Negation in Kho-Bwa: A typological comparison

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Summary

The Kho-Bwa languages Puroik (Sulung), Bugun (Khowa), Sherdukpen, Sartang, Khispi (Lishpa) and Duhumbi (Chugpa) are generally presumed to form a small, coherent cluster within the Sino-Tibetan language family. They are spoken in western and central Arunachal Pradesh in Northeast India. The latter four languages form an established sub-group, the Western Kho-Bwa languages.

The Kho-Bwa languages are characterized by a few typologically idiosyncratic negative forms and negation strategies. The inherited Kho-Bwa negation prefix is ***ba**, unlike basically all other Sino-Tibetan languages that have negation markers deriving from a bilabial nasal onset, ***ma**. The Kho-Bwa negation prefix is a real prefix, forming a single phonological unit with the verbal or deverbalised form it modifies. Unlike some neighboring languages, such as the Tani languages that have post-verbal negation, negation in the Kho-Bwa languages is predominantly, but not exclusively, pre-verbal, more like other neighboring languages, such as the Bodish and Hrusish languages.

Specific negation strategies that show variation within the Kho-Bwa languages and may serve as means to further sub-group them include the strategies for negation of derived adjectives, the negation of serial verb constructions, the negation of noun-verb compounds and the form of the negative imperative (prohibitive).

Key words: negation, Kho-Bwa, Sino-Tibetan, typology, phylogenetics

1. Introduction

This paper aims to describe the negation strategies employed in a small group of languages known in the linguistic literature as the Kho-Bwa languages (van Driem 2001: 473), spoken in the western and central part of the state of Arunachal Pradesh in Northeast India. In this paper, I provide an example of how negation strategies can be a typological feature for the sub-classification of languages.

In section 1, I provide a short introduction into the Kho-Bwa languages, as this small cluster of languages continues to be a rather unknown group within the Sino-Tibetan language family. I also explain the sources of my data. In section 2, I describe the standard Kho-Bwa negation marker, the marker that is used in declarative main clauses with verbal predicates. I show an example of an asymmetric negation paradigm in Duhumbi. I also place this marker in a comparative perspective from both a phonological and a morphosyntactic point of view, in order to illustrate the peculiarity of the marker. In section 3, I shortly discuss the Western Kho-Bwa prohibitive and compare this marker to the situation in the other Kho-Bwa languages and other Sino-Tibetan languages. In section 4, I give a concise description of the negative copula and copular verbs, focusing on Duhumbi, but also providing comparative examples from other Kho-Bwa languages. In sections 5, 6 and 7, I pay attention to the ways in which the Kho-Bwa languages negate noun-verb predicates, serial verb constructions, and the formation of negative adjectives, respectively. In section 8, I provide a typological summary of negation in Kho-Bwa, followed by some concluding remarks on the usefullness of negation strategies in the subclassification of these languages.

1.1 Kho-Bwa

The Kho-Bwa languages are a cluster of linguistic varieties spoken in western and central Arunachal Pradesh in India. Which of these varieties belong together as 'languages' and which varieties are 'dialects' is an unresolved matter. For the purpose of this article, I broadly follow the classification that has been used in our earlier publications (Bodt 2012, Bodt 2014, Lieberherr and Bodt 2017, Bodt 2019 and Bodt 2021) as well as the Glottolog (https://glottolog.org/resource/languoid/id/khob1235) and Ethnologue (https://www. ethnologue.com/subgroups/kho-bwa). This classification broadly follows the classification into 'Scheduled Tribes'. The Puroik, the Bugun and the Sherdukpen have been recognized as Scheduled Tribe since Indian independence. The Sartang have more recently claimed a separate Scheduled Tribe status from an earlier submersion under the Monpa Scheduled Tribe, whereas the Khispi and Duhumbi are still part of the Monpa Scheduled Tribe. In this article, *Kho-Bwa* refers to the entire cluster of languages. *Western Kho-Bwa* refers to the varieties of Sartang and Sherdukpen and Khispi and Duhumbi. *Puroik* refers to the varieties of Puroik, and *Bugun* refers to the varieties of Bugun. I will use these names also

in preference over names such as Sulung (for Puroik), Khowa (for Bugun), Chugpa (for Duhumbi), Lishpa (for Khispi), Butpa (for Sartang) or Mey (for Sherdukpen). Table 1 presents the basic details of the Kho-Bwa varieties: names, sub-varieties, speaker numbers, and language codes.

group/language	ISO 639-3	variety	speakers
Puroik	suv		
Eastern Puroik		Chayangtajo (+Lasumpatte)	n.a.
		Kurung Kumey	n.a.
		Sario Saria	n.a.
Western Puroik		Rawa	n.a.
		Kojo-Rojo	n.a.
		Bulu	7–20
Bugun	bgg	Bichom (+Ramu)	700
		Wangho (+Dikhyang)	300
		Kaspi	100
		Namphri	200
		Singchung	700
Western Kho-Bwa			
Sartang	onp	Khoina	500
		Jerigaon	400
		Khoitam	500
		Rahung	600
Sherdukpen	sdp	Rupa	3,000
		Shergaon	1,500
Khispi	lsh		1,500
Duhumbi	cvg		600

Table 1The Kho-Bwa varieties

The varieties of Puroik are actually so distinct from each other that they may rather qualify as distinct languages. They are spoken across large swathes of mountainous jungle in the eastern part of the Kho-Bwa area. Although estimates for the total number of Puroik speakers range between 5,000 and 10,000, Lieberherr and Bodt (2017) list individual speaker populations of the Puroik varieties as no more than a few hundred each. The handful of Bugun varieties are spoken by around 2,000 people in a confined geographical area. There is no description of the internal diversity and classification of the Bugun varieties,

and the varieties mentioned here are largely based on Lieberherr and Bodt (2017). Sherdukpen is spoken in two varieties, Rupa and Shergaon, by a total of around 4,500 people. The Sartang varieties, Khoina, Jerigaon, Khoitam and Rahung are spoken by less than 2,000 people. Finally, Khispi and Duhumbi are spoken by some 1,500 to 2,000 people. Khispi and Duhumbi are largely mutually intelligible (Bodt 2020: 46–47). Figure 1 shows the approximate location of the Kho-Bwa varieties.

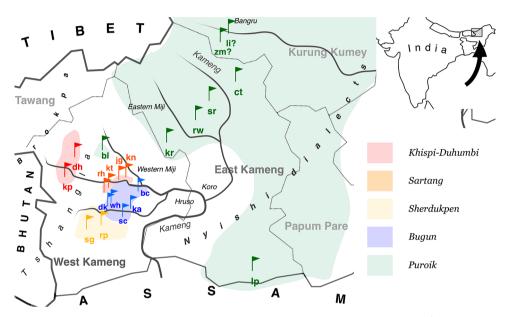


Figure 1 Linguistic map of Western Arunachal Pradesh with the Kho-Bwa varieties¹ (reproduced from Lieberherr and Bodt 2017).

Several ideas have been set forward about the affiliation between these languages ever since the contours of the cluster were first established by Tian-Shin Jackson Sun (Sun 1993). An overview of these ideas is provided in Lieberherr and Bodt (2017). In that paper, we show on basis of a comparison of shared core vocabulary that the Kho-Bwa languages form rather distinctive internal clusters. The heat map we generated clearly indicates three clusters: 1. Khispi, Duhumbi and the Sartang and Sherdukpen varieties, with Khispi and Duhumbi slightly apart from the Sartang and Sherdukpen varieties; 2. the Bugun varieties; and 3. the internally most diverse Puroik varieties. We also compared the core vocabulary of the Kho-Bwa varieties with that of other languages and reconstructed proto-languages of the region: Proto-Bodo-Garo, Proto-Tani, Proto-Kuki-Chin, Written Burmese, Bhutan

¹ kp=Khispi, dh=Duhumbi, bl=Bulu, rh=Rahung, kt=Khoitam, jg=Jerigaon, kn=Khoina, shg=Shergaon, rp=Rupa, sc=Singchung, dk=Dikhyang, wh=Wangho, kap=Kaspi, bc=Bichom, kr=Kojo-Rojo, rw=Rawa, sr=Sario Saria, ct=Chayantajo, lp=Lasumpatte, zm? and li?=Kurung Kumey.

