Relativisation in Wobzi Khroskyabs and the integration of genitivisation

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Abstract

This paper focuses on the morphosyntax as well as the semantics of relativisation in Wobzi Khroskyabs, a Rgyalrongic language spoken in Sichuan, China. Different strategies of relativisation are presented, especially the nominalisation strategy. Wobzi Khroskyabs exhibits an innovative relativisation strategy with the genitive marker *=ji*, which is rarely found in other Rgyalrongic languages. Several hypotheses are put forward to account for the evolutionary pathway from genitivisation to relativisation, showing that genitive *=ji* probably followed an ergative pattern to enter the relativisation of core arguments.

Keywords: Relativisation; genitive; complementation; Khroskyabs; Wobzi; Tibeto-Burman; Trans-Himalayan languages; Sino-Tibetan; Morphosyntax; grammaticalisation

1 Background information

Khroskyabs is one of the Rgyalrongic languages[1] in the Trans-Himalayan (or Sino-Tibetan, see Owen-Smith and Hill 2014: 4) family, spoken in Rngaba Prefecture, Western Sichuan. With around 10,000 native speakers (Huang 2007), this language is surrounded by South-Western Mandarin Chinese, which is overwhelmingly dominant, and Amdo Tibetan, a highly prestigious language used for religious purposes. Therefore, even though Khroskyabs is fairly well preserved and transmitted to the younger generation, it is still under the threat of extinction.

Previous accounts on Khroskyabs mainly focus on morphology, such as Lai (2015) on its argument indexation, and Lai (2016) on its causativisation. However, a study on sentential constructions of this language is yet to see the light of day. This article is therefore dedicated to relative constructions of Wobzi, a Khroskyabs dialect spoken in the hamlet of *ʁâgu* (娃姑), Érè county (俄热乡).

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[1] Rgyalrongic languages include Rgyalrong languages (Situ, Japhug, Zbu and Tshobdun), Khroskyabs and Horpa-Stau.

In Section 2, I present fundamental typological features of Khroskyabs that are related to relativisation. Then in Section 3, an overview of relativisation in Wobzi is presented, focusing on the strategies, the places where the head noun can appear, and argument indexation within relative clauses. Section 4 deals with the most common way of relativisation in Wobzi Khroskyabs, the nominalised relative clauses. In Section 5, an interim summary is provided, before an account on correlative constructions in Section 6. Section 7 and Section 8 focus on a particular type of relative construction, marked with the genitive enclitic *=ji*. I will first present its distribution, illustrated with examples, and then propose hypotheses on the way that the genitive marker manages to become a relative marker in Wobzi Khroskyabs.

2 Typological features

In this section, I will present essential typological features of Wobzi Khroskyabs. The noun (Section 2.1) and the verb (Section 2.2) are the two fundamental word classes in Wobzi Khroskyabs, it is therefore important to know how they function in order to understand the behaviours of relative constructions. The structure of the noun phrase (Section 2.1.1) helps the reader to understand the relation between the head noun and the relative clause, and argument flagging (Section 2.1.2) identifies syntactic roles of arguments. Argument indexation (Section 2.2.1) is one of the most important features of the Wobzi verb that affects fundamentally the meaning of the construction in question. TAM categories (Section 2.2.2), especially modality, as I will analyse further below, are related to the P-relativisation in Wobzi Khroskyabs. Nominalisation, the main strategy of relativisation in this language which will be used through our paper, is presented in Section 2.3.

2.1 The noun phrase

2.1.1 Noun phrase structure

The basic noun structure in Wobzi Khroskyabs is illustrated in Table 1:

Table 1: Wobzi noun phrase structure

-3	-2	-1	0	1	2	3	4	5	6
GEN	DEM	NOM	Head Noun	ADJ	NUM+(CL)	DEF	NUMBER	CASE	TOP

GEN: noun phrase marked with genitive   NUM+(CL): numeral + (classifier)
DEM: demonstrative   NUMBER: grammatical number, dual or plural
NOM: nominal modifier(s)   CASE: case marker
ADJ: adjectival modifier(s)   TOP: topic marker

The examples in (1) illustrate elaborate noun phrases in bold. The example (1a) shows

a noun phrase in which the head noun, *χpæt*ʰ*ûŋ* 'sword', is preceded by a demonstrative marker, *câ*, and followed by the definite marker =*tə*, the instrumental =*ɣə* and a topic marker =*rə*. In (1b), the head noun is preceded by a relative clause, presented between brackets, and followed by the definite =*tə* and the dative =*k*ʰ*e*. The example (1c) shows a noun phrase marked by the genitive =*ji* before the head noun and the example (1d) an adjectival modifier right after the head noun.

(1) a. *ə̂çə* **câ** **χpæt**ʰ**ûŋ = tə = ɣə = rə** *< xíng tiān > = ji p*ʰ*á = njoni*
CONJ DEM sword = DEF = INSTR = TOP Xíngtiān = GEN   mountain = like
ʁû = tə   *n-u-rc*ʰ*ə̂ = si*
head = DEF PST-INV-split₂ = IFR
Then this sword broke Xíngtiān's mountain-like head open.

b. *ə̂snə*   *ə̂ji = ji*   *ə̂mo = ɣə* [*χtəlú = mnəɣ χtə̂ = pa*]
one.day 3PL = GEN mother = ERG hat = red   wear₁ = NMLZ:A
məlé = tə = kʰ**e**...
girl = DEF = DAT
One day, the mother said to the girl wearing a red hat...

c. *jʊŋsâ*   *ʁjû*   *rɟə̂lpə = ji ɬak*ʰ*ǔŋ = raɣ də́*
additionally bamboo king = GEN temple = one exist₁
Additionally, there is the Bamboo King's temple.

d. **jə̂ = ji**   *jáɣ sə̂-q*ʰ*ra*   *snâ*   *n-u-səsə́ = si*
3SG = GEN hand SUPERL-big suddenly PST-INV-wipe₂ = IFR
He wiped his huge hands.

2.1.2 Argument flagging

The ergative alignment in Wobzi Khroskyabs is not canonical. The S and the P are always unmarked. The ergative marker =*ɣə* only appears on the A in inverse and 3↔3 scenarios (see Section 2.2.1). Therefore, the scenarios 1→2, 1→3 and 2→3 prohibit ergative marking, despite the transitive construction.

(2) a. *ŋô(* = ɣə)   nû vdé-n*
1SG(* = ERG) 2SG see₂-2
I saw you.

b. *nû = ɣə   ŋô u-vd-áŋ*
2SG = ERG 1SG INV-see₂-1SG
You saw me.

Wobzi Khroskyabs presents a genitive-allative =*ji* with examples illustrated in (3).

(3) a. Genitive
tʂaçî = ji   kapə̂
Bkrashis = GEN book
Bkrashis' book

b. Allative

$\eta\hat{\alpha}=ji$ $r\eta am\acute{a}$ $p^h\acute{\partial}l=pa$ $k\partial\text{-}v\acute{\alpha}\text{-}n=ni$
1SG = ALL face.cream offer₁ = NMLZ:P IMP-bring₃-2 = IMP

Bring me a face cream as a gift!

Other markers include dative-ablative $=k^he$, comitative $=sce$, instrumental $=\gamma\partial$ (shared by the ergative), and various locative markers, $=t^ha$ (on the surface), $=g\partial$ (inside), $=vi$ (under), etc.

2.2 The verb

2.2.1 Argument indexation

Transitive and intransitive verbs are morphologically distinct in Wobzi Khroskyabs, as shown in Table 2 and 3.

Intransitive verbs index invariably the S. First person distinguishes the singular from the plural, with the suffixes *-ŋ* and *-j*; second person is not differentiated in number, with the suffix *-n*; third person is unmarked.

Table 2: Intransitive paradigme in Wobzi Khroskyabs

	Suffixes	Pronouns
1sg	*Σ-ŋ*	*ŋô*
1du	*Σ-j*	*ŋgə̂ne*
1pl	*Σ-j*	*gəɲɟî, ŋgî*
2sg	*Σ-n*	*nû*
2du	*Σ-n*	*nêne*
2pl	*Σ-n*	*nêɲɟi*
3sg	*Σ*	*ætə̂*
3du	*Σ*	*ætə̂ne*
3pl	*Σ*	*ætə̂ɟi*

In transitive constructions, the verb can index two arguments, the A and the P. Wobzi Khroskyabs exhibits a hierarchical alignment (Silverstein 1976), with first person ranking the highest, third person the lowest, and second person in between in the empathy hierarchy (DeLancey 1981), see (4).

(4)   Empathy hierarchy in Wobzi Khroskyabs
      First person > Second person > Third person

When a first or second person is involved, the suffix of the transitive verb indexes the P. When a third person is the P, it is the A which is indexed by the suffix. In inverse scenarios, that is, 2→1, 3→2 and 3→1, an additional prefix, the inverse marker *u-*, must

occur on the verb. In scenarios between two third persons, the inverse prefix occurs only when an orientational prefix[2] is present.

Table 3: Transitive paradigme in Wobzi Khroskyabs

		P			
		1sg	1pl	2	3
A	1sg			Σ-*n*	Σ-*ŋ*
	1pl			Σ-*n*	Σ-*j*
	2	*u-Σ-ŋ*	*u-Σ-j*		Σ-*n*
	3	*u-Σ-ŋ*	*u-Σ-j*	*u-Σ-n*	*(u)-Σ*

Two ditransitive constructions are attested, indirective and secundative, following the terms by Malchukov et al. (2010). In an indirective construction, the T (theme, the direct object in ditransitive constructions) is indexed by argument indexation as the P (T=P), while in a secundative construction, it is the R that is indexed as the P (R=P).

(5) a. *Indirective: kʰâ* 'to give'

    *nû=ɣə   ŋâ=kʰe   kapə̂ râɣ nə-kʰá-**n***

    2SG=ERG 1SG=DAT book one PST-give$_2$-2

    You gave me a book.

   b. *Secundative: ldzê* 'to teach'

    *nû=ɣə   ŋâ=kʰe   bódʑədə n-u-ldz-**áŋ***

    2SG=ERG 1SG=DAT Tibetan PST-INV-teach$_2$-1SG

    You taught me Tibetan.

2.2.2 Stem alternation and TAM Categories

Dynamic verbs in Wobzi distinguishes two tenses, non-past and past, while stative verbs distinguishes further past imperfective and perfective within the past tense.

A verb in Wobzi can present up to three stems, although most verbs have only two, and only a handful do not exhibit stem alternation. Stem 1 is the default stem, used for the non-past; Stem 2 is used in past and perfective situations and Stem 3 in irrealis situations. Four major stem alternation strategies are attested, tone alternation, rime alternation, aspiration alternation and suppletion, summarised in Table 4.

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[2]Wobzi Khroskyabs, as well as the other Rgyalrongic languages, presents a series of orientational prefixes indicating the direction of the action denoted by the verb: *æ-* 'upwards', *næ-* 'downwards', *kə-* 'upstream', *nə-* 'downstream', *læ-* 'towards the left bank', *və-* 'towards the right bank', *rə-* 'unknown direction'. Orientational prefixes are also used as TAME markers for most of the verbs.

Table 4: Wobzi Stem Alternation

Stem 1	Stem 2	Stem 3	Gloss
ntsʰə̂	N/A	N/A	to think
srî	*srí* (tone)	N/A	to look
rtsʰæ̂	*rtsʰî* (rime)	N/A	to try, to challenge
tô	*tʰó* (aspiration)	N/A	to arrive
və̂	*ɕə̂* (suppletion)	*ɕæ̂* (rime)	to go

Alternated stems alone are usually not sufficient to form inflected verbs expressing different TAM categories. Past and perfective forms, for example, usually take an orientational prefix, which is mostly lexically determined. As in the examples in (6), *næ-* 'downwards' is lexically assigned to the verb *vî* 'to do' in the past tense in (6a), and *nə-* 'downstream' to the stative verb *mpʰjæ̂r* 'to be beautiful' as a perfective marker.

(6) a. *ætə̂=joni skavlê **næ-v-áŋ** zdár*
        DEM=like drudgery PST-do$_2$-1SG have.experience
        I did such a drudgery.

     b. *ʁɟɥæ̂=rə **nə-mpʰjæ̂r**=pa rə-ŋǽ*
        fox=TOP PFV-be.beautiful$_2$=NMLZ NPST-be$_1$
        The fox has become beautiful.

