

Relativization strategies and alignment in Thulung Rai Aimée Lahaussois

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Aimée Lahaussois

Abstract

This article describes the relativization strategies found in Thulung Rai (Eastern Nepal, Tibeto-Burman, Kiranti subgroup). The strategies make use of three morphemes: a finite nominalizer -*m* (along with allomorph -*mim*), and two participial markers, -*pa* and –*ma*, and have different distributions in terms of the arguments they can relativize upon. Of particular interest is the question of the distribution of strategies available for relativization on subjects, and how these correlate with case marking and the person-based split ergative system found in Thulung

Résumé

Cette article décrit les stratégies de relativisation trouvées en thulung rai (Népal oriental, tibétobirman, sous-groupe kiranti). Ces stratégies font appel à trois morphèmes distincts : un nominalisateur -*m* (et son allomorphe -*mim*), ainsi que deux marqueurs participiaux, -*pa* et -*ma*, avec des distributions différentes selon les arguments sur lesquels porte la relativisation. Une question d'intérêt est celle de la distribution des stratégies pour la relativisation du sujet et de la corrélation de ces stratégies avec le marquage de cas du thulung, étant donné que le thulung est une langue avec un marquage ergatif scindé.

Keywords: relative clause, ergative language, alignment, accessibility hierarchy, relativization strategies

Mots clés : stratégies de relativisation, proposition relative, langue ergative, alignement, hiérachie d'accessibilité

Introduction

My goal in this article is to present the relativizing strategies used in Thulung Rai. There are three strategies available, but they each have different distributions based on the role of the head of the relative clause (henceforth RC) in the matrix sentence.

Section 1 of this article provides an overview of the language. Section 2 presents the types of nominalization patterns found in Sino-Tibetan languages and how they manifest in Thulung. These patterns are relevant to the topic at hand because the three relativization strategies used in Thulung, nominalizer -*m* and participial markers -*pa* and -*ma*, also participate in other nominalizing functions. Section 3 presents generalities about relativization in Thulung. Section 4 discusses the relativization of core arguments (S, A and P) and the constraints on various strategies. Section 5 presents the relativization of non-core arguments: indirect objects, locative, instrumental, comitative, ablative/allative, and genitive. Section 6 presents the typological background against which the data should be examined, notably the accessibility hierarchy from Keenan and Comrie 1977 and the question of how Thulung's ergative split plays into patterns of relativization.

1. Overview of the language

Thulung Rai is a Tibeto-Burman language of the Kiranti subgroup, spoken in Solu district in Eastern Nepal by several thousand speakers. It is an exclusively oral language which was the subject of descriptive work by Allen (1975).

From a typological point-of-view, Thulung is an extensively suffixing language with an ergative split, with 2nd person plural and 3rd person A arguments taking ergative case-marking, and human P arguments marked with *-lai*. P marking is optional on non-human animates and elsewhere (Lahaussois 2003a, 2003b). Thulung is also characterized by complex verbal morphology, with distinct sets of intransitive and transitive markers encoding person and number of up to two arguments (Lahaussois 2011).

2. Standard Sino-Tibetan Nominalization pattern

Thulung follows the same pattern found throughout the Sino-Tibetan area, with nominalizing morphology covering a number of functions. These patterns have been documented widely (Matisoff 1972, DeLancey 1989, Noonan 1997, Genetti et al 2008, Yap et al 2011, among others) and given the label Standard Sino-Tibetan Nominalization (SSTN), (Bickel 1999). The following varied functions have been found to share the same nominalizing morphology : attributive/genitive marking, relativization, nominalization both at the clausal and sentential levels. The Thulung morphemes which participate in SSTN are *-pa*, *-ma*, and *-m*, and the range of functions they each cover will be discussed in turn.

Cognates for Thulung -*pa* and -*m* in some other Kiranti languages were presented in Lahaussois 2003a. A few additional cognates are presented here, in an attempt to show that suffixes related to -*pa* and -*m* are found widely in languages geographically close to Thulung. Khaling has an active participial marker -*pɛ* and a nominalizer¹ -*m/*-*mîm* (the latter is described in Jacques and Lahaussois 2014: 395-396). Kulung has an active participle in -*pa/-p* (Tolsma 2006: 120-123), as well as an infinitive marker -*ma/-m* (ibid 125-128) with some functions which overlap with those of Thulung -*m* (see 2.3). Nothing akin to an unspecified nominalizer is described for Kulung. Dumi has an active participle -*kpi/-pi* (van Driem 1993: 272-274), which is cognate with Thulung -*pa*, and a nominalizer -*m* (ibid, 190-197).

2.1 Main functions of the active participle marker -pa

2.1.1 Active participle marker

The main function found for the morpheme -pa is as an active participial marker. This is exemplified in (1) through (3).

(1)	luŋ	ţsлi	tsjapljapkai	rwak-pa	kwa-jʉ	<i>ŧ lus-ta</i>		
	stone	CONTR	ONOM	call-ACT.PTCP	mud-low.LOC	come.out-PST		
	'The stone jumped down into the mud making a falling sound.'							

- (2) *dhamu-la dipti hopmam wak-pa lwa-na* sky-ABL light like burn-ACT.PTCP see-2SG>3SG 'Do you see the thing shining like a lamp in the sky?'
- (3) *lodoro* tsu-num bal-ta-sik-pa, gupsu hunu thorn.plant thorn-COM wind.around-AUX-REFL-ACT.PTCP tiger over.there

¹ It is interesting to note that the allomorphy is very close to that in Thulung, although note that Khaling -*mîm* has a tone.