Tshangla, Written Tibetan and Proto-Hruso. The resulting heat map shows that all the Kho-Bwa varieties share a higher percentage of core vocabulary with each other than with any of these other languages. The smallest differences are found between the Bugun varieties and Proto-Hruso and the Bugun varieties and the Sartang varieties, which is not entirely surprising given the fact that Hruso varieties like Miji and Hruso Aka are contact languages for Bugun and Sartang. In addition, sensitivity analysis showed that this result is robust and unlikely the result of mere chance.

The conclusions we draw from the paper (Lieberherr and Bodt 2017) are that the Kho-Bwa varieties most likely *do* form a coherent sub-group of the Sino-Tibetan languages, and that they are more closely related to each other than to any of the other languages and reconstructed proto-languages we included in our analysis. Our paper also showed that there are three clear sub-groups in Kho-Bwa: The Western Kho-Bwa varieties including Khispi, Duhumbi, the Sartang varieties and the Sherdukpen varieties; the Bugun varieties; and the highly diverse Puroik varieties. Our paper does not show that Bugun and Puroik group together in "Eastern" Kho-Bwa like the Western Kho-Bwa varieties do.

These broad conclusions are also the outset of this paper, and as this paper will show, the available data on negation provide additional evidence for the internal sub-grouping of the Kho-Bwa languages proposed in Lieberherr and Bodt (2017).

1.2 Data and Methodology

The majority of the data that I use in this paper are my own: Whenever no source is mentioned, the data are mine. I collected these data between 2012 and 2019 as part of my PhD and postdoctoral researches. The Duhumbi data have earlier been published in Bodt (2020). The Khispi and Sartang data are all my own. In the case of the latter, this is mainly because the only other available source (Dondrup 2004) does not differentiate between the four varieties of Sartang. The Sherdukpen data are my own, unless mentioned otherwise: I make use of Jacquesson's 2015 description of Rupa Sherdukpen whenever my own data are incomplete or inconclusive. For Bugun, I use my own limited data, with additional reference to Lander-Portnoy 2013, Dondrup 1990 and Barbora 2015. For Puroik, I rely on Lieberherr's 2017 description of Bulu Puroik. Sources for the comparative data from other languages are my own unless mentioned otherwise.

In general, I will provide examples of negation strategies for each of the Kho-Bwa varieties whenever these are available. In deciding on which negation strategies to focus, I broadly follow the various categories in Miestamo's typological work (Miestamo 2007, 2017). I then compare these strategies to each other, as well as to those of other Sino-Tibetan languages.

From a semantic perspective, negation can be defined as an operator that changes the truth value of a statement to its opposite (Miestamo 2017: 405). Different languages employ different negative constructions. In typological work on negation, focus has primarily been

on standard negation (section 2, 5 and 6), the negation of imperatives (section 3) and the negation of non-definite pronouns (not addressed in this paper due to insufficient data from the varieties under discussion). Less common in typological studies are negation in non-declarative sentences with copula (section 4) and negative adjectives (section 7). These two topics, as well as the specific cases of standard negation of noun-verb predicates and in serial verb constructions, were included in this paper because of the importance of these grammatical phenomena in the Kho-Bwa varieties.

2. Standard Negation

With standard negation I refer to negation in declarative main clauses with verbal predicates (Miestemo 2005: 39–45). Payne (1985) identifies three types of negative markers: negative affixes, negative particles, and negative verbs. The Kho-Bwa languages are characterised by standard negation with negative affixes, and are hence canonical Sino-Tibetan languages with morphological rather than syntactic negation.

2.1 Standard Negation in Kho-Bwa

Standard negation in declarative main clauses takes place in the Kho-Bwa languages with a basic negative prefix. All the Western Kho-Bwa varieties and all the Puroik varieties have a negative prefix for verbal predicates derived from a reconstructed prefix ***ba**. Because of the iambic rhythm of the Sartang and Sherdukpen varieties, the vowel of the inherited prefix is commonly reduced to a schwa, with additional harmonisation between the vowel of the negative prefix and the vowel of the verb root it modifies. On basis of the available data, Bugun is the only exception among the Kho-Bwa languages, having a negative prefix **a**-.

(proto-)language	source	negation prefix
Proto-Western Kho-Bwa	Bodt 2019	*ba-
Khispi		ba-
Duhumbi		ba-
Sartang		bə-
Sherdukpen		bə-
Proto-Puroik	Lieberherr 2015	*ba-
Bugun		a-

Table 2 Kho-Bwa negative prefixes

The only anomaly can be found among some speakers of Rupa Sherdukpen, who have a

bilabial nasal onset of the negative prefix, rather than a bilabial plosive onset, as is shown in example (1). This observation was also reported by Jacquesson (2015: 120).

(1)
a. t^hyk-gɔ-ɔ̃ hũ bə-mɔ̃-ba village-LOC-GEN salt NEG-get-NOM
'In the village (we) don't get salt.'
b. t^hyk-gɔ-ɔ̃ hũ mə-mɔ̃-ba village-LOC-GEN salt NEG-get-NOM
'In the village (we) don't get salt.'

The reason for this variation is unknown, perhaps it is a Tibetan or Tshangla contact language influence among older, religiously educated speakers.

2.2 Morphology of Standard Negation

Negation in the Kho-Bwa languages is pre-verbal, as these positive and negative example sentences (2a) to (2o) show.

(2)a. Duhumbi: ga den-de? 1SG know-PRS 'I know.' b. ba-den ga NEG-know 1SG 'I don't know.' dɛn-de c. Khispi: ga 1SG know-PRS 'I know.' d. ba-den ga 1SG NEG-know 'I don't know.'

e. Khoina	gu 1SG	m ã-p^hõ get-PRF			
	'(I) go	ot.'			
f.	gu 1SG	bə-ma NEG-get			
	'(I) di	d not get.'			
g. Khoitam:	gu 1SG	den know			
	ʻI kno	w.'			
h.	gu 1SG	bə-dɛn NEG.know			
	ʻI don	't know.'			
i. Rupa:	dzap-ma be.good-IPFV				
	'(It) w	vill be good.'			
	ba-dzap-ma NEG-be.good-IPFV				
	ʻ(It) w	von't be good.'			
j. Shergaon:	dzap- be.good	-			
	'(It's)	good.'			
k.		ap-pa e.good-NOM			
	'(It's)	not good.'			
l. Puroik:	dẽ know				
	'(I) kr	now' (Lieberherr 2017: 359)			

m.	gu ba-d ɛ̃ 1SG NEG-know
	'I don't know' (Lieberherr 2017: 275)
n. Bugun	naŋ drink
	'to drink' (Dondrup 1990: 19)
0.	a-naŋ NEG-drink
	'(to) not drink' ² (Dondrup 1990: 19)

In the Khoina, Khispi, Duhumbi and Khoitam examples, but also in comparative examples from other languages of the region in section 2.4, any additional tense or aspect marking in an affirmative declarative sentence, such as a present marker, an imperfective marker or a copula, is lost in the negated declarative sentence.