2.2.3 Finiteness

Unlike Rgyalrong languages, in which finiteness plays an important role in relativisation (Jacques 2016b, Sun 2006), finiteness is not essential to Khroskyabs relativisation. As Lai (2017) states, the only recognisable non-finite form in Wobzi Khroskyabs is the infinitive, which can be identified under certain conditions. The most common way to identify an infinitive is through a Stem 1 transitive verb without person indices, meanwhile free from inverse marking on the orientational prefix, see Example (7):

(7) *tʰæŋə̂m=ska smæ̂n **kə-vî**=pa mí*
     be.ill$_1$=NMLZ:time medicine INF-do$_1$=NMLZ:A not.exist$_1$
     When ill, there is no one to take care of them.

If a transitive verb is finite and has an orientational prefix, but lacks a person suffix, it must be conjugated in third person, which requires an obligatory inverse prefix, otherwise, the verb is non-finite. For instance, Example (8) is also grammatical with the same meaning compared to Example (7), with the only difference being that the verb form *k-u-vî* (NPST-INV-do$_1$) is finite, with the inverse marker present.

(8) *tʰæŋə̂m=ska smæ̂n **k-u-vî**=pa mí*
     be.ill$_1$=NMLZ:time medicine NPST-INV-do$_1$=NMLZ:A not.exist$_1$
     When ill, there is no one to take care of them.

2.3 Nominalisation

Nominalisation in Wobzi can be achieved by various means: zero derivation, tone alternation, prefixation and encliticisation.

In zero derivation, the derived nominal stays formally unchanged compared to the base verb:

(9) *rŋâ* 'to hunt' > *rŋâ* 'hunting'.

This strategy usually derives action nouns from corresponding verbs.

Some high-falling toned verbs derive corresponding nominals through shifting the tone into a high one, and the reverse tone alternation is not attested:

(10) a. *dzî* 'to eat' > *dzí* 'food'
      b. *tʰê* 'to drink' > *tʰé* 'food, drink'
      c. *fsə̂* 'to sharpen' > *fsə́* 'iron forging'.

Prefixation is rare but not unattested, see for instance Example (11).

(11) *s-pʰə́m* 'lid' < *pʰə́m* 'to cover'.

The prefix *s-* is unproductive and is cognate to an oblique nominaliser from a Sino-Tibetan perspective: *sɤ-* in Rgyalrong (Japhug): *sɤ-cɯ* (NMLZ:O-open) 'key (instrument for opening)' (Jacques 2008: 46); *s-* in Tibetan: སྦུད *sbud* 'bellows' from འབུད *'bud* 'to blow'; **s-* in Old Chinese, 朔 **s-ŋrak* 'first day of month (when the moon changes from waning to waxing)' from 屰 **ŋrak* 'to go against'[3].

The most common way is through nominalising enclitics (hereafter nominalisers) of different semantic functions, applied to verb forms to derive corresponding nominal forms.

Table 5: Nominalising enclitics

Enclitic	Gloss
=*pa*, =*ŋkʰə*/ =*mkʰə*	P/T (realis), S/A
=*spi*	P/T (irrealis)
=*ska*, =*luŋkʰa*	Time
=*ri*/ =*re*	Oblique (place, instrument, R)

The nominalisers listed above can be used for both lexical and clausal nominalisations. The difference between lexical and clausal nominalisation is discussed in Shibatani (2009: 191–194), Givón (1990: 498–501) and Genetti et al. (2008: 98–99). Lexical nominalisation in Wobzi is characterised by a formally unconjugated Stem 1 verb, with potential semantic idiosyncrasy. *pʰa-dʑê-ri* (mountain-hold₁-NMLZ:instrument), literally meaning the instrument to own the mountain, is now used to translate the Chinese term

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[3]I follow Baxter and Sagart (2014)'s reconstruction for Old Chinese.

镇山之宝 *zhèn shān zhī bǎo*, referring to the most important treasure in the mountain. Clausal nominalisation does not identify the entity or event denoted by the clause itself, lacking specification (Shibatani 2009: 192). Clausal nominalisation plays an important role in complex sentential constructions, including the relatives, to be discussed in this paper.

3   Overview of Wobzi Relativisation

3.1   Which arguments to relativise

Keenan and Comrie (1977: 66) put forward the NOUN PHRASE ACCESSIBILITY HIERARCHY based on some 50 typologically distinct languages around the world, predicting the degrees of accessibility of different arguments to relativisation. Example (12) shows the ranking of the arguments, from the most accessible to the least.

(12)   *Accessibility Hierarchy*
       SUBJECT > DIRECT OBJECT > INDIRECT OBJECT > OBLIQUE > GENITIVE > OBJECT OF COMPARISON

As far as what Keenan and Comrie (1977) call the primary relativising strategy is concerned, the accessibility of a lower-ranking type of arguments implies that any higher-ranking type is accessible to relativisation as well. For instance, if a language can relativise the object of comparison, ranking as the least accessible, it must be able to relativise all the other types in the Hierarchy.

The most common strategy in Wobzi, gapping through nominalisation (see Section 3.2), does not contradict the Accessibility Hierarchy: except the object of comparison, all the other types of arguments in the Hierarchy are accessible to relativisation, including the S of intransitive constructions and the A in transitive/ditransitive ones, the P in transitive constructions and the T in ditransitive constructions, oblique arguments such as the place and instrument adjuncts as well as time adjuncts. We will also see in this paper that not all strategies observed in the language follow entirely the Hierarchy, for instance, the one with the genitive =*ji*.

3.2   Relativising strategies

Of the four relativising strategies observed in Comrie and Kuteva (2005)[4], three are attested in Wobzi Khroskyabs, that is, non-reduction, pronoun retention and gapping, summarised in Table 6.

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[4]Relative pronoun, non-reduction, pronoun retention and gapping.

Table 6: Relativising strategies

Strategy	Existence in Wobzi
Relative pronoun	✗
Non-reduction	✓
Pronoun retention	✓
Gapping	✓

GAPPING is the most usual way to relativise an argument in Wobzi. The gap is created with the clausal nominalisation of the relative clause. The gapped function is indicated by the nominalising enclitic (see Table 5) used in the relative clause. As shown in Example (13), the head nouns are not repeated in the relative clause, creating a gap in the position they should have been.

(13) a. *kætɕə́=χtɕʰər=ji*   [$_i$ *nə-ré=pa*]   *jdə̂$_i$=zæresitə*
          pickled.vegetable=sour=GEN ∅ PFV-be.left$_2$=NMLZ:S water=and
          <cù> jdə̂ kə-dú jáɣ
          vinegar water INF-pour$_1$ can$_1$
          The liquid that is left by making the pickled vegetable can be poured away.

      b. *sæpʰô=rə næ̂-ŋəɣ*   [$_i$ *dzî=spí*]   *ɕâŋtʋŋ$_i$=rə næ̂-ŋəɣ...*
          tree=TOP IPFV.PST.Q-be$_2$ ∅ eat$_1$=NMLZ:P.IRR fruit=TOP IPFV.Q-be$_2$
          Whatever it was, trees or edible fruits...

The NON-REDUCTION STRATEGY is used in internally-headed relative clauses, with the head noun present within the relative clause itself and, the PRONOUN RETENTION STRATEGY can sometimes be found in correlative constructions. Example (14a) shows an internally-headed relative with the non-reduction strategy, in which the head noun occurs in the relative clause; Example (14b) presents a correlative construction, in which a resumptive pronoun, *ætə̂*, occurs in the main clause, hence the PRONOUN RETENTION STRATEGY.

(14) a. Non-reduction
          [*ŋô ɲadí$_{head}$ vd-áŋ=ŋkʰə*]=*tə=ji*   *æ̂po=tə tʂaɕî ŋæ̂*
          1SG child   see$_2$-1SG=NMLZ:P=DEF=GEN father=DEF Bkrashis be$_1$
          The father of the child I saw is Bkrashis.

      b. Pronoun retention
          æ̂ɕə <Jiǔtiān Xuánnǚ>   [*ŋə̂tə rə-vî-n*] *ætə̂ r-u-ví=si*
          CONJ Goddess.of.the.Nine.Skies which IMP-do$_1$-2 DEM PST-INV-do$_2$=IFR
          He did what the Goddess of the Nine Skies told him to (literally: What the Goddess of the Nine Skies asked him to do, he did it).

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3.3 Place of the head noun

The head noun of a relative construction in Wobzi can occur either inside or outside the relative clause. When it is outside, it can either precede or follow the relative clause.

3.3.1 Externally-headed relative

More often than not, the head noun occurs outside the relative clause in Wobzi Khroskyabs. Both prenominal and postnominal head-external relatives are attested, as shown in (15), however, prenominal relatives are by far the dominant type.

(15) a. Prenominal

[$_i$ *χtəlú mnə̂ɣ χtə́=pa*]   ***məlé***$_i$ *k-u-smê=si*
∅ hat   red   wear(hat)$_1$=NMLZ:A girl   PST-INV-name$_2$=IFR
They called her the girl who wore a red hat.

b. Postnominal

ɲadí=tə$_i$ [$_i$ *pâɣɕu fkə̂=ŋk^{h}ə*]=tə   *læ-ɕə̂=si*
child=DEF ∅ pear   steal$_1$=NMLZ:A=DEF PST-go$_2$=IFR
The child who stole the pears walked away.

c. Postnominal

vɟú=ɟi$_1$ [$_i$ *k-u-ví=ŋk^{h}ə*] =tə=ɟi   *pá rgæməmə̂=si*
man=PL ∅ PST-INV-do$_1$=NMLZ:P=DEF=PL all be.naked$_1$=IFR
The humans that she made were all naked.

The postnominal relative clause in (15b) is unambiguous, however Example 15c can be alternatively interpreted as a head-internal relative (we will see ambiguous constructions in 19b and 21 in Section 3.3.3). In (15b), the argument relativised is a third person A, which, in a normal clause, must be followed by an ergative marker, as shown in (16).

(16) *ɲadí=tə=ɣə   pâɣɕu fkə̂*
child=DEF=ERG pear   steal$_1$
The child steals pears.

3.3.2 Headless relative

Headless relatives are the most common type found in Wobzi, illustrated in (17). The relative clause itself is identical to head-external relatives, however the head noun is omitted in the main clause.

(17) a. *æ̂ɕə* [*bótpa=ɟi=ɣə* $_i$ *sə̂-s-c^{h}æ=spi*] $_i$*=tə*   *ŋǽ*
CONJ Tibetan=PL=ERG ∅ SUPERL-CAUS-be.big$_1$=NMLZ:P.IRR ∅=DEF be$_1$
This is something the Tibetans admire the most.

b. [$_i$ *lotsâ*   *ví=pa*] $_i$*=ɣə* *dʑədə́ tɕ^{h}é*   *n-u-zɟə́r*
∅ translation do$_1$=NMLZ:A ∅=ERG letter religion PST-INV-translate$_2$
The interpreter (he who translates) translated the Buddhist texts.

3.3.3 Internally-headed relative

Head-internal relatives are rare in Wobzi, unlike the case in Japhug, where most S-relativisations are internally-headed (Jacques 2016b).

(18) a. [ʁɟvæ̂=tə=ɣə **semtɕǽn kʰakʰâ=ɟi**$_{head}$
          fox=DEF=ERG animal   other=PL
          k-u-rdú=si=ŋkʰə]=ɟi=tə=ɣə   *nû sâ̂ ŋǽ-n u-râ̂*
          PST-INV-meet$_2$=IFR=NMLZ:P=PL=DEF=ERG 2SG who be$_1$-2 PST.INV-say$_2$
          The other animals that he met asked, "Who are you?"

   b. [*jê=ɣə   vɟú u-tʰó=ŋkʰə=tə=ɟí]=də*
       3SG=ERG man PST.INV-build$_2$=NMLZ:P=DEF=PL=also
       næ-mæ-ndʐá=si
       IPFV.PST-NEG$_2$-be.identical$_2$=IFR
       The men that she created were not identical as well.

The internal heads of the examples in (18) are the P's of the predicate of the relative clause, while internally-headed relatives also occur with the relativisation of the ditransitive T (although it can be seen as a variant of P) and, ambiguously, the intransitive S.

