋǎ		
thin, lean		uŋa	
thirsty		rulugo	
wet	omɔ̃	ala	

Colours

Gloss	Koro	Others	Comment
black	máá	ma	cf. Kman <i>ma</i> ,
brown	aʃǎ		
green, blue	yaʃa	yeʃa, yǎʃa (GA)	cf. Milang <i>yə.ʃaŋ</i> ,
red	láá	lǎ, rǎ	
white	laplɔ̃	laproŋ	
yellow	dənsɔ̃	dunʃoŋ, damsɔ̃ (GA)	

Verbs

Gloss	Koro	Others	Comment
abandon, leave		pakay- (GA)	
answer	ru		
	tarr		
ask for	pǎlǎ		
bathe	afa	gadu	
	aʃǎ		
bite	ʃiŋ	ʃi	
boil		puk ^h u	
burn		mə	
buy		bəbə	
chew	ʃiŋ		
come	yǐŋ	taya	
cook	ʃǎ	ʃaŋ	
cut		ʃu, pi- (GA)	cf. Milang <i>pi</i>
dance		mopaʃi	

Koro wordlist Roger Blench. Main text

Gloss	Koro	Others	Comment
die	ʃiŋ	ʔoʔma	cf. P-Tani *si
do		re	
dream		niramsi	
drink, smoke	ʃǎ	ʃa	cf. Milang <i>ʃaŋ</i> , P-Tani, Tawra <i>tiŋ</i>
eat	tǔ	to	Not CTB, but widespread in this area. cf. Milang <i>tu</i> , Tani *do. Also Miji <i>tsu^h</i> , Bugun <i>ʃ^ha</i> etc. Perhaps also Kman <i>to</i> ‘drink’
enter		yim	possibly Hruso <i>dʒimi wɛ</i>
fly		ma	
follow			
forget		ʃapoŋa	
give		ra, rǎ (GA)	cf. Milang <i>ram</i> .
go, go away	yǎ	ii,ĩ (GA)	
hate		hǒʃĩ	
have		ko	cf. Milang <i>ʃu</i>
hear		ʃi	
jump		ma-	
keep inside bag			
keep			
kick		gadʒaŋ	
kill	liŋ	li	
know		p ^h u	cf. Milang <i>hu</i>
laugh		ŋo	
lie, tell		mola	cf. Hruso <i>mləú</i> ,
lie down			
lift		dʒoʃĩ	
love		sulo	
milk		apu n.	
play		ŋosa	
pull		wa	
punish			
push		uru	
rest		dʒoaga	
see		gədi, (GA)	gide
seek, search, look			
for			
sell		koy	
send			
sew		gile p ^h e	
sing		ruberu	
sit down		dʒu	
slap			
sleep	gǔ	gu	
speak		ru	
spit			
stand up		da	
steal		bra	
swim		sibramaŋ	
take		bu, bole (GA), gi- (GA)	
tell		pusu-	
throw		ka	
tie		p ^h o	

Koro wordlist Roger Blench. Main text

Gloss	Koro	Others	Comment
wait		dʒopo	
wake up	katə		
walk		i	
want			
wash s.t.		sələ	
watch over			
weave		gile p ^h oŋ	
wear			
weep, cry		dʒo	
whistle			
wipe			
work		re	

Adverbs

Gloss	Koro	Koro others	Comment
Place			
here			
there			
where		hagona	
above, on top		utoŋpa	
under, below		keka	
Directions			
North		dʒontike	
South		repelare	
West		lare	
East		mɪŋpa (GA)	
Time			
before			check
dawn, sunrise			
day		mipe, mene (GA)	cf. Milang <i>a.nə</i>
day after tomorrow			
day before yesterday			
evening		maraidzimi	
month [=moon]		ala	
morning		maŋpa	
next year			
night		mepa	
noon, mid-day		mənɪk ʃi	
today		sepe, sene (GA)	
tomorrow		saŋma, siŋma (GA)	
week		meneroŋ	
when		naɖʒuna	
year		maya	
yesterday		ban	

Exclamations

Gloss	Koro	Comment
No!	uma, ŋă[?] (GA)	
Yes!	eʔe (GA)	

4. Analysis**4.1 General**

Once borrowings from major regional languages and doubtful elicitations are eliminated there are about three hundred items overall. The etymological analysis of this wordlist suggests the following components in the Koro lexicon (Table 3).