2.3 Asymmetric Negation

In Duhumbi the imperfective form of the verb does not have a negated form. Instead, the negated form of an imperfective clause in the past tense is the same as the negated form of the past perfective. This is an example of an asymmetric paradigm, where the paradigm in the affirmative has a distinction which is no longer shown in the negative. In asymmetric negation, we generally observe structural differences between affirmatives and negatives in addition to the presence of negative markers (Miestemo 2017: 407). The particular case of Duhumbi reflects the relationship between aspect and negation discussed in detail in Miestamo and van der Auwera (2011). The Duhumbi case also lends additional evidence against, among others, Schmid's (1980) claim that the perfective aspect would be excluded from negation and that the imperfective aspect would appear instead: In Duhumbi, the opposite holds.

An example from Duhumbi can be found in (3), where the affirmative answer b. to question a. uses the imperfective in -da IPFV, but the negative answer c. uses a negated past perfective marked by the nominaliser in -ba NOM. The imperfective is used here in the affirmative because it describes an event or action that occurred over a certain period of time, but was completed in the past; the action, and not the duration or the outcome, is emphasised. If the result or outcome of the event or action that began and ended at a par-

² Note, that Dondrup (1990: 19) glosses this example as 'do not drink', i.e. a prohibitive, however, given the context of these examples '*a* is prefixed to the verb to indicate negation', I presume he refers to standard negation here, i.e. the negated form of 'to drink', 'to not drink'.

ticular time in the past is of importance to the speaker at the moment of speaking or if that result or outcome is otherwise emphasised, then the past perfective in -ba NOM would have to be used.

(3)

a. naŋ 2SG	dejju yesterda	1	filem movie	doj-da look-IPFV	k ^h ip -ba =ni cry-NOM=Q
'Did y	ou cry	watching the Bl	nutanese m	ovie yesterda	iy?'
b. oŋ Yes	k ^h ip-c	V			
'Yes,	(I) cried				
c. boju NEG.C	OP.EQ	ba- k ^h ip -ba NEG-cry-NOM	-	^h ip- da } ery-IPFV}	
'No, (I) did no	ot cry.'			
Infortunat	alv I d	a not have com	norativa de	to on a simi	lar nhanamanan

Unfortunately, I do not have comparative data on a similar phenomenon for the other Kho-Bwa languages. Future research may reveal that asymmetric negation is more common in the Kho-Bwa languages.

2.4 Comparing Standard Negation

The bilabial plosive onset for the standard negation marker is a unique phonological innovation of the Kho-Bwa languages. From West to East, all the Sino-Tibetan languages have a bilabial nasal onset for the negative prefix, as is illustrated by the selected examples in Table 3.

language	source	negation affix
Kho-Bwa		
Proto-Western Kho-Bwa	Bodt 2019	*ba-
Proto-Puroik	Lieberherr 2015	*ba-
(Bugun		a-)
Other ST		·
Bunan	Widmer 2014	ma-
Kham	Watters 2004	ma-

 Table 3
 Selected negative markers in Sino-Tibetan languages

Limbu	van Driem 1987	mɛ-
Lepcha	Plaisier 2007	ma- (PROH)
Tibetan		ma- (PROH/PST)
Dhimal	King 2009	ma-
Galo	Post 2007	-máa
Mongsen Ao	Coupe 2007	mà-
Kyom-kyo rGyalrong	Prins 2016	ma-
Qiang	LaPolla and Huang 2003	mə-
Chinese	Baxter and Sagart 2014	無 <i>mju</i> < *ma'not have'

Unlike the phonological form of the standard negation marker, the Kho-Bwa preverbal negation is common among Sino-Tibetan languages. It is also found in basically all the neighbouring languages, as the examples from Miji, Tshangla and Tawang Monpa in (4) show. Notice, again, how all these languages have a negative prefix with a bilabial nasal and also, how the negated declarative sentences commonly lose the tense and aspect markers that are present in the affirmative sentences.

(4)

	a. Miji:	<mark>றவற றi-ne</mark> 1SG know-?			
		ʻI kno	w.' (Simon 1979: 13)		
	b.		ma- ɲi NEG-know		
		ʻI don	't know.' (Simon 1979: 13)		
	c. Tshangla:		se-n-tça know-SE-COP		
		'I know.'			
	d.		ma-se-la NEG-know-COP		
		'I don	't know.'		

e. Tawang Monpa: ŋe: kan.dur 1SG know.PRS 'I know.' f. ŋe: ma-kan 1SG NEG-know 'I don't know.'

To my current knowledge, there are only three exceptions to the Sino-Tibetan negative prefix with a bilabial onset, and all three are found in postverbal, rather than preverbal position. The first one seems to concentrate among the languages spoken in the plains of the Brahmaputra, such as Karbi and the Boro-Garo languages such as Rabha and Atong, as is illustrated in Table 4. The negation postfix in these languages is rather consistent and may therefore represent an old retention or independent innovation.

	* *	
language	source	negation postfix
Karbi	Konnerth 2014	-Cē
Rabha	Joseph 2007	-ca
Atong	Breugel 2014	-ca
Proto-Bodo-Garo	Joseph and Burling 2006	*-ya ⁰

 Table 4
 Negation postfixes in selected languages of the Brahmaputra valley

Another exception is evidenced by a rather motley and geographically diverse group of languages that have a different postfix that may be cognate. Some languages that show this marker are presented in Table 5.

language	source	negation postfix	
Milang	Modi 2017	-ŋə	
Lepcha	Plaisier 2007	ma-V- ne	
Limbu	van Driem 1993	-nɛn	
Liangmai	Widinibou 2017	mak-V- ngei	

 Table 5
 Negation postfixes in selected languages

Notice, how Lepcha and Liangmai combine this postfix with a negative prefix that seems to derive from the inherited Sino-Tibetan prefix ***ma-**. This type of what is sometimes referred to as 'double negation', with the simultaneous presence of two markers of nega-

tion, is not uncommon, and is also found in, for example, French *je ne sais pas* 'I don't know' (Dryer 2013 [2005]). In the languages of Table 5, the dental or velar nasal suffix may originally have functioned as an emphatical element, with the original inherited negative marker with nasal prefix preserved in Lepcha and Liangmai but lost in Milang and Limbu. This is known as the Jespersen Cycle and was originally reported from Germanic languages (Jespersen 1917).

Finally, there is another group of exceptions where we find postverbal rather than preverbal negation, but with a negation postfix with a bilabial nasal. These are the Tani, some Kuki-Chin and the Angami-Pochuri languages spoken to the East and Southeast of Kho-Bwa, which all have postverbal negation, as the examples (5a) and (5b) from Galo and Poumai Naga show.

(5)

a. Galo	Jii	kəbə	káa- máa		
	person	other	have/exist-NEG		
	'There v	vasn't anyo	one else.' (Post 2007)		
b. Poumai Naga	mai	bo	$t arrow u = ly = m \delta$ -kini		
	people	rice.storag	e eat=SEQ=NEG-while		
	'While the people (the owner) do not eat' (Veikho 20				

Post (2007: 570) indicates that this Galo postverbal negator -máa derives from a Proto-Tani postverbal marker ***maŋ**, which is also confirmed by Sun's reconstruction (Sun 1993: 270). A similar negative postfix can be found in the Kuki-Chin language Purum -mong (Meitei 2017).

In this respect, it is curious to note that the Kho-Bwa language Duhumbi has a postverbal marker -baŋ which denotes a negative present. The present marker in -de? PRS and its negated form in -baŋ NEG.PRS describe a present action over which the agent has no control, or a habit or custom over which the speaker has no control. Examples of the affirmative and negated present are provided in (6).

(6)
 a. woj ts^hemats^he ça tçha-de?
 3SG always meat eat-PRS
 '(S)he always eats meat.'

b. woj adaŋ=raŋ ça tç^ha-baŋ 3SG when=EMPH meat eat-**NEG.PRS**

'(S)he never eats meat.'