(19) a. *dʐomá r-â- vde-n*   *ɕə* [*câ=ji   dʑá̂ɣ <xīng qī> ŋâ=kʰe*
          Sgrolma NPST-IRR-see$_1$-2 CONJ 3SG=GEN before week   1SG=ABL
          kapâ̂$_{head}$ *n-u-rɲí]=tə*   *ŋâ=kʰe   n-u-j-áŋ*
          book   PST-INV-borrow$_2$=DEF 1SG=DAT IMP-INV-return$_1$-1SG
          æ-rǽ-n=ni
          IMP-say$_1$-2=ASSRT
          If you see Sgrolma, tell her to return the book that she borrowed from me last week.
   b. [***semtɕǽn***$_{head}$ *sâ=tʰa   ndʐəvâ=pa]   u-sqʰlí*
       animal   earth=LOC walk$_1$=NMLZ:S PST.INV-let.out$_2$
       She created animals that walked on the earth.

Example (19b), however, can be alternatively analysed as a postnominal externally-headed relative, with the structure below:

(20) ***semtɕǽn***$_i$ [$_i$ *sâ=tʰa   ndʐəvâ=pā]   u-sqʰlí*
      animal   ∅ earth=LOC walk$_1$=NMLZ:S PST.INV-let.out$_2$
      She created animals that walked on the earth.

The ambiguity is also found in P-internal relatives without the A of the predicate of the relative clause being overt, as in (21). Notice the difference in meaning between (21a) and (21b).

(21) a. Head-internal interpretation

[ŋâ=kʰe **tsʰægí**ₕₑₐd kə-çɲçâ-n=ŋkʰə]=tə   jə̂m   rə-ndzə̂-n
1SG=ABL clothes   PST-take.back₁-2=NMLZ:P=DEF home IMP-bring₃-2
Take the clothes that you took back from me home.

   b. Head-external interpretation
ŋâ=kʰe   **tsʰægí**ᵢ [ᵢ kə-çɲçâ-n=ŋkʰə]=tə   jə̂m   rə-ndzə̂-n
1SG=DAT clothes ∅ PST-take.back₁-2=NMLZ:P=DEF home IMP-bring₃-2
Bring me home the clothes that you took back.

As Mazaudon (1978: 402) notices, in Tibetan as well, if the head noun is an intransitive S or a transitive P (A unexpressed), it is impossible to determine the type of the relative clause, a head-internal one or a postnominal one.

Other Trans-Himalayan languages that exhibit head internal relatives seem also to restrict the possible functions of the head noun to a certain set. In Mongsen Ao, head internal relatives are restricted to a *notional core argument* of a bivalent verb, which is, in the example provided by Coupe (2017), a T argument:

(22) *nì kàʔ* [[*ā-tī   nā **ā-sə̄**   à   ə̄n-əɹ   ɹà-pàʔ*]   *pʉ̄*]
    1SG also VOC-elder.sibling AGT NRL-shawl one take-SEQ come-NMLZ PROX
    mùk-∅
    wrap-PST
    I also wore this shawl that Elder Sister brought.

In Belhare (Van Valin and LaPolla 1997: 304; Bickel 2004), amongst the rare examples of head-internal relatives, the distribution of arguments that can be relativised are exactly the same as in Wobzi Khroskyabs, restricted to S, P and T, as shown in (23).

(23) a. [**maʔi**ₕₑₐd *khiu-ʔ-na*]   *misen   niu-t-u-ga   i*
         human   quarrel-NPST-DET acquaintance know-NPST-3sgU-2sgA Q
         Do you know the person who is quarrelling?
   b. [*ŋka asen   **pepar**ₕₑₐd in-u-ŋŋ-ha*]   mann-har-e
      1SG yesterday cigarettes buy-3sgU-1sgA-NMLZ finish-TEL-PST
      The cigarettes that I bought yesterday are used up.
   c. [*asenle **paisa**ₕₑₐd mai-khut-piu-sa-ha*]   *n-chitt-he*
      before money   1sgU-steal-BEN-TRANS.PERF.-NMLZ 3nsgA-find-PST
      They found the money that he stole from me.

In Tibetan, similarly, as DeLancey (1999: 242) points out, pure internally-headed relatives are especially common with the relativisation of objects.

Works on internally-headed relatives such as Williamson (1987: 169) and Basilico (1996: 526), etc. show that definite marking is generally forbidden on the head of internally-headed relative clauses, while indefinite marking is not.

Williamson (1987: 171) cites the Lakhota definite marker *ki* cannot be added to the head within an internally-headed relative:

(24) a. [[*Mary* [*owi̧ža wa̧*] *kağe*] *ki/cha/k'ų*   *he* *ophewatų*
        Mary   quilt   one make DEF₁/un/DEF₂ DEM buy.1SG
        I bought the quilt that Mary made.

    b. *[[*Mary* [*owi̧ža ki̧*] *kağe*] *ki*   *he* *ophewatų*
        Mary   quilt   DEF make DEF₁ DEM buy.1SG

This constraint is true for Wobzi Khroskyabs. The definite marker =*tə* cannot appear on the head of an internally-headed relative clause. To illustrate this constraint, we may, for instance, modify the sentence in (18b), as shown in (25). The modified example (25a) is ungrammatical, with the head noun *vɟú* 'man' marked by the definite marker =*tə*. That an internal head cannot take definite marking does not mean it is not semantically definite, on the contrary, many internal heads are semantically definite, including our original example (18b). If the head noun is semantically indefinite, one is free to add an indefinite marker such as *râɣ* 'one' behind it, as in (25b).

(25) a. *[*jê*=*ɣə* ***vɟú***=*tə_head* *u-tʰó*=*ŋkʰə*]=*tə*=*ɟi*=*də*
        3SG=ERG man=DEF   PST.INV-build₂=NMLZ:P₂=DEF=PL=also
        næ-mæ-ndz̧á=*si*
        IPFV.PST-NEG₂-be.identical₂=IFR

    b. [*jê*=*ɣə* ***vɟú*** ***râɣ_head*** *u-tʰó*=*ŋkʰə*]=*də*
        3SG=ERG man one   PST.INV-build₂=NMLZ:P₂=DEF=PL=also
        næ-mæ-ndz̧á=*si*
        IPFV.PST-NEG₂-be.identical₂=IFR
        A man that she made was also not identical.

3.4   Indexation in relative clauses

In externally-headed relatives that relativise core arguments as well as the R of ditransitive constructions, the gap left in the relative clause is considered as the third person, no matter whatsoever person the head noun refers to.

(26) *S*

    a. *ŋô* [*snə́ɣ*   ₍ᵢ₎ *mbærkʰæ̂m nə-vâ*=*pa*]   *bótpa_i* *næ-ŋ-ûŋ*
        1SG yesterday ∅ 'Barkhams PST-go₂=NMLZ:S Tibetan IPFV.PST-be₂-1SG
        I am the Tibetan that went to 'Barkhams yesterday.

    b. *ŋô* [*snə́ɣ*   ₍ᵢ₎ *mbærkʰæ̂m nə-v-ûŋ*=*pa*]   *bótpa_i* *næ-ŋ-ûŋ*
        1SG yesterday ∅ 'Barkhams PST-go₂-1SG=NMLZ:S Tibetan IPFV.PST-be₂-1SG

In Example (26b), even though the S of the matrix clause is 1st person singular, it is ungrammatical, because the verb in the relative clause takes the 1SG ending.

(27) *A*

13

a. [*snə́ɣ*   *nû* ~i~   *u-vdé-n=pa*]   *rɟâ*~i~*=tə*   *ŋô nɑ̃-ŋ-ûŋ*
   yesterday 2SG ∅ INV-see$_2$-2=NMLZ:P Chinese=DEF 1SG IPFV.PST-be$_2$-1SG
   I was the Chinese that saw you yesterday.

b. [**snə́ɣ*   *nû* ~i~   *vdé-n=pa*]   *rɟâ*~i~*=tə*   *ŋô nɑ̃-ŋ-ûŋ*
   yesterday 2SG ∅ see$_2$-2=NMLZ:P Chinese=DEF 1SG IPFV.PST-be$_2$-1SG

The obligatory use of the inverse marking in (27a) shows clearly that the gap must be 3rd person. Since the S of the matrix clause is 1st person singular, that ranks higher than 2nd person singular in the empathy hierarchy, the inverse should not have appeared in this 1→2 scenario.

Examples with P and R relativisations are shown in (28) and (29).

(28) *P*

a. *ŋô* [*snaɣlî=ɣə* ~i~   *n-u-sp^{h}rí=pa*]   ~i~ *ŋ-áŋ*
   1SG moon=ERG ∅ PST-INV-send$_2$=NMLZ:P ∅ be$_1$-1SG
   I am someone sent by the moon.

b. **ŋô* [*snaɣlî=ɣə* ~i~   *n-u-sp^{h}r-áŋ=pa*]   ~i~ *ŋ-áŋ*
   1SG moon=ERG ∅ PST-INV-send$_2$-1SG=NMLZ:P ∅ be$_1$-1SG

(29) *R*

a. [*nû bódʑədə* ~i~   *ldzê-n=rí*]   *vɟú*~i~*=tə*   *ŋô rə-ŋ-áŋ*
   2SG Tibetan ∅ teach$_1$-2=NMLZ:Obl person=DEF 1SG NPST-be$_1$-1SG
   I am the one to whom you teach Tibetan.

b. **[nû=ɣə bódʑədə* ~i~   *r-u-ldz-âŋ=rí*]   *vɟú*~i~*=tə*   *ŋô*
   2SG=ERG Tibetan ∅ NPST-INV-teach$_1$-2=NMLZ:Obl person=DEF 1SG
   rə-ŋ-áŋ
   NPST-be$_1$-1SG

4 Nominalised relative clause

Except for a few languages that seem to have developed European-like relative pronouns (Mongsen Ao, for instance, see Coupe 2007: 134), nominalisation is a typical way to form relative clauses in Trans-Himalayan, which is either studied for individual languages, such as Sun and Lin (2007), Sun (2006), Jacques (2016b) on Rgyalrongic languages, Bickel (1999) and Lahaussois (2002) on Kiranti languages, LaPolla (2008) on Rawang, Matisoff (1972) on Lahu, or in typological accounts such as Genetti et al. (2008) presenting data from five Tibeto-Burman branches. Nominalisation as a relativising device has therefore been noticed by many researchers, Bickel (1999) coins the term STANDARD SINO-TIBETAN NOMINALISATION, and DeLancey (2002) calls it RELATIVISATION-NOMINALISATION SYNCRETISM.

Wobzi Khroskyabs is no exception to this generality. Nominalisation is undoubtedly the most frequent way of relativisation. In Table 5 in Section 2.3, I have already listed the nominalisers used for relative clauses, and in this section, we will have a close look at some examples and uses, focusing on head-external relatives.

4.1 S, A and possessor

The relativisation of S, A and possessor invariably makes use of the markers =*pa* and =*ŋkʰə*. The difference between the two markers are subtle and ignorable, they are almost always interchangeable.

The sentences in Example (30) show the relativisation of S. In (30a), we have an S-relativisation with the marker =*pa*, and in (30b) with the marker =*ŋkʰə*. Note that the finiteness of the bare verb form *ɣə̂r* 'to help' in (30a) is impossible to determine, while the form *nə-tʰó* (PST-arrive₂) is clearly finite, with the Stem 2 of the verb.

(30) *S-relativisation*

    a. =*pa*

        jê=ji   [*vucʰâ=tʰa*   ᵢ *ɣə̂r=pa*]   *næ-ŋə̂ɣ=si*
        3SG=GEN lower.part=LOC ∅ help₁=NMLZ:S IPFV.PST-be₂=IFR

        It was his servant (literally: It was someone under his reign that assisted him).

    b. =*ŋkʰə*

        [ᵢ *ɽɟə̂gær nə-tʰó=ŋkʰə*]   *mkʰə̂̂=paᵢ*   *ɽɟə̂gær=ji*
        ∅ India   PST-arrive₂=NMLZ:S be.expert₁=NMLZ:S India=GEN

        pə̂ntṣəta=ji=tə=ɣə   *ə̂vaɣ* *ə̂mɲi* *mkʰə̂̂*   *râɣ=tə* *nê̂ŋɟi*
        Paṇḍita=PL=DEF=ERG INTERJ like.this be.expert₁ one=DEF 2PL

        næ-ɴqʰarŋâ-n=si u-râ̂=pa
        PST-expel₂-2=IFR PST.INV-say₂=NMLZ

        The noblemen, the Paṇḍitāḥs that came from India said, "Helas! You expelled such an intelligent person!"