Table 3. Etymological sources of the Koro lexicon

Source	Estimate of correspondences
Established PTB roots	Few and often require special pleading
Milang	About twenty good correspondences
Tani	Very few direct loans from Nyishi, but about fifteen correspondences with proto-Tani or its mesolects
Idu-Tawrã	About twenty good correspondences
Miji	A few borrowings
Hruso	A few borrowings
Unidentified	Remainder (?50%)

4.2 Is Koro Tibeto-Burman?

Resolving the Tibeto-Burman affiliation of Koro is far from easy due to the problematic nature of the reconstructed forms with which it can be compared. Over the twentieth century numerous scholars have made proposals for PTB proto-forms, which are all conveniently collected in the online database, STEDT. The forms display three major characteristics;

- They usually reflect the attestations in only a small subset of Tibeto-Burman languages, typically Chinese, Written Tibetan, Written Burmese and Lolo-Burmese.
- They omit common regional forms attested in the minority languages from Nepal to northeast India if these do not have reflexes in the eastern and/or written languages
- They exclude the possibility of borrowing from the other language phylum intertwined with Sino-Tibetan, Austroasiatic, despite some rather obvious examples, such as ‘crossbow’.

The focus on written languages is as misleading in this part of the world as it is in Indo-European studies. Written languages are not proto-languages and may never have been intended to represent the spoken form. Blench (2014, in press) has argued that Sino-Tibetan must be older than 6000 BP, in the light of an absence of credible reconstructions for agriculture. In this case, most of the history of the phylum was played out in epochs when transmission was exclusively oral. The conclusion must be that typical published PTB forms are mesolects at best and thus less than ideal for determining the affiliation of languages with more problematic lexica.

The underlying problem here is that the relationships of many minority and isolated languages in the west of the Tibeto-Burman area have never been demonstrated, either with one another or with the wider phylum. The classificatory tradition of Tibeto-Burman studies, which can be traced back at least to Konow, is to assume affiliation based on geography and a few lexical similarities. It is worth pointing out that this is strongly contrary to practice in other regions of high linguistic diversity. The New World is a region of high phyletic diversity and yet there are a number of so-called ‘pan-Americanisms’, widespread lexical or grammatical forms which cross language family boundaries (Campbell 1991). On a more restricted scale,

the Amazon a region encompassing both several large phyla (Arawakan, Cariban, Tupian etc.) as well as small phyla and isolates. Nonetheless, there are common regional features which have clearly diffused between families along pathways still unknown. Aikhenvald (2012: 70) notes *kuku* ‘mother’s brother’ and the negative affix *-ma* among others as pan-Amazonian features. These are not considered evidence for language affiliation. The same is true for Australia; divided between Pama-Nyungan and cluster of small language phyla there are also Australia-wide lexemes which are not used to determine genetic classification (Heath 1978, 1981; Koch 2014). The Papuan languages Melanesia again have the same phenomena. Reesink (2005: 202) lists some of the widespread forms in Papuan which are not taken as evidence of affiliation, including **niman* ‘louse’.

In the light of this comparative evidence, claiming classifications based on regional lexicons is simply not adequate. For example, the root for ‘two’ is remarkably stable, surfacing as *C₂ni* in many languages. However, ‘one’ and ‘three’ are far more diverse. ‘Sun’ and ‘moon’ are relatively stable (if much compounded) whereas ‘star’ is unstable. The usual hypothesis would be that these terms have some local cultural importance, not that they demonstrate genetic affiliation. The only method is the tried and tested comparative-historical, which assumes that there should be a significant percentage of cognate terms and that they should show some regular relationship to the proposed reconstructed forms. Grammatical isomorphs, although valuable for many families, are of limited use in this region. Given the high incidence of borrowing, even for fundamental vocabulary, reasons must be presented for rejecting the hypothesis that similarities are loanwords.