Cognates of this marker have not yet been identified from the other Kho-Bwa languages, but as we will see later on, it may derive from the negative Duhumbi copular verb baŋ- 'to be not'. Because the change from bilabial nasal to bilabial plosive is presumed old, Duhumbi may have retained this old negation postfix in this specific context, whereas it was lost in other Kho-Bwa varieties.

The correspondence between the reconstructed Proto-Western Kho-Bwa and Proto-Puroik initial bilabial plosive and the other Sino-Tibetan initial bilabial nasal is regular, as the examples in Table 6 show: There are at least four additional concepts in which the reconstructed Proto-Western Kho-Bwa and Proto-Puroik onset contains a bilabial plosive, whereas other attested or reconstructed Sino-Tibetan languages have a bilabial nasal: 'fire', 'dream', 'name', and 'person' or 'other person'. Characteristically, the Bugun forms for 'fire', 'dream', 'name' and 'human' also evidence this sound correspondence, despite not having it in the negative prefix.

concept	PWKB	РР	Bugun	OTib	Tsh	Bur	PT	PCN	Chi
fire	baj	bai	bote	mye	mi	mīḫ	mə	may	燬 < *maj?
dream	ban	baŋ	ə.bəŋ.bəŋ	Ø	məŋ.çi	mak	jup-maŋ	maŋ	夢 < *C.məŋ-s
name	a.b ⁱ eŋ	a.bjɛn	ə.bɛŋ	myiń	miŋ	maññ < *meṅ	mun	miŋ	名 < *C.meŋ
other person	b ^j i	bii ⁴	bi.jou⁵	myi ⁶	mi ⁷	Ø	mi:	mii	Ø

Table 6 Sound correspondence Sino-Tibetan *m-, Kho-Bwa *b-³

Curiously, however, we find a preverbal negation marker **ba**- and an emphatic form **baŋ-** in the Austroasiatic language Santali, as the examples in (7) show. We will see examples of negation with **baŋ-** in Duhumbi in section 4.

³ OTib and Bur from Hill (2019), PCN from Bruhn (2014), PT from Sun (1993), Chi from Baxter and Sagart (2014).

⁴ 'human'.

⁵ 'human'.

⁶ 'person'.

⁷ 'person'.

(7)

a. Santali:	ba-ko NEG-3pS	baḍae-a know-IND
	'They don'	t know.' (Neukom 2001: 149)
b.	baŋ-ko NEG-3pS	baḍae-a know-IND

'They certainly don't know.' (Neukom 2001: 149)

3. The Prohibitive

In a typological study on prohibitives (second person singular negative imperatives), van der Auwera and Lejeune ([2005] 2013) and van der Auwera (2006, 2010) found that there is a strong tendency for prohibitives to show negative marking different from declaratives. Indeed, most of the Western Kho-Bwa languages have a dedicated negative imperative or prohibitive prefix derived from Proto-Western Kho-Bwa ***tha-**, as is evidenced by the forms for PROH.do 'don't do!' in Table 7. Like the negative prefix, in the Sherdukpen varieties, the vowel of the prohibitive prefix tends to harmonise with the vowel of the verb root it modifies: Whereas də-ra² is realised as [da²-ra²], də-ziŋ PROH.sleep 'don't sleep' would be realised as [di-ziŋ].

variety	example	
PWKB	*t ^h a-	
Khispi	t ^h a-	t ^h a-le
Duhumbi	t ^h a-	t ^h a-li
Jerigaon	t ^h ə-	t ^h -re ²
Khoitam	t ^h ə-	t ^h -re ²
Rahung	t ^h ə-	t ^h -re ²
Rupa	də-	də-ra ²
Shergaon	də-	də-ra ²

 Table 7
 Western Kho-Bwa prohibitives

The Sartang variety Khoina and Puroik, however, do not have a dedicated negative imperative, as is illustrated in example sentences (8a) to (8f), and the situation in Bugun has not yet been described.

a. Puroik: amjɛɛ rii-jan-bo good stay-PRMN-IMP 'Stay well!' $d_3 i = buu^2 = ku^2$ ba-nja?-bo b. ANA=dog=OBJ NEG-make.noise-IMP 'To the dog [he said]: Don't make noise!' (Lieberherr 2017: 236) c. Khoina: ra²-m² do-IMP 'Do (it)!' d. **b**-ra²-wa-dε NEG-do-?-COP 'Don't do (it)!' ts^hu²-m² e. eat-IMP 'Eat (it)!' f. **bə**-ts^hu²-wa NEG-eat-? 'Don't eat (it)!'

The Western Kho-Bwa negative imperative prefix has cognates in several Sino-Tibetan languages, indicating it is an inherited prefix.

(proto-) language	prohibitive	source
Proto-Bodo-Garo	*ta ⁰ -	Joseph and Burling 2006
Bunan	t ^h a-	Widmer 2014
Kham	ta-	Watters 2004
Atong	ta	van Breugel 2014
Mongsen Ao	tà-	Coupe 2007
Qiang	tçV-	LaPolla and Huang 2003

Table 8	Sino-Tibetan	prohibitives
		F

(8)

Unlike the prohibitive, Duhumbi (and Khispi) negates all the other moods, such as the adhortative and the jussive, with reflexes of the standard negation marker ***ba-**, as is shown in the Duhumbi adhortative in (9).⁸ The situation in other Kho-Bwa languages has not been described in detail yet.

(9)
a. Duhumbi: ça tur-ŋu meat chase-ADH
'Let's hunt!'
b. ça ba-tur-ŋu! meat NEG-chase-ADH
'Let's not hunt!'

4. Negative Copula and Copular Verbs

Eriksen (2011: 277) found that that many languages use a strategy different from standard negation for the negation of non-verbal predicates, for which he posits the Direct Negation Avoidance (DNA) principle: '[a]ll non-standard negation of non-verbal predicates is a means to negate such predicates indirectly'. To some extent, we observe this strategy in the Kho-Bwa languages as well: there are several unique negative copulas that do not derive from a negated form of an affirmative copula. In other cases, however, the negated form of a copula is formed through negation of the affirmative form of a copula or a copular verb. However, we can observe significant variation between the various Kho-Bwa varieties. Because most Kho-Bwa varieties are still data-deficient, this section will succinctly present the negative copula in some of the Kho-Bwa varieties, before paying closer attention to the specific situation in Duhumbi. Table 9 presents the equational and existential copula in the Kho-Bwa varieties. The only missing forms are the Jerigaon negated existential and the Bugun negated equational copulas.

	0	1	1	0 0
variety	affirmative	gloss	negative	gloss
Duhumbi	be ²	COP.EXIS	baŋ	NEG.COP.EXIS
	git¢ha	COP.EQ	boju	NEG.COP.EQ

Table 9 Affirmative and negative equational and existential copula in Kho-Bwa languages

⁸ It may be useful to note that with regard to interrogative sentences, another frequently encountered non-declarative sentence type, the Kho-Bwa languages construct negative interrogative sentences in the same way as declarative sentences, i.e. with the standard negation marker ba- (Bugun a-).

Khispi	be	COP.EXIS	baŋ	NEG.COP.EXIS
	git¢ha	COP.EQ	boju	NEG.COP.EQ
Khoina	be ²	COP.EXIS	ba²a²	NEG.COP.EXIS
			by²y	NEG.COP.EQ
Jerigaon	be ²	COP.EXIS	?	
			by ² y	NEG.COP.EQ
Khoitam	be ²	COP.EXIS	bɔ²ɔ²	NEG.COP.EXIS
			by ² y	NEG.COP.EQ
Rahung	be ²	COP.EXIS	bɔ²ɔ²	NEG.COP.EXIS
			by²y	NEG.COP.EQ
Rupa	ba ²	COP.EXIS	bɔ²ɔ²	NEG.COP.EXIS
			be ² e	NEG.COP.EQ
Shergaon	ba²	COP.EXIS	bɔ²ɔ²	NEG.COP.EXIS
			bi²i	NEG.COP.EQ
Puroik	ik ba? COP.EXIS		WEE	NEG.COP.EXIS
	zuu	COP.EQ	bəə ~ ba-bəə	NEG.COP.EQ
Bugun	um	COP.EXIS	oi	NEG.COP.EXIS
			?	