The examples in (31) show the relativisation of the A in Wobzi. The structure is similar to that of the S.

(31) *A-relativisation*

    a. =*pa*

        çsə̂rpa ə̂mo=tə   [ᵢ <*píng guǒ*> *nsɣə́=pa*]   *æmə̂cʰæᵢ*
        be.new₁ mother=DEF ∅ apple   sell₁=NMLZ:A old.lady

        æ-ʁjæví=si
        PST-pretend₂=IFR

        The step mother disguised herself as an old woman that sold apples.

    b. =*ŋkʰə*

        [ᵢ *nəjê sâ̂-æ-scʰə́scʰæ-n=ŋkʰə*]   ᵢ=*tə=ji*   *vɟú=tə=ji*
        ∅ 2SG PROG-NPST-flatter₁NMLZ:A ∅=DEF=PL man=DEF=PL

        r-â-vji   *ætâ̂=ji=ɣə* *nû* *â-dʑədʑə-n=tsʰi*
        NPST-JUSS-come₁ 3SG=PL=ERG 2SG NPST.JUSS-pull₂-2=IFR

        Just let those who like to flatter you the most come and pull you out!

The possessor, ranked low in the Accessibility Hierarchy and often considered a peripheral argument, makes use of the same markers for the S and the A when relativised, as shown in (32). As Sun (2006) points out for Tshobdun, which shows the same phenomenon, possessor relativisation with the same marker for the S or the A may be related to possessor raising. Possessor raising is attested only in constructions of which the possessee is physically or mentally related to the possessor (e.g. body parts, sentiments), requiring that the verb index the possessor instead of the possessee, which should have been indexed (Lai 2015).

(32) *Possessor relativisation*

    a. *vʝú$_i$* [$_i$ *mtɕʰɔ́ sə̂-ʁbaɣ=ŋkʰə*] = *tə*   *ʁndɛ̂=spi*
        man ∅ mouth SUPERL-be.many$_1$=NMLZ:Poss=DEF be.popular$_1$=NMLZ
        mí
        not.exist$_1$
        People who are verbose are not popular (literally: people whose mouths are many are not popular).

    b. *cə̂* [$_i$ *gáv ə̂-lo mə-dzâɣ=ŋkʰə*]   *kətá$_i$ =tə rə-baχtɕʰâ*
        DEM ∅ leg one-CL NEG$_1$-exist$_1$=NMLS dog=DEF NPST-be.poor$_1$
        The dog that lost one of its legs is so poor (literally: the dog of which one of the legs is not there is so poor).

4.2 P

The relativisation of the P in Wobzi Khroskyabs shows different patterns from Rgyalrong languages. Modality plays the determinative role in the choice of the nominaliser. The nominaliser =*spi* is used in irrealis, more precisely, deontic or epistemic modalities, and =*pa* or =*ŋkʰə* are used in all realis modalities [5].

    The examples in (33) illustrate the usage of the nominaliser =*spi*.

    Morphology-wise, the nominaliser =*spi* marks verb forms in Stem 1, and is the only relativising nominaliser attested to be attached to explicitly marked infinitive forms. The bare verbs in (33a) and (33b) are uncertain in terms of finiteness; the verb form *l-u-stî* (NPST-INV-put$_1$) is finite, given the presence of the inverse marker *u-*; the example (33d) shows an infinitive verb form marked by the nominaliser =*spi*, *kə-tsʰə̂* (INF-hit$_1$), because the inverse marker *u-* is not employed in the presence of an orientational prefix *kə-*.

    Modality-wise, the use of =*spi* adds to the relative clause a deontic or epistemic flavour, and is better translated in English with "thing to do", "that ought to..." or "that should...", etc. Example (33a) indicates a participant-internal possibility (van der Auwera and Plungian 1998: 80) that the fruits are edible; in (33b), the marker =*spi* conveys a deontic meaning in that the thing in question should be used when building a house; in Example (33c), the relative construction can be either be interpreted as deontic, "something that Tibetans ought to offer", or epistemic, " something that Tibetans may or would offer". The same case is found in (33d), which allows both irrealis readings.

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[5]I owe this idea to Gong Xun.

(33) =*spi*

    a. [_i *dzî=spî*]   *ɕâŋtʋŋ_i=rə nɐ̂-ŋəɣ*

        ∅ eat$_1$=NMLZ:P.IRR fruit=TOP IPFV.PST.Q-be$_2$

        Whether they are edible fruits (literally: whether they are fruits to eat)

    b. *jɜ̂m k-u-sɣá=ska*   [_i *ntɕʰé=spî*]   _i *rə-ŋɐ́ɕ*

        house NPST-INV-build$_1$=NMLZ:time ∅ use$_1$=NMLZ:P.IRR ∅ NPST-be$_1$

        This is something to use when building a house.

    c. *baɣváɣ   bótpa=ɟi=ɣə   ŋgəɟîji ɕâχpə~χpa   mbrɐrka~rku*

        barley.wine Tibetan=PL=ERG CONJ friend~GENERIC relative~GENERIC

        rə-tô=ska   [_i *l-u-stî=spî*]   *râɣ ŋɐ́ɕ*

        NPST-arrive$_1$=NMLZ:Time ∅ NPST-INV-put$_1$=NMLZ:P.IRR one be$_1$

        The Tibetan barley wine is something that Tibetans would offer to their friends and relatives when they come to visit.

    d. *tɕʰɐ̂lʋŋ=tə vlâma=ɟi*   [_i *kə-tsʰɜ̂=spî*]   _i*=gə=tə   rə-ŋɐ́ɕ*

        cymbal=DEF big.monk=PL ∅ INF-hit$_1$=NMLZ:P.IRR ∅=CL=DEF NPST-be$_1$

        The cymbal is something for the big monks to play.

When it comes to the realis modality, the P is relativised in the same way as the S, the A and the possessor, with the markers =*pa* or =*ŋkʰə*, examples are shown in (34). The verb form of the relative clause can be in either Stem 1, as in (34a), or Stem 2, as in (34b) and (34c).

(34) =*pa*/=*ŋkʰə*

    a. *cɜ̂ kapɜ̂=tə=gə*   [*ŋô* _i *nd-âŋ=ŋkʰə*]   <*wén zhāng*>_i

        DEM book=DEF=LOC 1SG ∅ like$_1$-1SG=NMLZ:P article

        ɜ̂-lo=də   mí

        one-CL=also not.exist$_1$

        There is not a single article that I like in this book.

    b. *ɜ̂skʰə* [*ŋgîji   ʐɜ̂ʑo=ɣə* _i *u-cʰó=ŋkʰə*]   _i*=tə=gə*

        now 1PL.GEN uncle=ERG ∅ PST.INV-open$_2$=NMLZ:P ∅=DEF=LOC

        ntɕû=ɕi   ɲɟê

        work$_1$=CONJ EXIST$_1$

        Now, he works in the shop opened by my uncle.

    c. *ŋô* [*snaɣlî=ɣə* _i *n-u-spʰrí=pa*]   _i *ŋ-áŋ*

        1SG moon=ERG ∅ PST-INV-send$_2$=NMLZ:P ∅ be$_1$-1SG

        I am someone sent by the moon.

Since the relativisation of the P in realis situations shares the same markers with that of the S and the A, one may concern about ambiguity that might occur in those constructions. However, with verb forms indexing first and second persons, there would not be any ambiguity. In (34a), *nd-âŋ=ŋkʰə* (like$_1$-1SG=NMLZ:P) is unambiguously a case of P-relativisation, even when taken out of its original semantic context, and without the A (*ŋô* '1SG') overtly present. If it were an A-relativisation of a third person A, i.e. "the one that likes me", an inverse marker must be added:

(35) *u-nd-âŋ = ŋkʰə*
INV-like₁-1SG = NMLZ:A
the one that likes me

It cannot be an A-relativisation of first person, either, since I mentioned in Section 3.4, that the relativised argument is treated as third person in the relative clause. A relative clause referring to the first person is illustrated in (36).

(36) [*ndæ̂ = ŋkʰə*]   *ŋ-áŋ*
like₁ = NMLZ:A be₁-1SG
I am the one that likes it.

When the verb form of the relative clause is in third person, ambiguity will arise if no argument is present. Take the relative clause of (34b) as an example. If the A, *ʑə̂ʑo* 'uncle' were not present, the form *u-cʰó = ŋkʰə* (PST.INV-open₂ = NMLZ) would have two contradicting meanings, either "the one who opened" or "the thing that she/he opened".

4.3 Instrument and place

Place and instrument adjuncts are relativised with the oblique nominaliser = *ri*. Place relativisation is illustrated in (37). Note that the marker = *ri* is attached to the inferential marker = *si* in (37b), instead of directly to the finite verb, which indicates a clausal nominalisation.

(37) *Place relativisation*
   a. *tʰæŋə̂m* [ᵢ *jbə̂v = rí*]   ᵢ = *tə = tʰa*   *jbə̂v = ri = tʰa*
      illness ∅ swell₁ = NMLZ:Obl ∅ = DEF = LOC swell₁ = NMLZ:Obl = LOC
      <miánhuā> = tə kʰú = si
      cotton = DEF   put.in₁ = IFR
      One puts cotton on the place where it is swollen.
   b. *câ*   [*jə̂m* ᵢ *næ-bó*   *næ-kʰrə̂ = si = ri*]
      DEM house ∅ NPST-fall₁ IPFV.PST-be.about.to₂ = IFR
      ᵢ = *tə = gə*   *kə-tə-srî¢æ-n*
      ∅ = NMLZ:Obl = DEF = LOC IMP-NEG₄-go.to.look₁-2
      Don't go to see the place where the house is about to collapse.

Instrument relativisation is illustrated in (38a), with example (38a) presenting a bare verb, of which the finiteness cannot be determined, and example (38b) a finite verb.

(38) *Instrument relativisation*
   a. [ᵢ *ʁdojú tʰǽ = rí*]   *láɣᵢ u-ndʑé = si*
      ∅ fish   take₁ = NMLZ:Obl stick PST.INV-get₂ = IFR
      He got a stick that was used to catch fish.
   b. *câ   kapə̂ = tə* [ᵢ *jælâ   bódʑədə ldz-âŋ = ri*]   ᵢ *rə-ŋǽ*
      DEM book = DEF ∅ specially Tibetan learn₁-1SG = NMLZ:Obl ∅ NPST-be
      This book is my tool of learning Tibetan.

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4.4 Time

Wobzi developed two markers for Time relativisation presenting no semantic distinction, =*ska* and =*luŋkʰa*. Only headless relatives are found.

(39) a. *bótpa*=*ɣə*   [*cəcə̂* <*fēng shī*> =*tə* *smǽn*   *vî*=*ska*]   *çə*
          Tibetan=ERG DEM rheumatism=DEF medecine do$_1$=NMLZ:Time CONJ
          χpə́   *k-u-stî*   *ntɕʰǽ*
          mugwort PST-INV-put$_1$ will$_1$
          When Tibetans treat rheumatism, they would use mugwort.

      b. [*sə̂-nvsæmnʊŋ~nôŋ*=*luŋkʰa*]   *çə* *χurûgə* *kʰrôŋkʰrʊŋ* *ə̂-fsæ*
          PROG-think$_1$~PROG=NMLZ:Time CONJ up.there white.crane one-CL
          rə-ɟé=*si*
          IPFV.PST-exist$_2$=IFR
          When they were thinking, the sky became filled with white cranes.

4.5 Ditransitive constructions

Although Wobzi exhibits two types of ditransitive constructions, indirective and secundative, the relativisation of their arguments does not follow these alignments.

The nominalisers used for T-relativisation are the same as those for P-relativisation, =*spi* for irrealis situations and =*pa*/ =*ŋkʰə* for realis ones, and the nominaliser used for R-relativisation is the oblique =*ri*. Examples are illustrated in (40) and (41).