4.3 Milang

The relationship with Milang has been the subject of a more detailed paper (Post & Blench 2012). The results are only repeated here in summary. Milang was previously considered to be a Tani language, but it is now thought to be outside Tani, although having come under heavy cultural influence from Padam. However, it shows some striking correspondences with Koro, and the proposal is that the two were originally part of a hypothetical phylum, Siangic, which was split apart by the expansion of Tani. Table 4 shows the Comparative Siangic datasheets drawn from the cited paper;

Table 4. Comparative Siangic datasheets

Semantic field	Gloss	PCR	Koro	Milang	PT	Adi (other)	Other TB
food, crops, animals	‘cultivated field’	*pu	pu	a-pu	*rik	a-rik	N/A
	‘rice paddy’	*k(h)i	kiraka	du-ki	*ma ~ mo ~ pim ~ am	amo, ambin, apin	*ma ~ *mey
	‘bamboo’	*fu	fu	a-hu	*fiə	eŋ	N/A
	‘chicken’	*cjo	co-le	a-cu	*rok	pə-rok	N/A
	‘egg’	*(cjo)-ci	cu-ci	ci-ci	*pi	(rok-)pi	*ʔu, *t(w)i(y) (< water?)
	‘mithun’	*su	sù	a-su	*a-so	ə-so	?
	‘bird’	*pju	po-le	ta-pju	*pa-taŋ	pə-ttaŋ	WT/PLB *bya, Jinuo pyə ³³
nature	‘sun’	*mə(y)	me-ne	məə-ruŋ	*doŋ-ni	doo-ni	PLB *məw (Lahu mû)
	‘day’	*nə(y)	me-ne	a-nə	*loŋ	loŋ-ə	PTB *nə(y) (Tib, Bur...)
	‘yesterday’	*ba-nə(y)	ba-n(e)	ba-nə	*mə-lo	mə-lo	
	‘fire’	*mi	mi-la	a-mi	*a-mə	ə-mə	PTB *mey
numerals	‘stone’	*bu	u-bu	da-bu	*liŋ	ə-liŋ	*luŋ
	‘two’	*nə(y)	(ki-)ne	nə	*ni	a-ni	PTB *ni

Semantic field	Gloss	PCR	Koro	Milang	PT	Adi (other)	Other TB
body	‘seven’	*rVŋ(?)	rõ	ra-ŋal	*kV-nV(t)	kənit	PTB *ni
	‘eight’	*ra(N)	rã-la	ra-jəŋ	*pri-ŋi	piŋi	*gyat/ryat/rit
	‘ear’	*raŋ(u)	rã	ra-ŋu	*ŋa(-ruŋ)	ŋo-ruŋ	PTB *na (many)
	‘vagina’	*ce(k)	cek	a-cci	*ti(i)	ittə (Galo)	PTB *s-tu (Lai Chin chu) ?
	‘neck’	*laŋ	lã	a-laŋ	*a-liŋ	a-liŋ	PTB *liŋ (prob. mis-tr.)
colour	‘beard’	*kjaŋ-mV	caa-mi	kjaŋ-ma	*nap-mit	nam-mit	initial N/A, final common
	‘foot/leg’	*bja	ni-bi	a-bja	*bjaŋ ‘thigh’	ar-baa (Galo)	*mil/mul/myal
	‘boy’	*ma	ma-le	jaa-ma	*meŋ	jaa-meŋ	N/A
	‘green/blue’	*ja-caŋ	jã-ca	jə-caŋ	n/a	ja-zee (Galo)	N/A? OC <i>sěŋ</i> ‘fresh’, Jp <i>tsĩŋ</i> ‘grass’, Garo <i>thaŋ</i> ‘alive/green/raw’ ?
	‘red’	*laŋ	lã	jə-laŋ	*ja-liŋ	ja-liŋ	N/A
functors	‘arrow’	*pa	pa	a-ppa	*a-puk	ə-puk	N/A
	‘ladder’	*b(r)ja	i-bi	da-bja	*lə-braŋ	lə-bjaŋ	N/A
	‘negative verb suffix’	*-ŋa	-ŋa	-ŋə	*maŋ	-maŋ	PTB *ma
	‘locative’	*la	la	l(a)	*lo	lo	PTB *la
	‘desiderative’ ⁴	*-mi	-mi	-mi	*-liŋ	-liŋ	?
verbs	‘cut’	*pi	pi	pi	*pa	pa	?
	‘have (be there)’	*kjo	ko	cu	*ka	ka-	?
	‘give’	*ram	rã	ram	*bi	bi	PTB *bəy
	‘know’	*fu	fu	hu	*ken	ken	*kyən (WT mkhen)
	‘eat’	*tju	to	tu	*do	do	*dzya (hard to say)
	‘imbibe (drink/smoke)’	*caŋ	ca	caŋ	*tiŋ	tiŋ	Mpi taŋ < > toŋ ?