The Khispi, Duhumbi, Sartang and Sherdukpen negative equational copula is thought to drive from a Proto-Western Kho-Bwa form ***ba-ju**. This form combines the standard negation marker ***ba-** with a no longer existent affirmative equational copula ***ju**, which may, however, be reflected in Bulu Puroik equational copula **3uu**. The Sartang and Sherdukpen negative existential copula and the Bulu Puroik negative equational copula are also cognate, likely derived from a Proto-Kho-Bwa form ***ba-a?**. The Khispi and Duhumbi negative existential copula baŋ may also be cognate with this form, although the phonological process resulting in this form is not regularly attested.

In Khispi and Duhumbi, we find both an equational and an existential copula, with both having their respective negated forms, as the examples from Duhumbi in (10a) to (10d) show. However, the situation is different in the Sartang and Sherdukpen varieties. In these varieties, an equational phrase simply juxtaposes the predicate to the subject, without any verb or copula, as is shown from the Rupa Sherdukpen example in (10e). Whereas this is also attested in Duhumbi and Khispi (see Bodt 2020: 329–330), these two varieties more commonly use one of the copulas or copular verbs of sections 4.1 and 4.2. A negated equational phrase, however, needs a negative equational copula even in the Sartang and Sherdukpen varieties, as the example from Rupa Sherdukpen in (10f) shows. Like in Khispi

and Duhumbi, in the Sartang and Sherdukpen varieties, there is a dedicated existential copula, with a negated variant, as the Rupa examples in (10g) and (10h) show.

(10) a. Duhumbi:	ŋa	be ²		
	fish	COP.EXIS		
	'There	e is fish.'		
b.	ŋa fish	baŋ NEG.COP.EX	XIS	
	'There	e is no fish.'		
с.	ga 1SG	duhutma ^{woman}	gitç ^h a COP.EC	
	'I am	a woman.'		
d.	ga 1SG	awu elder.sister		OP.EQ
	'I am	not the elder	sister.'	
e. Rupa:	nu² fish	ba² cop.exis		
	'There	e is fish.' (Jao	equesso	n 2015: 85)
f.	nu² fish	bɔ²ɔ Neg.cop.ex	(IS	
	'There	e is no fish.'	(Jacque	sson 2015: 85)
g.	gu 1SG	gi am TOP won		nu Icky
	'I am	a lucky worr	nan.' (Ja	cquesson 2015: 84)
h.	gu 1SG	U	1khao r.sister	
	'I am	not the elder	sister.'	(Jacquesson 2015: 83)

Like in Duhumbi, the use of the Rupa copula seems to be have an evidential and epistemological basis, which considers the source and nature of the evidence there is for a statement, rather than simply a distinction between equational and existential functions of the copula. Also, the Rupa existential copula ba² and its negated form bɔ-ɔ² seem to be more like copular verbs rather than like copula in the true sense of the word, because like the Duhumbi copular verbs dau- and baŋ-, the Rupa copula ba² and bɔ-ɔ², in a contracted form bɔ², participate to some extent in inflection like other verbs.

As far as described, the situation in Bugun mirrors the situation in the Sartang and Sherdukpen varieties: There is no affirmative equational copula but simple juxtaposition of noun and predicate, as in (11a). Bugun also has an existential copula (11b) and a negative existential copula (11c). The negative equational copula of Bugun, presuming it exists, has not yet been described.

(11)a. Bugun: oi buphua bajo weeya 3SG boy very good 'He is a very good boy' (Barbora 2015: 86) b. sruwa um **COP.EXIS** salt 'There is salt.' (Dondrup 1990: 34) oi c. sruwa salt NEG.COP.EXIS 'There is no salt.' (Dondrup 1990: 33)

Like Khispi and Duhumbi, Bulu Puroik (Lieberherr 2017: 158) makes a distinction between an affirmative and a negative equational and an affirmative and a negative existential copula, as is shown in examples (12a) to (12d).

(12) a. Bulu Puroik: $guu p^{h} \in Nbu \qquad guu = ro$ 1SG Phembu COP=EMPH 'I am Phembu.' (Lieberherr 2017: 191)

b.	0 1	h <mark>eNbu bal</mark> nembu COF	NEG
	ʻI am not	Phembu.' (Lie	berherr 2017: 191)
с.	priNdəə Puroik	di∫idilu=1 Bulu=LOC	ku ba?-bjao-na COP.EXIS-COP.FOC-NPST
	'Only in I	Bulu there are	Puroiks.' (Lieberherr 2017: 344)
d.	la CONJ	WEE NEG.COP.EXIS	
	'But (he)	is not there.' (Lieberherr 2017: 197)

In addition to the negative copula boo, the form ba-boo of the Bulu Puroik negative copula is what Lieberherr calls 'hypercharacterised': It is the negative copula boo preceded by the negative prefix ba-, but his data seem to indicate that ba-boo is more commonly used than simply boo. The existential copula in Puroik has a curious feature, namely that the copula wee functions as affirmative 'there is' in the Eastern Puroik varieties, but as negative existential copula 'there is not' in the Western Puroik varieties. For a more detailed overview of the Bulu Puroik copula, I refer to Lieberherr's 2017 work.

4.1 Duhumbi Affirmative Copula

The Duhumbi copula presented in Table 9 are an oversimplification of the actual situation in the language. Duhumbi has four affirmative copulas, be², gitg^ha, gi and le and one affirmative copular verb, dgu-. The use of these copula is determined by factors of epistemological, evidential, emphatic, and assertive nature, rather than on basis of which relation they express in the non-verbal clause.

The copula be² is used to describe simple facts that are observable or otherwise objectively verifiable and expresses relations of existence, attribution, equation, possession. In this, the existential relation seems to be the most important and original function of the copula. The copula le expresses new, recently acquired and currently relevant information and is found expressing inclusion, existence, equation and possession. The equational relation seems to be the most original function of the copula. The copula gitcha expresses an inherent, inalienable identity and is often used in a kind of emphatic sense in relations expressing inclusion or possession. This copula in its form and function appears to be a loan from Tshangla. The copula ci asserts and confirms the truth of statement and is mainly used in relations expressing equation, attribution and possession.

Finally, Duhumbi has the copular verb dzu-. This copular verb is used in copular sentences that express accumulated, prior or general knowledge and is found in relations

expressing existence, equation, attribution and possession. Like other verbs, this copular verb can be modified by markers of tense, aspect, mood as well as evidentiality and information structuring markers. The copular verb dzu- is likely derived from the verb dzu {da} 'to sit, to stay, to live, to reside'.

4.2 Duhumbi Negative Copula

Duhumbi has two negative copular verbs and one derived negative copula. In (6b), we have seen the root of the copular verb baŋ- as the marker for the negative present. The copular verb baŋ- is the most commonly attested negative copula, negating the affirmative copula and the affirmative copular verb in their existential, attributive and possessive sense. On the other hand, the copular verb boju- can be used in a negative equational sense, to express a lack of identity or inclusion, and to express a lack of possession, in which the negative equational sense is the most common.