(40) *T-relativisation*

    a. *Indirective: kʰâ 'to give'*
        [*ætə̂*=*ɣə* *ŋâ*=*kʰe* $_i$ *n-u-kʰá*=*ŋkʰə*] $_i$=*tə*   *kapə̂ râɣ rə-ŋǽ*
        3SG=ERG 1SG=DAT ∅ PST-INV-give$_2$=NMLZ:P ∅=DEF book one NPST-be$_1$
        The thing that he gave me is a book.

    b. *Secundative: sɲí 'to lend'*
        [*nû*=*ɣə* *ŋâ*=*kʰe* $_i$ *n-u-sŋ-áŋ*=*ŋkʰə*] $_i$=*tə*   *kapə̂ râɣ*
        2SG=ERG 1SG=DAT ∅ PST-INV-lend$_2$-1SG=NMLZ:P ∅=DEF book one
        næ-ŋə̂ɣ
        IPFV.PST-be$_2$
        The thing he lent me was a book.

(41) *R-relativisation*

    a. *Indirective: ldzê 'to teach'*
        [*tʂaçî*=*ɣə* $_i$ *bódʑədə n-u-ldzé*=*ri*] $_i$=*tə*   *luvzâŋ*
        Bkrashis=ERG ∅ Tibetan PST-INV-teach$_2$=NMLZ:Obl ∅=DEF Blobzang
        rə-ŋǽ
        NPST-be$_1$

The one to which Bkrashis taught Tibetan is Blobzang.

b. *Secundative: bə̂ 'to give (food)'*

[*nû=ɣə* ᵢ *jaŋjú* *râɣ* *n-u-bə́-n=ri*] ᵢ*=tə* *ŋô*
2SG=ERG ∅ potato one PST-INV-give(food)$_2$-2=NMLZ:Obl ∅=DEF 1SG
næ-ŋ-ûŋ
NPST-be$_1$-1SG

The one to which you gave a potato was me.

5 Interim summary

5.1 Syntactic pivots

In this section, I will focus only on the arguments entailed by each verb type, that is to say, S (intransitive verbs), A (transitive verbs), P (transitive verbs), T (ditransitive and indirect transitive verbs) and R (ditransitive verbs). Since the P and the T in Wobzi are relativised in two ways depending on the modality chosen, syntactic pivots of the nominalisers can be analysed in several manners. One can discuss the syntactic pivots of each nominaliser according to the modal category, which is illustrated in Tables 7 and 8.

We can see in realis constructions, a binary distinction that isolates the R is given. From the point of view of relativisation, the four arguments, S, A, P and T cannot be distinguished, showing a neutral alignment. In irrealis constructions, an accusative pivot is observed (as termed by Bickel 2004), where S and A are treated in the same way, opposing to P and T. No matter which modal category we are in, P and T are impossible to distinguish.

Table 7: Realis syntactic pivots

Nominaliser	Pivot	Flagging
=pa/ =ŋkʰə	S, A, P, T	No flagging or *=ɣə* 'ERG'
=ri	R	typically *=kʰe* 'DAT'

Table 8: Irrealis syntactic pivots

Nominaliser	Pivot	Flagging
=pa/ =ŋkʰə	S, A	No flagging or *=ɣə* 'ERG'
=spi	P, T	No flagging
=ri	R	typically *=kʰe* 'DAT'

Alternatively, pivots can be mapped without considering modality, but from a pure morphosyntactic point of view, illustrated in Table 9. Inverse marking is essential to

the understanding of relative constructions with $=pa$ or $=\eta k^h\partial$, especially when the predicate takes first or second person endings: when inverse is present, the pivot is the A, and when there is no inverse, the pivot is the P. If the predicate of the relative clause is in third person, the pivot can be either the A or the P, if no argument is present.

Table 9: Pivots from a morphosyntactic view point

Pivot	Nominaliser	Morphosyntactic feature
P, T	$=spi$	always
	$=pa/=\eta k^h\partial$	A overt The verb indexes first/second person, but without inverse
A	$=pa/=\eta k^h\partial$	P overt The verb indexes first/second person, and with inverse
S	$=pa/=\eta k^h\partial$	intransitive verbs
R	$=ri$	ditransitive verbs, indirect transitive verbs

Internally-headed relatives, as we mentioned in Section 3.3.3, only S and P (or T) can be relativised in this way. Therefore, like Belhare (Bickel 2004), internally-headed relatives show an ergative pivot in Wobzi.

In conclusion, while internally-headed relatives in Wobzi clearly shows an ergative pivot, externally-headed relatives are divided according to the modality chosen. In realis situations, the core arguments, excluding the R, are treated in the same way, with the nominalisers $=pa$ or $=\eta k^h\partial$. In irrealis situations, an accusative pivot is found, in which the S and the A are treated in the same way.

5.2 Comparative remarks

In this section, I will mainly focus on the comparison of the relativising nominalisers within Rgyalrongic languages and their origins.

5.2.1 Overview of the nominalisers

Among Rgyalrongic languages, there are basically two types of nominalising morphology. The first and possibly the indigenous type is found in Rgyalrong languages with nominalising prefixes that form participles serving as relative clauses. The prefixes from Japhug (Jacques 2008, 2016b) and Tshobdun (Sun 2006) are illustrated in Table 10, and examples are shown in (42), (43) and (44). Unlike Khroskyabs, relativisation in Rgyalrong has nothing to do with modality and the relativisation of the R (indirective); the instrument, the place and the time share the same prefix.

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Table 10: Nominalisers in Rgyalrong languages

Japhug	Tshobdun	Function
kɯ-	*kə-*	S/A
kɤ-	*kɐ-*	P
sɤ-	*sɐ-*	Oblique

(42) Japhug

    a. **S/A**

      [$_i$ *tɯ-nɯ*   *ɯ-kɯ-ts^{h}i*]   *tɤpɤtso$_i$* *ɣɯ*
      ∅ INDEF.POSS-breast 3SG-NMLZ:A-drink child   GEN

      ɯ-kɯ-mŋɤm   *ɲɯ-ŋu*
      3SG.POSS-NMLZ:S-be.painful TESTIM-be

      It is a disease of children who drink milk from the breast. (Jacques 2016b: 9)

    b. **P**

      [*aʑo$_i$* *a-mɤ-kɤ-sɯz*]   *tɤjmɤɣ$_i$* *nɯ* *kɤ-ndza mɤ-naz-a*
      1SG ∅ 1SG-NEG-NMLZ:P-know mushroom DEM INF-eat NEG-dare-1SG

      I do not dare to eat the mushrooms that I do not know. (Jacques 2016b: 10)

(43) Tshobdun

    a. **S/A**

      [$_i$ *kɐmɲɐm o-lŋaʔ*   *kə-r^{n}du*] *tépe-nəʔ$_i$* *kréʃi*   *ŋoʔ*
      ∅ often   3SG.POSS-child NMLZ:A-hit father   Bkrashis be

      The father who hits his child so often is Bkrashis. (Sun 2006: 913)

    b. **P**

      [*kɐmɲɐm$_i$* *ɐ-ké-t^{h}i*]   *nɯ* *tɐwaʔ$_i$* *mɐ-kə*
      often   ∅ 1SG.POSS-NMLZ:P-drink DEF alcohol NON.EXIST-PART

      I don't always have alcohol to drink. (Sun 2006: 913)

(44) a. **Instrument (Japhug)**

      [$_i$ *smɤɣ ɯ-sɤ-pɣo*]   *ɯ-spa*   *ndʑu$_i$ nɯ tɯwɯ*
      ∅ wool 3SG.POSS-NMLZ:Obl-twist 3SG.POSS-material stick DEF spindle

      rmi
      be.named

      The stick used to twist wool is called the spindle. (Jacques 2008: 333)

    b. **Place (Tshobdun)**

      zɔʔ [*tɤ́ru$_i$* *o-sɐ-tó*]   *c^{h}o$_i$*   *ɐ-lɐ-tə-nɛʔ*
      beef forage ∅ 3SG.POSS-NMLZ:Obl-EXIST$_2$ somewhere IRR-IMP-chase$_3$-2

      Lead the cattle to somewhere there is forage! (Sun 2006: 913)

c. **Time (Japhug)**

tʰamtʰam [$_i$ *tɤjmɤɣ*   *ɯ-sɤ-dɤn*]   *ɣɯ*   *ɯ-tɤrʑaʁ$_i$*
now   ∅ mushroom 3SG.POSS-NMLZ:Obl-be.many GEN 3SG.POSS-season

ŋu
be

It is now the season mushrooms begin to multiply. (Jacques 2008: 334)

The second type of nominalising morphology concerns the combination of Khroskyabs and Horpa-Stau that make use of nominalising enclitics or suffixes. Relativisation in Horpa-Stau is yet to be fully understood, for the purpose of this section, I cite two of the outcomes of the ongoing investigation on Khang.gsar Stau, Jacques et al. (unpublished) and Jacques et al. (2017). Table 11 shows the nominalisers in this language.

Table 11: Nominalisers in Khang.gsar-Stau

Nominalisers	Function
ŋkʰə	S/A
lə	P
re	Oblique

In (45), examples of each nominaliser in Khang.gsar Stau are illustrated.

(45)   Khang.gsar Stau

     a.   *ŋkʰə*

        ŋa   [$_i$ *ke-mbjo^ɣ*   *ɲɟəra ŋkʰə*]   *gə$_i$* *ŋõ*
        1SG ∅ very-be.fast run   NMLZ:S CL be.1SG

        I am someone that runs fast.

     b.   *lə*

        va$_i$ [$_i$ *ntɕʰa lə*]   *de ftɕi*   *fɕi*   *ŋərə*
        pig ∅ kill   NMLZ:P DEF castrate should be.IFR

        The pigs to be killed should first be castrated.

     c.   *re*

        ŋa *ŋi*   *rji*   *de* [*rɟu* $_i$ *le*   *re*]   *nə kə-ɕ-u*
        1SG 1SG.POSS horse DEF competition ∅ launch NMLZ:Obl LOC PFV-take-1SG

        I was taken to the place where the horse race would take place.

Other Khroskyabs dialects present similar relativising strategies, while the nominalilsers may be different. Apart from Wobzi Khroskyabs, I conducted rough researches on the relativisation in 'Brongrdzong and Siyuewu Khroskyabs, both are very similar to Wobzi Khroskyabs. In Huang (2007) we can find a brief description of the very close Guanyinqiao dialect, and Yin (2007) has a short presentation on the relativisation of the Njorogs variant as well. Table 12 shows the nominalisers used in those dialects.

Table 12: Nominalisers in Khroskyabs dialects

Wobzi	Guanyinqiao	'Brongrdzong	Siyuewu	Njorogs	Function
=pa, =ŋkʰə	=pa	=pa	=pa, =mə	=pa, =mi	S/A/P
=spi	=spi	=spə	=spi	=spe	P.IRR
=ska, =luŋkʰa	=ska	=ska	=ska, =reŋgoŋ	=to	Time
=ri	=sci	=sci	=sce	=ste	Oblique

All of the Khroskyabs dialects have *pa*-like nominalisers for the S, the A and the realis P, which is probably borrowed form the Tibetan agentive particle པ་ *pa*, however, the alternatives for this nominaliser vary from language to language. Siyuewu =*mə* and Njorogs =*mi* should share the same Tibetan origin, མི་ *mi* 'man', Wobzi =*ŋkʰə* is identical to its equivalent in Khang.gsar Stau, which may again be borrowed from Tibetan མཁན་ *mkhan*, originally meaning 'expert, skilful person', later as well an agentive particle.

The Khroskyabs dialects share the marker =*spV* for the irrealis P. This marker is originally a noun meaning 'material', cognate to Japhug *tɤ-spa* 'material'. The original meaning is still in use in Modern Wobzi, as exemplified in (46).

(46) ʁjə̂=tə   læk^hɿ́=spi   rə-ŋæ̂.   çə̂=tə   jvâ=spi   rə-ŋæ̂
      wheat=DEF bread=material NPST-be₁ barley=DEF Tsampa=material NPST-be₁
      The wheat is the material of the bread, and the barley is the material of the Tsampa.