4.4 Idu-Tawrã

Modi (2013) following up on a suggestion by Sun (1993) compared both Milang and proto-Tani with Idu-Tawra, and found significant lexical correspondences. These are extremely striking but the calculations were based on lookalikes, without clearly determining whether these are loanwords, accidental resemblances or evidence for genetic affiliation. In many cases, the forms are so close that borrowing is an obvious explanation. It is striking, however, that Koro also shares etymons with Idu-Tawrã, including words which are often quite different in Milang and Tani. The most striking examples are presented in Table 5;

⁴ Seemingly only when negated in Koro.

Table 5. Shared Koro-Idu/Tawra etymons

Gloss	RMB	Others	Idu-Tawra correspondence
ant		pafu	cf. Idu <i>pāsī</i> ,
bird	pùlé	pule, pole (GA)	< French <i>poulet</i> . cf. Milang <i>ta.pu</i> , Idu <i>prā</i> ,
bitter		aka	cf. Milang <i>kaa</i> , P-Tani <i>*kaa</i> , Tawra <i>ka</i> , Kman <i>khamin</i>
face	àpă	apia	cf. Tawră <i>apăă</i> ,
faeces		ik ^ɾ a (GA)	cf. Idu <i>khè</i> ,
four	kople	kople	cf. Miji <i>bli</i> , Idu <i>kàprì</i> , then possibly CTB <i>*b.ley</i> . Only Idu shares the kV prefix
horn	jiru	nuru	cf. Idu <i>rù</i> , Milang <i>a.rəə</i> , P-Tani <i>*rəŋ</i>
leaf	nino	nino	cf. Idu-Tawra <i>ná</i> , also then some Tani
man	mùr	moro	cf. Idu <i>īmú</i> ,
moon,	ala	ala	cf. CTB <i>*s.la</i> , Idu <i>ela</i> , Tawra <i>halo</i> ,
month			
net		sā ~ sō	cf. Tawra <i>fā</i> ,
paddy	ki	k ^h i	Not CTB. cf. Idu <i>kə</i>
pig	lèlè	lele	Not CTB, but cf. Idu <i>ili</i> , Miji <i>lii</i>
salt		pro, plo (GA)	cf. P-Tani <i>*lo</i> , Idu <i>pră</i> .
snake		gabū, gibu (GA)	cf. Idu <i>tàbù</i> ,
star	dobre	dure, dogre (GA)	cf. Idu <i>āndīkrū</i> ,
sun	mini	mine, mene (GA)	cf. CTB <i>*nəy</i> , Mey <i>nini</i> , Idu <i>īnī</i> ,
urine	tusuŋ		cf. Idu <i>t^hēci</i> ,

There is also a striking morphological parallel, the use of a kV- prefix on count numerals. This only applies to lower numerals in Koro, but Idu uses them from 1-8.

The explanation for these correspondences is unclear. Koro and Idu in particular are geographically quite remote. However, the expansion of Tani must have transformed the linguistic geography of this region quite significantly. As suggested in Figure 1 there may once have been a small phylum, ‘Greater Siangic’, which spread between the Idu-Tawră area and Koro. Other putative languages, here called ‘pre-Tani’ may have occupied the geographical region which is now Tani-speaking. The cognates between Idu and Koro either represent early borrowing between Idu-Tawră and Siangic (i.e. Koro-Milang) or else all these languages were formerly genetically affiliated. Only significantly more lexical and grammatical data on Koro and Milang can resolve this issue.

4.5 Tani

Koro also shows some clear similarities to the Tani languages. This can arise from two sources, recent borrowing from neighbouring languages, particularly Nyishi, and correspondences with proto-Tani which must date back to the early period of Tani expansion. Table 6 lists some of these apparent similarities.