The verbal origin of the copular verbs baŋ- and boju- can be concluded from the fact that they can both be modified by the Duhumbi nominaliser. Because the nominaliser is used to express the past perfective, the copular verbs baŋ- and boju- can also occur in sentences referring to a past tense. The negative copular verb boju- has only been attested modified by the nominaliser, whereas the negative copular verb baŋ- has also been attested with other tense/aspect markers, such as the preterite in -ni, the non-past perfective in -ba? and the non-past potential in -dɛu-t^he?. This seems to indicate that boju- actually is a true negative copula that has expanded into the verbal domain, whereas baŋ- is originally a verb that has expanded into the copular domain.

The copula balaŋ is rarely attested and refers to something or someone that was there but no longer is. The copula is the copular verb baŋ in the perfect with -loŋ.

The negative copular verbs baŋ- and boju- have a limited conjugational flexibility. This is also characteristic of the affirmative copular verb dzu-. The copular verbs do not, for example, occur modified by markers that are used in present tense situations, such as the imperfective in -da or the present in -de?. This is rather intuitive, because in present tense situations, the copula themselves will fulfil all the functions. In future contexts, the copular verbs baŋ- and boju- are often replaced by forms of the verb lon 'to come', in a sense of 'to become in the future and then to be'.

What this short introduction into the Duhumbi affirmative and negative copula and copular verbs may illustrate, is that the actual situation of copula in Kho-Bwa languages may be more complex than the situation described in Table 9. Lieberherr's work on Bulu Puroik (2015: 188–197) also gives indications of this complexity. The description that hitherto exists for Rupa Sherdukpen (Jacquesson 2015) either indicates the situation in this language is much simpler, or that the description itself is incomplete. None of the earlier sources on Bugun or the Sartang varieties pays any attention to copula, and the examples it contains are incomplete, unclear, or otherwise not useful for typological comparison.

5. Negation of Noun-Verb Predicates

Complex predicates of a noun and a verb are common in the Kho-Bwa languages. All the Kho-Bwa languages of which descriptions exist have the same way of negating noun-verb predicates, namely by negating the verbal part of the predicate. In (13), we find three examples.

The Duhumbi example (13a) shows that the negation prefix precedes the verbal predicate chat, and not the nominal part $k^{h}ot^{h}o\eta$ of the noun-verb predicate $k^{h}ot^{h}o\eta$ t $c^{h}at$ 'to mind something'. Although the noun $k^{h}ot^{h}o\eta$ means 'hat, cap or headgear' and $tc^{h}at$ means 'to be tired; to be absent; or to be severed', this is not a native Duhumbi noun-verb predicate. Instead, it is of borrowed origin and derives from Tshangla $k^{h}oda\eta$ $tc^{h}at$ 'to mind something' which ultimately goes back to the Tibetan khothag cod 'to make up one's mind'. Whereas the affirmative form of the noun-verb predicate can be glossed as a single form 'to mind', when negated and split by a negation marker, it has to be glossed in a more innovative way, as is shown here. In the Rupa example (13b), the negation of the noun-verb predicate ha $k^{h}\tilde{u}$ 'to be hungry' is placed before the verbal element $k^{h}\tilde{u}$ of the predicate, and not before the nominal part ha. Finally, the Puroik example in (13c) also shows how in negation of the noun-verb predicate hiN tfc? 'to be hungry' the negation marker precedes the verbal part and not the nominal part or the entire predicate.

(13)

a. Duhumbi:	k ^h ot ^h oŋ ^{mind}	ba-t ¢ ^h at, NEG-be.severed	adi how	le=ni COP=Q
	'(We) wor	n't mind, how was	it?'	
b. Rupa:		1-khũ-ziŋ-baõ, 2G-be.hungry-ANT-PFI	bla [.] P work	
	'While I a 104)	m (still) not hungry	7, I will f	finish working.' (Jacquesson 2015:
c. Puroik:	guu hi 1SG ?	N ba-t ∫ε? NEG-be.hungry		
	'I am not	hungry.' (Lieberhe	rr 2015:	142)

This strategy of negation of noun-verb predicates is more common in Sino-Tibetan languages, as the comparative example in (14) from Bhutan Tshangla shows. (14)

Bhutan Tshangla: ai-bakkhodaŋma-t¢hat.pa,haŋtent¢ho-waja?1PL.PLmindNEG-be.severed.NOM,howstay-PSTQ

'We don't mind, how was it?'

6. Negation of Serial Verb Constructions

Like noun-verb predicates, serial verb constructions form an important and integral part of the grammar of all Kho-Bwa languages. They most commonly alter the lexical aspect of a verb, such as the deontic or epistemic modality, the aspect, the voice, or the telicity.

Despite the fact that they occur in all the Kho-Bwa languages, there is a clear split in the way that serial verb constructions are negated between Duhumbi on the one hand, and the other Kho-Bwa languages on the other. Whereas in Sartang, Puroik and Sherdukpen the negative prefix precedes the entire predicate and is prefixed on the first verb of the serial verb construction, in Duhumbi the negative infix precedes the last verb in the predicate, as the examples (15a) to (15d) show.

(15)

a. Puroik:	grii 1PL	kuN ^{up}	ba-vuu-muɛN NEG-go.from.base-can
	'We ca	an't go ı	up.' (Lieberherr 2017: 142)
b. Rupa:	wa 3SG		ig-nyu-re o-want-ITT
	'He do	bes not v	want to go.' (Jacquesson 2015: 101)
c. Khoitam:	gə 1sg.er		bə-t c ^h i-ma-d ε ne NEG.give-finish-PRS
	'I have	e not fin	nished paying the fine.'
d. Duhumbi:	gar 1PL	lej-ta up-ALL	wa- ba -t ^h up move-NEG-can
	'We ca	an't go ı	up.'

Duhumbi seems to show Bodish contact influence in the negation of serial verb constructions, as the comparative examples from Bhutan Tshangla (16b) and Dzongkha (16c) show. Although Dzongkha was not a contact language for Duhumbi, Duhumbi was influenced by other Central Tibetan varieties that have similar constructions, such as Üke and Brokpa.

(16)

a. Duhumbi:	war 3PL	lerim plan=T	0	t¢ ^h ot- ba -t ^h up-ba make-NEG-can-NOM	
	'They	were u	nable to	make that plan.'	
b. Bhutan Tshangla:	rokte- 3PL-PL		lerim _{plan}	tçot- ma- re-ba-la make- NEG- can-NOM-COF	•
	'They	were u	nable to	make the plan.'	
c. Dzongkha:	त्रकत्र याले charzh plan-thi	ni-d'i		איזיאן -tshu-bä EG-can-[AK]	
	(FORM	-			

'[They] were unable to make the plan.' (van Driem 1993: 243)

7. Negative Adjectives

Finally, adjectives in the Kho-Bwa languages can be divided in inherited native adjectives, derived native adjectives, and borrowed adjectives. I will only focus on the native adjectives here because the language contact situation for the various Kho-Bwa languages is too diverse and complicated to focus on all the borrowed forms as well.

7.1 Inherited Negative Adjectives

In the Kho-Bwa languages, inherited native adjectives are marked by an adjective prefix. This adjective prefix is o- or u- in Duhumbi and Khispi, with vowel harmony determining the exact prefix; the schwa ə- in Bugun; and a- (occasionally ə- or u-) in the other Western Kho-Bwa languages and Puroik.