Khroskyabs alone developed distinctive markers for the time and the instrument/place, which are different from Rgyalrong languages and Stau. Most of the time nominalisers are again of Tibetan origin, =*ska* or =*ska* from Tibetan སྐད་ *skad* 'moment', Wobzi =*luŋkʰa* from Tibetan ལངས་ཁ་ *langs.kha* 'eve, the moment before an event', and Siyuewu =*reŋgoŋ* from Tibetan རེའགག *re.'gag* 'sometimes'. The marker =*to* in Njorogs is however of unknown origin.

As for the instrument/place nominalisers, Guanyinqiao, 'Brongrdzong and Siyuewu share the marker =*scV*, appearing as =*sci* or =*sce*, while Wobzi =*ri* is related to Khang.gsar Stau *re*.

5.2.2   Modal distinction of the P

All Khroskyabs dialects exhibit modal distinction regarding P-relativisation, using =*spV* to relativise the irrealis P, and the same nominaliser for the A and the S to relativise the realis P. The feature, not found in any Rgyalrong language (but it can possibly be found in Horpa-Stau when more investigations are made), is attested in Modern Tibetan dialects.

Tibetan dialects developed different markers for this distinction, albeit described as an aspectual one between perfective and imperfective. In Central Tibetan, according to DeLancey (1999: 234–235), *yag* marks imperfective P-relativisation and *pa* marks perfective P-relativisation, as shown in (47).

(47) Central Tibetan

      a. =*yag* (imperfective)

> [*kho-s* ᵢ *gsod*=*yag*]-*gi* *stag*ᵢ
> 3SG-ERG ∅ kill=NMLZ-GEN tiger
> the tiger that he will kill

    b. =*pa* (perfective)

> [*kho-s* ᵢ *gsod*=*pa*]-*'i* *stag*ᵢ
> 3SG-ERG ∅ kill=NMLZ-GEN tiger
> the tiger that he killed

In the Amdo Tibetan variant spoken in Themchen, *-dʑə* (from རྒྱུ *rgyu* 'property') is employed for imperfective P-relativisation, and *-nu* (or *-ni/-nə*) (from ནི *ni* 'topic marker') for perfective P-relativisation (Haller 2004: 157–158):

(48) Themchen Amdo Tibetan

    a. *-dʑə* (imperfective)

> *ə.ɲiɣa* *ta* [ᵢ *sa-dʑə*]-*zəç-ra* ᵢ *mel-a*
> we.both now ∅ eat-NMLZ-INDEF-TOP ∅ not.exist-VOL.EVD
> Both of us have nothing to eat now.

    b. *-nu* (perfective)

> *ndə* *ɣjaχ*ᵢ [ᵢ *ɸɕi-nu*]-*ɣə* *ko re*
> DEM yak ∅ slaughter-NMLZ-GEN fur be
> This is the fur of the yak that you slaughtered.

5.2.3 Prefixing relativisation/nominalisation in Khroskyabs

The adoption of the Tibetan type of relativisation certainly decrease the original Rgyalrong type that makes use of prefixes. In Modern Khroskyabs, no prefixing relativisation/ nominalisation is found productive. Traces can be found at least with the oblique prefix *s-*, slightly mentioned in Section 2.3, is cognate to Rgyalrong *sV-* and found in at least two examples, shown in (49). One of the examples concerns the nominaliser =*spi*, which is related to the verb *vî* 'to do' with a lenified initial. In Rgyalrong languages, the cognate of *vî* 'to do' is *pa* 'to do' in Japhug, *ka-pa* in Cogtse Situ, and *ka-viê* in Bragdbar Situ[6].

(49)   a. ***s*-*pi*** 'material (instrument of fabrication)' ← *vî* 'to do'
        b. ***s*-*pʰə́m*** 'lid (instrument to cover)' ← *pʰə́m* 'to cover'

It is beyond the scope of this paper to start further discussions on the fossilised forms in Khroskyabs, but one should keep in mind that the Rgyalrong type of relativisation, or at least nominalisation, once existed in Khroskyabs.

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[6]Khroskyabs *v-* corresponds regularly to Japhug and Cogtse Situ *p-* and Bragdbar Situ *v-* or *p-*, and Khroskyabs *-i* corresponds to Japhug, Cogtse Situ *-a* and Bragdbar Situ *-iɛ* or *-iaː* Khroskyabs *rvî* :: Japhug *tɯ-rpa* :: Cogtse Situ *ʃə-rpâ* :: Bragdbar Situ *ɕɐ-rpiê* 'axe'; Khrosyabs *svî* :: Japhug *ɕpaʁ* :: Cogtse Situ *ka-ʃpâk* :: Bragdbar Situ *kə-ɕpiâk* 'to be thirsty'.

6 Correlative-like constructions

Wobzi exhibits a type of correlative-like relativisation. Correlative is "a left-peripheral relative clause linked to a nominal correlate in the clause that follows the relative clause" (Lipták 2009: 1). In Wobzi, these constructions appear with interrogative pronouns *sâ* 'who', *tʰjê* 'what', *ŋâtə* 'which', *ŋâla* 'where', etc.

However, such constructions are not proto-typical correlatives in that 1) it does not necessarily require a correlate (usually a resumptive pronoun, for instance the case of Hindi, see Grosu and Landman 1998: 164-165) in the matrix clause, and that 2) they can be nominalised as well as bare sentences (de Vries 2002: 40).

(50) *S/A correlative*

    a. *S*

        [*cəcâ ndzaŋláŋ=tʰa tʰjê$_i$=də   dâ*]   *semtɕǽn$_i$=rə nâ̂-ŋəɣ=ska*
        DEM world=LOC   what=also exist$_1$ be=TOP   IPFV.PST.Q-be$_2$=TOP
        sæpʰô-pʰu=rə   nâ̂-ŋəɣ   nəjê tsʰâ   vî-n ndʑó
        tree-REDUP=TOP IPFV.PST.Q-be$_2$ 2SG goodness do$_1$-2 must$_1$
        All that is in the world, no matter what it is, animals or plants, you should arrange them well.

    b. *A*

        [*sâ=ɣə   tʰæŋâm k-u-tʰâɣ*]   *n-â-ŋæ   ərône   smâ̂n*
        who=ERG disease PST-INV-take$_2$ NPST-IRR-be$_1$ radically medicine
        vî=spi   næ-mî=pa   rə-ŋâ̂
        do$_1$=NMLZ:A IPFV.PST-not.exist$_2$=NMLZ NPST-be$_1$
        For those who contract an disease, there is no medicine at all.

(51) *Possessor correlative*

    a. [*sâ=ji   sʁǽi só   rə-ʁjâ̂r=ŋkʰə*]=*tə*   *srú   dzî*
        who=GEN voice more NPST-be.beautiful$_1$=NMLZ:Poss=DEF meat eat$_1$
        jáɣ
        permit$_1$
        The one whose voice is more beautiful can eat the meat.

    b. [*brô ŋâtə   bjâm=ŋkʰə*]=*tə=ɣə*   *tʰóv   ndʑé=spi*
        horse which be.quick$_1$=NMLZ:Poss=DEF=ERG authority obtain$_1$=NMLZ
        u-ví   rə-ŋâ̂
        PST.INV-do$_2$ NPST-être$_1$
        The one whose horse is faster will be made king.

(52) *P correlative*

    [*tʰjê$_i$ vî=spi*]   <*bàn fǎ*> *râɣ$_i$ fsæmnôŋ=spi*
    what do$_1$=NMLZ:P.IRR solution   one think$_1$=NMLZ:P.IRR
    næ-dâ=si
    IPFV.PST-EXIST$_2$=IFR

He found a way (literally: He found what he should do).

(53) *Oblique correlative*

    a. [*sə̂=kʰe ntɕúgri n-â-kʰa*] *=tə*   *tsʰâ~tsʰa*   *vî ró*
        qui = DAT salary NPST-IRR-give$_1$ = DEF well~REDUP do$_1$ must$_1$
        Those to whom we give salary must work hard.

    b. [*jdəspʰjǽr ŋə̂la$_i$ rə-və̂*] *jê* *ŋə̂la$_i$* *rə-rbjǽ*   *næ-ntɕʰə̂ɣ=si*
        wave   where NPST-go$_1$ 3SG where NPST-arrive$_1$ PST-go$_2$ = IFR
        He went where the wave went.

7 Genitive as relative marker

7.1 Overview of genitive relativisers in Trans-Himalayan

In his original article, Bickel (1999) uses the term STANDARD SINO-TIBETAN NOMINAL-ISATION (also mentioned in Section 4) to account for the morphological unification of genitivisation, relativisation and nominalisation in "many, if not most" Trans-Himalayan languages. If we exclude genitivisation, as DeLancey (2002: 56) states, "the identity of relativisation with nominalisation constructions does seem to be nearly universal throughout the family". Genitivisation as means of relativisation is less common, but can still be found in different branches of the family.

    In Sinitic languages, such as Mandarin Chinese and Cantonese, the genitive marker is used as the relativiser (Chao 1947: 44-45), illustrated in (54).

(54) a. Mandarin

        教書　的 人
        jiào-shū de rén
        teach-book GEN person
        the one that teaches

    b. Cantonese

        教書　　嘅 人
        gaau³-syu¹ ge³ jan⁴
        teach-book GEN person
        the one that teaches

    In Lahu, the same marker *ve* is used for nominalisation, genitivisation and relativisation (Lahaussois 2002, Matisoff 1972), see (55).

(55) a. **Genitive**

        ŋà ve mí-chɔ
        1SG GEN shoulder-bag
        my handbag

    b. **Relative**

và? qhe chu ve   Pîchɔ-pā ô   te   ɣâ
pig like fat GEN Shan   DEM one person
the Shan there that is as fat as a pig

Classical Tibetan, however, employs the genitive marker after nominalisers (DeLancey 2002: 57), see (56).

(56) a. [shi-ba-'i]   ro
          die-NMLZ-GEN body
          a dead body

      b. [slob=dpon med-pa-'i]   brtul=zhugs-chan 'di
          teacher   not.exist-NMLZ-GEN ascetic   DEM
          this ascetic who has no teacher

Unlike the above languages, Rgyalrongic languages are rarely reported to use genitivisation as the main strategy of relativisation. Japhug is found to present its genitive marker *ɣɯ* in some of the cases of oblique relativisation, illustrated in (57). However, genitive is never attested for relativisation of core arguments.

(57) a. Time
          tʰamtʰam [_i tɤjmɤɣ   ɯ-sɤ-dɤn]   ɣɯ ɯ-tɤrʑaʁ_i
          now   ∅ mushroom 3SG.POSS-NMLZ:Obl-be.many GEN 3SG.POSS-season
          ŋu
          be
          This is the season when there are more and more mushrooms. (Jacques 2008: 334)

      b. Instrument
          tɕe kɤ-ɣɤme ftɕaka nɯ [tɯ-ŋga   ɯ-taʁ   tɕe _i qajɯ
          LNK INF-lose method DEF POSS.INDEF-clothes POSS.3-surface LNK ∅ bug
          sɤ-sat]   ɣɯ smɤn_i   tú-wɣ-lɤt
          NMLZ:kill GEN medicine IPFV-INV-release
          The way to get rid of the them is to put insecticide used to kill bugs on the clothes. (Jacques 2015: 108)

In Khroskyabs dialects, it is generally considered grammatical to add the genitive marker *=jV* to nominalisers just like Classical Tibetan (this kind of constructions is very rarely employed, only pronounced when elicited), while adding the genitive marker without a nominaliser is in most cases unacceptable, even totally unacceptable for core arguments in some dialects such as Siyuewu. The Wobzi dialect, however, presents a larger freedom in using the genitive marker for relativisation, which will be described in the next section.

7.2 Genitive relativiser in Wobzi Khroskyabs

Like Japhug, Wobzi Khroskyabs (probably with other Khroskyabs dialects, at least Siyuewu) allows the genitive marker to relativise time and place adjuncts, which are, obviously, two of the most oblique arguments. See the examples in (58), $=ji$ is added to the relative clause without any nominaliser overtly preceding. In (58a), the form $=ska$ must be analysed as a noun instead of a nominaliser.