Table 6. Koro correspondences with Tani

Gloss	Author	Other sources	Commentary
blood	ìvĩ	evi	Not CTB but cf. P-Tani *vii.
cloud	mgvã	mukba, mugba (GA)	cf. P-Tani *muk, Hruso <i>mum</i> ,
ear	rãã	ra	cf. Milang <i>ra.ju</i> . P-Tani * <i>na.ruŋ</i> (? metathesis). *r.na is widely reconstructed for CTB.
fat		ufu	not CTB but proto-Tani *-fu ‘fat, grease’
hair	dʒù mí	dʒumi	dʒù is ‘head’ so <i>mi</i> must be the general term for ‘hair’. Not CTB but P-Tani *mit
leaf	nino	nino	Not CTB but possibly compare Idu <i>ná</i> , also P-Tani *nə.
penis		mlak ^h (GA)	cf. P-Tani *mrak, Idu àlùkù, Miji málò?, Hruso u/o.
skin	nìpí	nipi	Not CTB but Tani languages often have <i>pin</i>
testicle		tampɛ	cf. some Eastern Tani e.g. Damu təp pu,
tooth	fĩ	p ^h i, phi (GA)	Not CTB. cf. P-W Tani *fi.

4.6 Miji and Hruso

Koro shares a small number of lexical items with its neighbours, Mijiic and Hruso. These are not numerous enough to posit any genetic relationship, and are presumably borrowings, although the direction of such loans is not established. Given the close cultural convergence between these three neighbouring peoples, the small number of similarities is quite remarkable. Table 7 shows the correspondences between Koro and both Hruso and Miji so far identified.

Table 7. Koro correspondences with Hruso and Mijiic

Gloss	Koro	Commentary
breast	apu	cf. Hruso <i>ap^hu</i> . V- prefix for body parts, plus a Tibeto-Burman root for ‘breast, milk’ etc. discussed by Matisoff (2008: 104 ff.) under *pa and *m-pup.
elder brother	àmà súŋ	cf. Hruso <i>àmà</i> ‘father’s sister’
eye	nìram	cf. ‘tail’. The -ram element has no external cognates but cf. Hruso <i>əni</i> , Dirang Monpa <i>rniŋ</i> , some Tani <i>ni(k)</i>
girl	mimiŋa	cf. Hruso <i>mimsa</i> ,
penis	mlak ^h (GA)	cf. P-Tani *mrak, Idu àlùkù, Miji málò?, Hruso u/o.
tear	nìfĩ	cf. Hruso <i>ənisə</i> but possibly a compound ‘body + water’
tiger	f̣aru	Not CTB. ? cf. Hruso <i>ɛf̣ə</i> ,
younger brother	nè súŋ	cf. Hruso <i>ju</i> ,

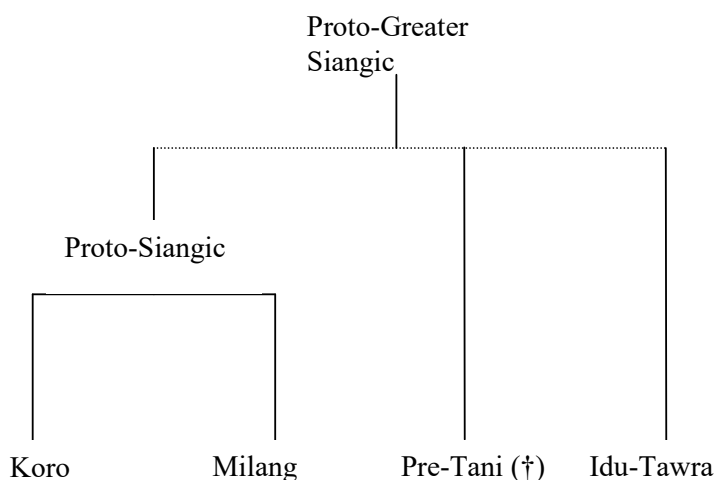
5. Synthesis

On the basis of this the broad conclusions are;

- Koro is not Sino-Tibetan and nor are the languages with which it is related. Sino-Tibetan etymons are either lookalikes or regional borrowings.
- Koro has some sort of special relationship with Milang and Idu-Tawra which is probably genetic.
- Koro also has correspondences with Tani probably both more recent borrowings and cognates with proto-Tani. These items are not reflected in CTB and must thus represent the non-Tibeto-Burman substrate in Tani, i.e. pre-Tani
- Resemblances with Miji and Hruso are recent borrowings

If this analysis is correct then a ‘greater Siangic’ can be proposed whereby the pre-Tani Milang is the closest relative of Koro and the Idu-Tawra languages the next relative (Figure 1). This would constitute an independent phylum which has come to look similar to Sino-Tibetan because of regional contact.

Figure 1. Greater Siangic



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