Some inherited native adjectives that express an attribute have unique antonyms that do not rely on negation. Examples are the pairs 'good' and 'bad', 'heavy' and 'light' and 'old' and 'new' presented in Table 10. The only marked exception here is Bugun, which in some adjectives, such as the example of 'bad', has the negative prefix a- that replaces the adjective prefix a-.

variety	good	bad ⁹	light	heavy	new	old
Duhumbi	o-dzop	u-zan	(jaŋ-pu) ¹⁰	u-li	ə-k ^h ən	ə-mɛn
Khispi	(nak-pa)11	u-zan	(jaŋ-kan-ma)	u-li	ɔ-han	ə-mɛn
Khoina	a-dza²	a-zã-dy ~ a-nu	a-ruŋ-du	a-li	a-fɛn	a-mɛn
Jerigaon	a-dze?	a-nu	a-ruŋ-du	a-li	ə-hɛn	a-mɛn
Khoitam	a-d‡ap	a-z \tilde{a} ~ a-nu	a-ruŋ-du	a-li	a-fan	a-man
Rahung	a-dzap	a-zĩ ~ a-nu	a-ruŋ-du	a-li	a-hɛn	a-mɛn
Rupa	a-d‡ap	a-zĩ ~ a-nu	a-ruŋ-du	a-li	a-fan	a-man
Shergaon	a-dzap	(bə-dzap-pa ²¹² ~) a-nu	a-ruŋ-du	a-li	u-fan	a-man
Dikhyang Bugun	ə-viə	<i>a</i> -viə	ə-t ^h ow	ə-lai	ə-võ	ə-hɛk
Bulu Puroik	a-mjɛɛ	a-lao	a-təə	a-l ii	a-fɛN	a-mɛn

 Table 10
 Adjectives and their negated forms

Other inherited native adjectives, that do not have exact antonyms, can only be negated in a negated copular sentence with the positive attribute. This is, for example, the case with colour terms. The colour terms 'black' and 'white' all have distinctive forms in the Kho-Bwa languages, as is shown in Table 11.

	-	•	
variety	black	white	
Duhumbi	u-t¢ ^h am	jaŋ-kar ¹³	
Khispi	u-t¢ ^h am	jaŋ-kal	
Khoina	a-t¢ ^h ũ	a-zã	
Jerigaon	a-t¢ ^h õ	a-zã	
Khoitam	a-t¢ ^h ũ	a-zõ	
Rahung	a-t¢ ^h ũ	a-zõ	
Rupa	a-t¢ ^h ũ	a-zõ	
Shergaon	a-t¢ ^h õ	a-zõ	
Dikhyang Bugun	ə-sai	ə-mau	
Bulu Puroik	a-h ^j ɛN	a-rjuN	

 Table 11
 Example of adjectives without antonym

⁹ There are clearly two roots for 'bad' in the Western Kho-Bwa varieties, one deriving from Proto-Western Kho-Bwa ***a-n**^j**u** 'bad (not good)' and the other from Proto-Western Kho-Bwa ***a-z**^{jw}**an** 'poor, weak'.

¹⁰ This, and the Khispi form, are Tshangla loans.

¹¹ This is a Tawang Monpa loan.

¹³ This, and the Khispi form, are Bodish loans.

¹² This is the negated form of 'good', with a nominalising suffix $-pa^{7}$ and the negative prefix ba- replacing the adjective prefix a-.

But although 'heavy' is the antonym of 'light', 'black' is not the antonym, or a negated form of 'white'. Hence, to say that the attribute of a house is 'not black', or 'not blue', requires a negative copula, as the examples from Duhumbi, Rupa and Bulu Puroik in (17a) to (17f) show.

(17)					
a. Duhumbi:	wam		am	be?	
	house	blac	k	COP.E2	X
	'The house is black.'				
b.	wam	ut¢	am	baŋ	
	house	blac	k	NEG.C	OP.EXIS
	'The h	ouse is	not bla	ck.'	
c. Rupa:	gu	yam	gi	oho	Ø
	1SG	house	ТОР	blue	Ø
	'My h	ouse is	blue.' (.	Jacques	son 2015: 84)
d.	gu	yam	gi	oho	be ² e
	1SG	house	ТОР	blue	NEG.COP.EXIS
	'My h	ouse is	not blu	e.' (Jaco	juesson 2015: 84)
e. Bulu Puroik:	hɨN	ham	a.h ^j ɛN	J ba'i)
	near	house	black	COF	P.EXIS
	'This l	nouse is	s black.	' (cf. Li	eberherr 2017: 194)
f.	hɨN	ham	a.h ^j ɛN	J boo)
	near	house	black	NEC	G.COP.EQ
	'This house is not black.' (cf. Lieberherr 2017: 194)				

7.2 Derived Negative Adjectives

In most Kho-Bwa languages, adjectives that describe an attribute can be derived from intransitive verbs that have a property concept, such as 'to be warm', 'to be big', or 'to be broken'. In the Western Kho-Bwa languages derivation of adjectives from verbs most commonly takes place through nominalisation. The nominaliser is -ba or -pa, as the examples of Duhumbi, Khoitam, Shergaon, Rupa and Rahung show. These nominalised verbs func-

tioning as adjectives can then be negated with the standard negation marker ba-. But as the example of Khoitam shows, there is a second strategy in which a positive adjective becomes a negative adjective in a copular clause with a negative copula. Khoitam here mirrors the situation in Bulu Puroik, where, according to Lieberherr (2017: 104), derived adjectives, unlike inherited adjectives, can either be negated with the negative prefix ba- or with a negative copular predicate.

variety	verb root	positive adjective	negative adjective	gloss
Duhumbi	get 'break'	gɛt-ba 'broken'	ba-get-ba 'unbroken'	NEG-break-NOM
Khoitam	juŋ 'be ripe'	juŋ-ba ~ a-juŋ 'ripe'	ba -juŋ-ba ~ a-juŋ bɔ.ɔ ² 'unripe'	NEG-ripe-NOM ~ ripe NEG.COP.EXIS
Rahung	d¢εt 'break'	dze?-ba 'broken'	bə-dze?-ba 'unbroken'	NEG-break-NOM
Rupa	gat 'break'	gat-pa 'broken'	ba-gat-pa 'unbroken'	NEG-break-NOM
Shergaon	dzap 'be good'	a-dzap 'good'	ba- dzap-pa 'bad'	NEG-good-NOM
Puroik	min 'ripen'	a-min 'ripe'	ba -min ~ a.min ba.bɔɔ 'unripe'	NEG-ripe ~ ripe NEG. COP.EQ
Tshangla	p ^h ət	p ^h ət-pa	p ^h ət-pa ma -la	broken-NOM NEG. COP (†ma-p ^h ɔt-pa)

 Table 12
 Adjective derivation from verbs

Notably, as the last row in Table 12 shows, Tshangla follows the Puroik pattern of negating derived adjectives with a negative copula, and not with the negative prefix. In Tshangla, maphotpa would mean 'won't break', not 'unbroken', whereas maphotpa la would mean 'it did not break', not 'unbroken'.

Neither own data nor the available secondary sources (Dondrup 1990, Lander-Portnoy 2013, Barbora 2015) has any detailed description of adjective formation in Bugun. Dondrup (1990: 77–83) is the most extensive list of Bugun adjectives. A quick comparison shows no analogies with the Western Kho-Bwa and Puroik strategies of the formation of derived negative objectives. All Bugun adjectives are either unique lexical forms (phiyang 'long, tall', dun 'short'; niyap 'smooth', sũwa 'rough'; gong 'strong, hard; bright, clear', zĩya 'weak'), or their antonym formed in the manner as described in 7.1 (wie 'good, kind', a-wie 'bad, vile, worst'; khie 'beautiful', a-khia 'ugly'; gun-chit 'useful', gun-a-chit 'useless'), or simply the verb root (ru-um 'fear', rum 'afraid'; i 'die', i 'dead'; bing 'close v.', bing 'closed (adj.)'; shong 'be stale, rotten', shong 'wet, muddy' but e-shong 'rotten').