(58) a. *Time*

        [$_i$ *câ̂*   *χpə́*   *k-u-stî*] $=$***ji***$=ska_i$ *ləspâ̂*$=tə$ *âts^{h}ə*

        $\varnothing$ DEM mugwort NPST-INV-put$_1$ $=$ GEN $=$ time body $=$ DEF a.little

        skí.çæ   *ntç^{h}ǽ*

        be.hot$_1$.TRANS$_1$ will$_1$

        When we apply the mugwort, the body will feel a little hot.

  b. *Place*

        câ̂ [*çælŋá*$=\gamma$ə $_i$ *lbé*   *n-u-lî*] $=$***ji***   <*piàn pian*>$_i$ $=tə$ *ndâ̂ru*

        DEM child $=$ ERG $\varnothing$ urine PST-INV-release$_2$ $=$ GEN diaper $=$ DEF   look.for$_1$

        We look for a diaper on which a child has urinated.

The Siyuewu dialect of Khroskyabs does not allow other arguments to be relativised by the genitive marker, however, in Wobzi, the instrument is also found to be relativised by genitive $=ji$, see example (59).

(59) *Instrument*

      ɬá$=ji$ *p^{h}á*$=tə=t^{h}a   *t^{h}æ̂nəna*   *rə-də́*   [$_i$ *cəcâ̂ɟi vɟú*$=ɟi*

      God $=$ GEN mountain $=$ DEF $=$ LOC no.matter.what NPST-EXIST$_1$ $\varnothing$ 3PL   man $=$ PL

      scêre mə-dár   *mə-sâ̂*] $=$***ji***   *çâŋtuŋ$_i$ dzî*$=spi*   *rə-də́*

      life   NEG$_1$-be.old$_1$ NEG$_1$-die$_1$ $=$ GEN fruit   eat$_1$ $=$ NMLZ:P.IRR NPST-exist$_1$

      In the Divine Mountain, there is all that we need. There is a fruit with which people do not get old or die.

The Wobzi genitive marker does not stop at the relativisation of peripheral adjuncts, it is also grammatical with the intransitive S, as shown by the examples in (60).

(60) a. [$_i$ *p^{h}á*   *næ-χrc^{h}â̂*$=zæ$ *sâ* *χrc^{h}â̂*$=ji...$ *scæ çsæ̂v*] $=$***ji***   *sʁǽi$_i$*

        $\varnothing$ mountain NPST-split$_1$ $=$ and earth split$_1$ $=$ GEN only be.like$_1$ $=$ GEN sound

        râɣ næ-rts^{h}â̂m $=si$

        one PST-sound$_2$ $=$ IFR

        There was a sound that resembled mountains and the ground being split apart.

  b. [$_i$ *bré*] $=ji$ *p^{h}aɣtç^{h}í*$=tə_i$ *rgəmé*$=q^{h}ra=gə=t^{h}a k-u-tú*$=si$

        $\varnothing$ be.high$_1$ $=$ GEN sideway $=$ DEF stone $=$ big $=$ CL $=$ LOC PST-INV-twine$_2$ $=$ IFR

        It twined on a big stone on the higher sideway.

Transitive arguments are rarely relativisable with the genitive marker in Wobzi, and completely impossible in Siyuewu. In Wobzi, elicitation of genitive relativisation usually fails. Nevertheless, we do find two non-elicited instances of P-relativisation with it in our database, illustrated in (61). The other core argument in a transitive construction, the A, however, is never found to be relativised with the genitive marker, nor is such constructions considered grammatical in any elicitation.

(61) a. [*nəjê$_i$ sə̂-ndæ̂-n*] = **ji**   *metâ$_i$* = *tə*   *u-pʰaɣlə̂ɣ*
       2SG   ∅ SUPERL-love$_1$-2SG = GEN flower = DEF PST.INV-overturn$_2$
       It overturned the flower that you like the most.

   b. *æ̂çə ʁmə́* = *ji* *dʑəgó* [*jê* = *ɣə*   *cəcâmɲi$_i$ k-u-vdə̂*] = **ji**   *tʰjêmɲi*
       CONJ fire = GEN front 3SG = ERG like.this ∅ PST-INV-taste$_2$ = GEN how
       næ-ŋə̂ɣ = *tə* = *ɟi$_i$*   *juŋsâ læ̂*   *k-u-rî* = *pa*   *rə-ŋǽ*
       IPFV.PST-be$_2$ = DEF = PL again always PST-INV-write$_2$ = NMLZ NPST-be$_1$
       Then, he wrote down whatever he had tasted in front of the fire.

In summary, compared to other Khroskyabs dialects even other Rgyalrongic languages, the genitive marker in Wobzi Khroskyabs enjoys a wider possibility regarding relativisation: not only can it relativise place and time adjuncts, it can also relativise instruments and the S, and even the P in a marginal sense. Table 13 shows the functions covered by genitive relativisation in both Wobzi and Siyuewu Khroskyabs.

Table 13: Genitive relativisation in Wobzi and Siyuewu Khroskyabs

Argument	Wobzi	Siyuewu
A	✗	✗
S	✓	✗
P	marginal	✗
R	✗	✗
Instrument	✓	✗
Time	✓	✓
Place	✓	✓
Possessor	✗	✗

8 From genitive to relative marker: the evolutionary pathway

It has been shown above that genitive relativisation is rather not common even in Khroskyabs, not to mention Rgyalrongic, despite its being seemingly wide-spread in Trans-Himalayan. Wobzi is innovative from this point of view amongst Khroskyabs dialects, given its wider possibility to relativise core arguments. This section will focus on how genitive became (and is still becoming) one of the relativising devices in this dialect.

8.1 Hypothesis 1: calque of Chinese relatives

Since the nominalisation strategy in Khroskyabs is a constructional calque of Tibetan, the religiously and culturally dominant language of the region, it may not seem absurd that genitivisation as relativisation is also a calque, but of a different origin: Chinese that is rapidly becoming the most important second language of Khroskyabs speakers. As mentioned in Section 7.1, Chinese relatives make use of the genitive marker.

Relativisation of core arguments of transitive constructions is the most unusual case of genitive relativisation in Wobzi Khroskyabs. Our two examples of P-relativisation using the genitive marker (Example 61), although not direct elicitations, are extracted from the retelling of stories originally written in other languages, Example (61a) from Tibetan, and Example (61b) from Chinese. The process of retelling may cause overliteralness in translation and unnatural grammatical constructions to occur, especially when the language consultants are not professional interpreters, which is the usual case.

However, even though one cannot fully deny the role that language contact plays, the shortcomings of the calque hypothesis are not negligible. First, overliteralness in translation should have little influence here, because the two sentences in question are not literally translated from their original sources; instead, the speaker retold the story with her own expressions. The two original sentences related to the two examples are Example (62a) for (61a), and (62b) for (61b). We can clearly see that the original sentences are both structurally and semantically distinct from the retold sentences.

(62) a. ཞི་མིས་བྱིའུ་དེད་སྐབས་མེ་ཏོག་ལ་ཐོགས་ཏེ་ཁོག་མ་ཟགས་ནས་ཆག་སོང་།

     zhi.mi-s byi'u 'ded skabs me.tog-la thogs   te khog.ma zags
     cat-ERG sparrow follow time flower-LOC be.attached CONJ pot   fell
     nas chag song
     CONJ broke went
     When the cat was chasing the sparrow, it hit the flower pot, overturned and broke it.

   b. 他就着火光把尝百草的体验详细记载下来

     tā jiùzhe   huǒ.guāng bǎ cháng bǎi.cǎo   de xiángxì tǐyàn
     3SG relying.on fire.light   OBJ taste hundred.herb GEN precise experience
     jìzǎi xià.lai
     note down.come
     He wrote down his experience of tasting the herbs with precision by the fire.

Second, as is shown in Table 13, the distribution of the genitive marker presents definitive boundaries, with strict impossibility for the A, the R and the possessor, while productivity with the S, the instrument, the time and the place, and the only marginal case, concerns the P. If it were a calque, we would expect that the use of genitive for relativisation be evenly distributed for all arguments or adjuncts or a continuum of occurrences of genitive following a certain order (for instance, the Accessibility Hierarchy), but neither is observed. In the database, as far as transitive core arguments are concerned, 81 examples of A-relativisation and 59 of P-relativisation are attested;

the fact that no instance of A-relativisation with the genitive marker is found would be surprising if the calque hypothesis were valid, given that A-relativisation significantly outnumbers P-relativisation.

Another deficiency of this hypothesis is that it is hardly testable. This "calque" is not as obvious as that of the relativisation through nominalisation, which is clearly from Tibetan, since it shows identical unusual uses (e.g. modal division of P-relativisation); it is also difficult to find out substantial evidence to support this theory, therefore nearly impossible to set up testing criteria.

8.2 Hypothesis 2: spread from lower-ranking arguments

Since time and place adjuncts are relativisable with genitive across Rgyalrongic languages, one can regard them as the starting point of the spread of genitive relativisation through the Accessibility Hierarchy, from which the use of genitive relativisation could have gradually spread closer to core arguments. This process is typologically plausible, as Romaine (1984: 445, 463) states, new strategies of relativisation will enter a language in reverse order on the Accessibility Hierarchy, in other words, from low to high, and the spreading process should be gradual. Examples can be found amongst Germanic languages, where wh-relatives started out with only low-ranking adjuncts, and spread to the higher ranking ones to different degrees (Romaine 1980: 233; Wagener 2017: 192).

However, if we observe Table 13 again, we will find the spreading hypothesis is only valid to a limited extent. First of all, the use of genitive =*ji* does not start from the lowest slot that is relativisable, the possessor, rather, it skips the possessor and is directly applied to time and place adjuncts; second, the R, situated between oblique adjuncts and core arguments, is skipped off from the putative spread. Therefore, genitive relativisation cannot have spread up along the Accessibility Hierarchy.

8.3 Hypothesis 3: the ergative pathway through analogy of noun complementation

It is shown that the previous two hypotheses are both unsatisfactory, we therefore need to search for more plausible explanations. In this section, I will come up with a third hypothesis exploring the ergative pivot of genitive relativisation in Wobzi, accompanied by the analogy of noun complementation, which triggers the evolution.

8.3.1 Ergative pivots

The genitive marker =*ji*, as a relativiser, is productive in S-relativisation and marginally available for P-relativisation, as far as core arguments are concerned. A-relativisation is however never touched by =*ji*. In short, except for the relativisation of oblique adjuncts, only the relativisation of a part of core arguments is concerned with the genitive marker. Relativisation of oblique adjuncts with the genitive marker is shared by Rgyalrong languages, which indicates its antiquity, while S/P relativisation with the genitive marker is only observed in Wobzi, which means it is a recent development.

The examples of P-relativisation with the genitive marker are admittedly few in number, however, it does not mean that one should completely ignore them. First, the examples we show are not directly elicited (see Section 8.1); second, they are not of extremely complex syntactic structures, therefore the speakers have no need to force themselves to find a solution through calquing or borrowing; third, as I have mentioned above, it is curious that the genitive marker never appears in A-relativisation, but occurs in P-relativisation of which the total number is fewer. This fact would mean that genitive relativisation of the P does not appear by accident.

According to the data, we can see that the genitive marker =*ji* has completed its invasion of S-relativisation, and infiltrates the relativisation of the P. That it does not affect the relativisation of the A may be an indication that this infiltration follows an ergative pattern, where the P is treated in the same way as the S, instead of the A. Figure 1 visualises the pathway. Genitive relativisation in Wobzi therefore probably presents an ongoing evolution towards ergative pivots among core arguments.

Figure 1: The ergative pathway of =*ji*
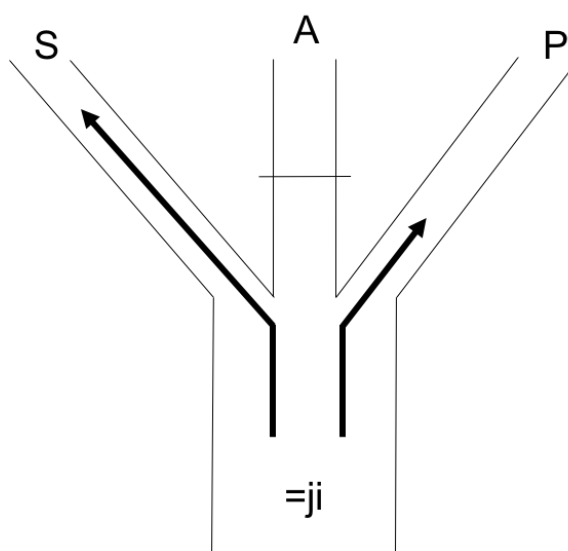
If this hypothesis is valid, we might expect that T-relativisation can also be marked by genitive =*ji*, because the T behaves in the same way as the P in our database. However, no such examples are found yet.

8.3.2 Analogy of noun complementation

In this section, I discuss how the genitive marker made it to relativise core arguments, especially the S, in addition to oblique adjuncts. My hypothesis is that it is due to the analogy of noun complementation.

Although some scholars, such as Kayne (2010) and Comrie (1998), analyse noun complementation as relativisation, in this paper, we keep the distinction between the two.

As Jacques (2016a: 239) states, "for the purpose of detailed language description it is always err on the side of splitting than on that of lumping". The head noun of a relative clause has a syntactic role presented in Section 3.1, while that of a complement clause does not. This said, ambiguities can be found in Wobzi Khroskyabs.

In Wobzi Khroskyabs, as well as other Khroskyabs dialects, complements of nouns are systematically preceded by the genitive marker =*ji*, see the examples in (63).

(63) a. *cəcə̂ æ̂çə* [*vɟú tʰjê̂mɲi rə-tʰó=tə*] =***ji*** *zgrón*head *rə-ŋǽ*
DEM CONJ man how PST-come$_2$=DEF=GEN story NPST-be$_1$
This is the story how humans came into being.

b. *ætə̂mɲi n-â-ʁbaɣ çə jê=ji juŋsá* [*scə̂t*] =***ji***
like.that PFV-IRR-be.many$_1$ CONJ PRON.REFL=GEN again be.happy$_1$=GEN
*snʋŋvâ*head *ætə̂=pa rə-ŋǽ*
feeling DEM=NMLZ NPST-be$_1$
If (the mountain deity) gets a satisfactory amount (of tributes), he will be happy (he will have a feeling of happiness).

c. *cə̂* [*təvâ tʰê=zo mí*] =***ji*** *<pái pai>=tə rə-ŋǽ*
DEM smoke absorb$_1$=NMLZ not.exist$_1$=GEN board=DEF NPST-be$_1$
This is the no smoking sign.

The embedded clauses presented in (63) cannot be analysed as relatives, since their head nouns are relativisable arguments; they can only be regarded as complement clauses modifying the head nouns. However, these constructions are structurally and even semantically similar to relative constructions, especially S-relativisation. We can easily translate those sentences with relative clauses in English: the examples (63a) and (63b) can be semantically (although not syntactically) reinterpreted as S-relatives, *this is the story that is about how humans came into being,* and *he will have a feeling that is happy* respectively, and Examples (63c) can be either an S-relative, *this is the sign that reads "no smoking",* or an instrument relative, *this is the sign used to ban smoking.* Such ambiguities may trigger the reanalysis of the marker =*ji,* from an original genitive marker to a relativiser.

In a same narrative, we do find a pair of constructions bearing close meanings, one of which has a head noun that takes a complement clause, and the other a head noun taking a relative clause just by adding a simple verb, illustrated in (64).

(64) a. [*pʰá rcʰə̂*] =***ji*** *sʁǽi=tə*head *ə̂-ji çî smé=si*
mountain split$_1$=GEN sound=DEF one-CL always hear$_2$=IFR
He heard the sound of splitting mountains.

b. [$_i$ *pʰá næ-χrcʰə̂=zæ sâ χrcʰə̂=ji... scæ çsə̂v*] =***ji*** *sʁǽi$_i$*
∅ mountain NPST-split$_1$=and earth split$_1$=GEN only be.like$_1$=GEN sound
râɣ næ-rtsʰə̂m=si
one PST-sound$_2$=IFR
There was a sound that resembled mountains and the ground being split apart.

The embedded clauses in (64) both describe the resemblance of a sound to that produced by mountains and the ground splitting apart. However, Example (64b) presents

a relative clause, in which the head noun, *sʁǽi râɣ* 'a sound' is the S of the verb *çsɐ̂v* 'resemble'; Example (64a) presents a complement clause, since the head noun, *sʁǽi =tə* 'the sound', cannot be an argument of the clause. Despite the subtle structural difference, we can see the overall appearance and the semantics of these two examples are very close to each other. This pair of subordinate clauses can be therefore considered as a living example of the marker *=ji* swaying between noun complementation and S-relativisation.

My stance in this paper is to concur with the hypothesis presented in this section that the marker *=ji* enters S-relativisation through the analogy of noun complementation, due to subtle semantic and structural ambiguity, creating a continuum between noun complementation and relativisation, and then spread to P-relativisation following an ergative pathway, illustrated in Figure 2.

Figure 2: Evolutionary pathways of the marker *=ji*
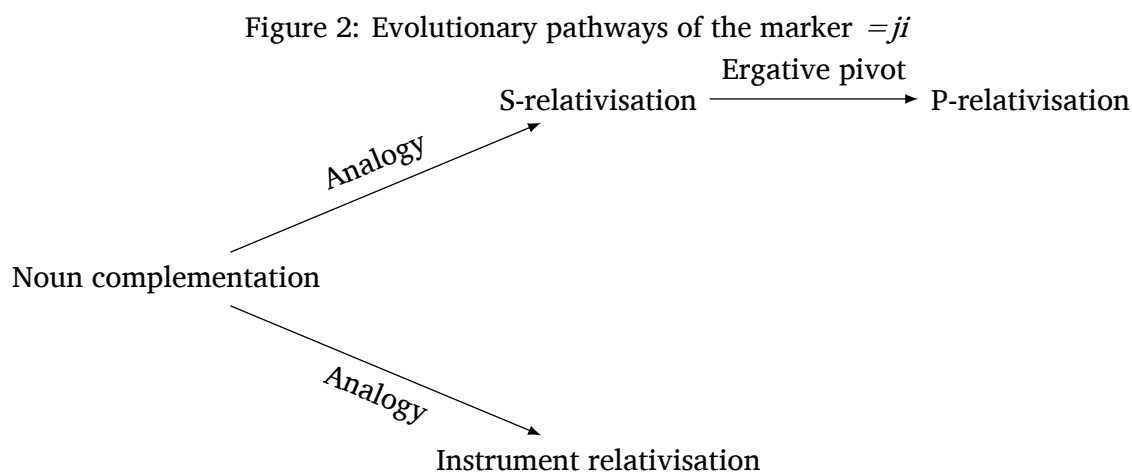
8.3.3 Comparative remarks

In the previous section, I came up with a pathway towards relativisation, starting from genitivisation. While it is probably the case in Khroskyabs, this pathway does not seem to be universal across Trans-Himalayan languages. DeLancey (1986, 2002) shows a reverse pathway in Kathmandu Newari, in which the relativiser *gu(li)*, itself from the homophonous nominaliser, actually developed into a genitiviser. Delancey also states that the Lahu relativiser/genitiviser *ve* followed the same pathway.

The Mandarin Chinese relativiser/genitiviser 的 *de* underwent the same reverse process as Newari and Lahu, as observed by Shi and Li (2002: 13-14). The genitive use of *de* in Mandarin is apparently the very latest amongst its other uses, having emerged in the 12th century, whereas the relative use emerged in the 9th century.

As for Old Chinese, Shi and Li (2002: 6) state that the genitiviser 之 *tə* (Mandarin *zhī*) had three main functions, it was employed for genitive phrases, relative phrases and associate phrases, with the last use presumably including noun complementation. No comments have been made to judge which use was original. They cited examples from the Analects of Confucious (around 500–200 BC) for genitive and relative uses, and

an example from *Shì Shuō Xīn Yǔ* (425 AD) for the associate phrase use, which dates more than half a millennium after the Analects. However, one may easily find noun complementation with 之 **tə* in Old Chinese of the same period as the Analects:

(65) a. 如知為君之難也

     *na *tre [**Gʷraj *C.qur*] **tə* **nˤar* **lAjʔ*

     if know be   ruler GEN difficulty PART

     If one knows the difficulty to be a ruler... (*The Analects, Zǐlù* 15)

  b. 固相師之道也

     *[k]ˤa-s [**saŋ-s *srij*] **tə* **k.lˤuʔ *lAjʔ*

     radically assist master GEN way   PART

     This is certainly the way to assist a master. (*The Analects, Wèi Líng Gōng* 42)

  c. 為我作君臣相說之樂

     *Gʷraj-s *ŋˤajʔ *tsˤak [**C.qur *giŋ*   **sang *lot*]   **tə* **ŋˤrawk*

     for   1SG make ruler   minister RECP *be.pleased* GEN music

     Compose a piece of music about the ruler and ministers being happy and harmonious together. (*Mèngzǐ, Liáng Hùi Wáng* 2:11)

Therefore, in Old Chinese, the three uses of the marker **tə* coexisted, with the possibility that it spread quickly from one use to all. It is however hard to determine whether the directionality was identical to that of Wobzi Khroskyabs.

9 Conclusion

Relativisation in Khroskyabs is of interest from the perspectives of typology and historical linguistics. Nominalisation is the main strategy. Nominalising enclitics are used to relativise different funtions through the possessor to the core arguments included in the Accessibility Hierarchy. Externally-headed relative clauses can either precede or follow the head noun, which, according to Andrews (2007: 211), is typologically rare. Internally-headed relatives are also attested in Wobzi Khroskyabs, whose heads are prohibited from definite marking.

It is safe to say that the nominalising strategy is a result of language contact with Tibetan, since a good part of the markers are borrowed from Tibetan, and the unusual modal division of P-relativisation is attested in both languages. Khroskyabs adopted the Tibetan type of nominalisation/relativisation to replace its original Rgyalrong type.

A new type of relativisation using the genitive marker *=ji* is observed in Wobzi Khroskyabs, with a wider range of relativisable arguments than other Khroskyabs dialects as well as Rgyalrong languages. Genitive *=ji* can not only relativise oblique adjuncts (time, place, instrument), but also the S and even the P. Its evolution drew our attention and several hypotheses were proposed. The most plausible hypothesis states that *=ji* extended its relativising capability by analogy of noun complementation, and followed an ergative pathway during its spread within core arguments. The pathway from genitivisation

towards relativisation is by no means common cross-linguistically, as Hendery (2012: 88) notes, there are few languages found with this pathway, and it would be more secure to say that "the relative marker was extended to possessive (genitive)". Our study however shows that the possibility for the genitive marker to become a relative marker.

Different types of syntactic pivots are attested, as shown in Table 14. The ergative pattern seems to be productive since it is adopted by the new comer, genitive relativisation.

Table 14: Syntactic pivots in relativisation in Wobzi Khroskyabs

Type		Syntactic pivots
Externally-headed nominalised	Realis	Neuter
	Irrealis	Accusative
Internally-headed nominalised		Ergative
Genitive		Ergative

Relativisation in Khroskyabs shows radical differences from Rgyalrong languages, though traces of the Rgyalrong type of relativisation can be found without productivity. Wobzi Khroskyabs presents a more innovative system than Siyuewu Khroskyabs, as we have seen in this paper, the system is still visibly evolving. Data of other Khroskyabs dialects are still insufficient today, future findings on Khroskyabs relativisation may give us a clearer picture of the evolutionary pathways.

Abbreviations

Abbreviations: A: agentive argument, P: patientive argument, S: intransitive subject, T: theme, R: recipient, ABL: ablative, ALL: allative, ASSRT: assertive, CL: classifier, CONJ: conjunction, DAT: dative, DEF: definite, DEM: demonstrative, ERG: ergative, GEN: genitive, GENERIC: generic, IFR: inferential, IMP: imperative, INF: infinitive, INSTR: instrumental, INV: inverse, IPFV: imperfective, IRR: irrealis, JUSS: jussive, LOC: locative, NEG: negative, NMLZ: nominaliser, NPST: non-past, PASS: passive, PFV: perfective, PL: plural, PROG: progressive, PRON.REFL: reflexive pronoun, PST: past, Q: interrogative, REDUP: reduplication, SG: singular, SUPERL: superlative, TOP: topicaliser.
Chinese loans or terms are presented in Pinyin between pointy brackets.

Acknowledgements

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