8. Concluding Remarks

All the Kho-Bwa varieties except Bugun have pre-verbal negation with a negative prefix that drives from Proto-Kho-Bwa ***ba-**, which displays a uniquely Kho-Bwa phonological innovation compared to the other Sino-Tibetan languages that have a negative marker with a bilabial nasal ma- or related forms. Although the Bugun negation prefix a- is distinct from that of the other Kho-Bwa varieties, the negation in Bugun is pre-verbal, like in the other Kho-Bwa varieties, and indeed in most Sino-Tibetan languages.

All the Western Kho-Bwa languages except Khoina have a dedicated prohibitive derived from Proto-Western Kho-Bwa $t^{h}a$ - with cognates in several Sino-Tibetan languages. Dedicated prohibitive markers are typologically not uncommon. However, Puroik and Khoina use the regular negative prefix for the prohibitive mood and the situation in Bugun is undetermined.

All Kho-Bwa varieties have negated copulas to express negation in non-verbal predicates. The negated equational copula in Khispi and Duhumbi is cognate with the negated equational copula in the Sartang and Sherdukpen varieties and the negated existential copula in the Sartang and Sherdukpen varieties is cognate with the negated equational copula in Puroik. The Khispi, Duhumbi and the Puroik negated existential copula do not have cognates in the other varieties. This indicates that both semantic change and innovation have occurred. Again, Bugun has a poorly described but at first sight distinct set of copulas.

Whereas the negative prefix precedes the verbal component of complex noun-verb predicates in all Kho-Bwa languages of which descriptions exist, there is a distinction in the way in which serial verb constructions are negated. The negation before the last verb in the verb string that we observe in Duhumbi is likely an influence from the Bodish languages or Tshangla, whereas the negation before the entire verbal string as seen in the other Kho-Bwa varieties appears to be the inherited structure.

The derived native adjectives, formed through nominalisation, can be negated with the negation prefix in Western Kho-Bwa languages. Derived adjectives in Puroik are not formed through nominalisation, but their negation can either be in copular clauses with a negative copula or with the negation prefix. This combination of two strategies is, however, also reported from Khoitam Sartang. A Bugun derived adjective appears to be simply the verb root from which it is derived: Information on negative derived adjectives is lacking. These typological features are presented in Table 13.

feature/variety14	Duh	Khi	Khn	Jer	Kht	Rah	Rup	Sher	Bug	Pur
negation marker *ba-	Y	Y	Y	Y	Y	Y	Y	Y	N, a-	Y
pre-verbal negation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
prohibitive marker *tha-	Y	Y	N, ba-	Y	Y	Y	Y	Y	?	N, ba-
negative equational copula * ba-ju	Y	Y	Y	Y	Y	Y	Y	Y	?	YNC
negative existential copula *ba-a?	YNC?	YNC?	Y	Y	Y	Y	Y	Y	YNC	YNC
negation of N-V predicates before the V	Y	Y	(Y)	(Y)	(Y)	(Y)	Y	(Y)	?	Y
negation in SVC before entire string	Ν	Ν	(Y)	(Y)	Y	(Y)	Y	(Y)	?	Y
unique negative adjectives	Y	Y	Y	Y	Y	Y	Y	Y	Y, most	Y
negation of adjectives through copular clauses	Y	Y	(Y)	(Y)	(Y)	(Y)	Y	(Y)	?	Y
negative derived adjectives with negative prefix	Y	Y	(Y)	(Y)	Y	Y	Y	Y	?	Y
negative derived adjectives in copular clauses	Ν	Ν	(Y)	(Y)	Y	(Y)	(Y)	(Y)	?	Y

 Table 13
 Comparison of negation strategies in Kho-Bwa, with the aberrant varieties in bold

Based on these typological observations, Bugun is the most data-deficient but also the most aberrant Kho-Bwa variety, having a distinct prefix for standard negation and the negation of adjectives and a negative copula that does not appear cognate with the other Kho-Bwa varieties. Bulu Puroik is in many respects similar to the Western Kho-Bwa varieties, except for its lack of a dedicated prohibitive marker, a feature strangely enough shared by the Western Kho-Bwa variety Khoina. Within the Western Kho-Bwa languages, the distinctiveness of the Khispi and Duhumbi negation strategies, such as the negation of serial verb constructions, can be explained through contact with the Bodish languages or Tshangla. This confirms the slightly distinct position of these two varieties versus the Sartang and Sherdukpen varieties. Hence, this comparison of Kho-Bwa negation strategies confirms the results of our earlier lexicostatistical study (Lieberherr and Bodt 2017).

Less can be concluded regarding the position of the Kho-Bwa cluster within the Sino-Tibetan language family: Indeed, except for Bugun, the Kho-Bwa negation strategies surveyed here are not much distinct from the majority of Sino-Tibetan languages. The main

¹⁴ Duh=Duhumbi, Khi=Khispi, Khn=Khoina, Jer=Jerigaon, Kht=Khoitam, Rah=Rahung, Rup=Rupa, She=Shergaon, Bug=Dikhyang Bugun, Pur=Bulu Puroik. Y=yes, N=no, YNC=yes, not cognate, (Y) is expected yes, ?=unknown. N=noun, V=verb, SVC=serial verb construction.

distinctive feature, the denasalised onset of the standard negation marker, is a phonological feature, not a morphological or syntactic one.

However, there are some caveats to this analysis. Detailed descriptions of the Sartang varieties, Bugun and the varieties of Puroik other than Bulu Puroik are lacking. Some of the negation strategies and particular features of negation, such as the rich system of negative copula and the asymmetric negation described from Duhumbi, could not be compared to the other Kho-Bwa varieties. In particular, data from Bugun on several negation strategies, such as the prohibitive, the negation of noun-verb predicates and the negation of serial verb constructions, are absent, making a comparison in these respects impossible. And finally, Bulu Puroik is the westernmost Puroik variety, spoken close to the Sartang varieties. In addition, three of the handful of Bulu Puroik speakers have mothers who were Sartang speakers (Lieberherr 2017: 274). We may, hence, suspect some level of linguistic influence of Sartang on Bulu Puroik. From this perspective, a comparison with negation strategies of other Puroik varieties spoken further East may provide a more balanced overview. Unfortunately, the available sources on these varieties of Puroik either lack sentences (Remsangpuia 2008, Soja 2009), lack glosses (Tayeng 1990), or are written in Chinese (Lǐ 2004), limiting their accessibility.

Hopefully, in the coming years more descriptions of the Kho-Bwa varieties, and in particular Sartang, Bugun and Puroik, will become available, which will enable further typological comparisons and phylogenetic studies based on them.

1.5.7		~~~~~	
1PL	first person plural	COP.EQ	equational copula
1SG	first person singular	COP.EXIS	existential copula
2SG	second person singular	EMPH	emphatic marker
3PS	third person plural	ERG	ergative
	subject pronominal	EXIST	existential
	marker	FUT	future
3SG	third person singular	GEN	genitive case marker
ADH	adhortative	IMP	imperative
AK	newly aquired	IND	indicative
	knowledge suffix	IPFV	imperfective
ALL	allative	ITT	iterative
ANA	anaphoric	LOC	locative case marker
ANT	until now	NEG	negative affix
BUR	Burmese	NEG.COP.EQ	negative equational
CHI	Chinese		copula
COP	copula		

Abbreviations

NEG.COP.EXIST	negative existential	PRMN	permansive
	copula	PROH	prohibitive
NEG.PRS	negative present	PRS	present
NGP	no gap in time future/	PST	past
	past	PT	Proto-Tani
NOM	nominaliser	PWKB	Proto-Western Kho-
OBJ	object		Bwa
OTIB	Old Tibetan	Q	question marker
PCN	Proto-Central-Naga	SE	stem extender
PFP	past tense	SEQ	sequential
PL	plural	ТОР	topicaliser
PP	Proto-Puroik	TSH	Tshangla
PRF	perfective		

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