<i>athjø</i> over.here	<i>gele</i> up	<i>dhali sokh</i> down hunti	<i>li</i> ing	<i>be-p</i> do-ACT.PTC	<i>a,</i> Pbear lazy	<i>homubh</i> a.le	<i>repa</i> ot	<i>hapa</i> eat-AC	<i>ре-ра,</i> Т.РТСР
<i>noksu monkey</i>	jump	<i>prok-bal-p</i> -AUX-ACT.PT(a CP	<i>phal-bal-pa</i> destroy-AU	<i>а,</i> X-АСТ.РТСР	<i>mini</i> human	<i>sewari</i> headdi	<i>i</i> ress	
bhaː-pa-ma	а	khole lwa	rep-l	bal-pa,	irma	mam-nu	m		baţ-pa

wear-ACT.PTCP-CONJ all story look-AUX-ACT.PTCPgirl.name mother-COM be-

dнm-miri ?е become-ЗРL.PST HS

'They became the thorn wrapping around [trees] with its thorns, the tiger going this way and that, up and down, hunting, the bear, acting lazy and eating a lot, the monkey, jumping around and destroying things, Mini wearing a headdress and looking into everyone's business, Irma staying with her mother.'

2.1.2 Complementizer

The morpheme -pa is also used in complementation, subordinating the clause it marks to the main verb of the sentence. This is seen in examples (4) and (5) which respectively use the main verbs 'to pretend' and 'to know', with the -pa marked clause functioning as a complement to the verbs².

(4)	[<i>ŋo</i>	set-da	Ілк-ра]	li-sa
	fish	kill-PURP	go-ACT.PTCP	pretend-2SG.IMP
	'Prete	end that you a		

(5) [*u-ri-tsip bu-tsi rwak-pa*] *tha bu-du-m pAtshi* 3POSS-sibling-DU be-3DU say-ACT.PTCP know do-3SG>3SG.PST-NMLZ after 'After she learned that he had two sisters.'

2.2 Main functions of the passive participle marker - ma

2.2.1 Passive participle marker

The main function of -*ma* is to form passive participles, as seen in (6).

(6) dzamke khok-dzel-ma. nem wo sjan-dzel-ma, baetshim-ma. also clean-put-PASS.PTCP food cook-put-PASS.PTCP house floor sweep-PASS.PTCP dus-thal-la ?e become-AUX-PST HS 'the cooked meal, the cleaned house, the swept floor were ready.'

2.2.2 Nominalization of comitative-marked NPs

A very wide-spread use of -*ma* is to nominalize comitative-marked nouns, describing a characteristic of the noun in question. This is illustrated in (7) and (8).

² Japhug Gyalrong also uses the S/A (ie. active) participle to form complements for verbs of pretence (Jacques, to appear).

- (7) *khomdzøl-num-ma* goiter-COM-PASS.PTCP 'the one with goiter'
- (8) *jum-num-ma* power-COM-PASS.PTCP 'the one with power'

2.3 Main functions of nominalizer -m

The morpheme -*m* is best described as the standard nominalizer in Thulung, as it is used for a wide range of nominalizations. It undergoes allomorphy conditioned by tense: -*m* is used with past forms, and allomorph -*mim* with non-past forms.³

2.3.1 Expression of perfect aspect

Perfect aspect is expressed through a construction with an -m nominalized verb and copula. This is shown in (9) and (10).

(9)	meran	n leled u m-mim-ka	dʉl-miri-m	ba-ida ?e
	DEM	boogeyman-PLU-ERG	care.for-3PL.PST-NMLZ	be-PST HS
	'Those	boogeyman had cared	for them.'	

(10) *bwa dzam-ra las-ta-m bu* pig feed-PURP go-PST-NMLZ be 'She has gone to feed the pig.'

2.3.2 Standard nominalizations

The nominalizer -*m* is used for the nominalization of entire sentences (11), of clauses (12), as well as for complementation (13), to mark attribution (14), (15), and for verbal nominalization⁴ (16.)

(11) [*homu-kubwi theptso dus-ta-m*] bear-GEN head flat become-3SG.PST-NMLZ HS '(It is said that) the bear's head became flat.' *?e*

- (12) [*suk-khep dzes-i-mim] tsлŋra* three-times speak-1PI-NMLZ after 'After we say it three times...'
- (13) [*bhansa go khok-to-m*] *rwak-ta* food 1SG cook-1SG>3SG.PST-NMLZ say-PST 'I cooked the food, she said.'

³ The conditioning is in fact a little more complicated than simply tense, as it also takes into account syllable length of the marked verb. Non-past verbs which are bisyllabic or more can be nominalized with either *-m* or *-mim*, whereas past verbs, which are always at least bisyllabic, can only be nominalized with *-m*.

⁴ Note that the infinitive form of verbs is formed in -*mu* and not in -*m*.

(14) oram bhante-m⁵
this where-NMLZ
'This one from somewhere we don't know.' [lit. this where's]

(15)	<i>baja-ra-m</i> earth-LOC-NM 'all the spring	<i>khole</i> e earth'	<i>ku-ku</i> all	<i>mam</i> water-GEN	mother	
(16)	<i>pi-mim</i> eat-NMLZ	<i>re</i> FOC	o this	<i>пе</i> ТОР		

3. Relativization

'This is to eat.'

In addition to the functions described in section 2, the morphemes -*pa*, -*ma* and -*m* all participate in relativization in Thulung.

While some languages from the same family and from the Kiranti subgroup have a number of options for the structure of RC's—internally- or externally-headed, pre- or post-nominal (Genetti et al 2008: 128, Bickel 1995)—this is not the case for Thulung. No matter which relativizing morpheme is used, Thulung relatives are always prenominal and externally headed, as can be seen in (17), where the relative clause (bracketed) precedes the head noun *dzam*.

(17)	[g0	khok-to-m]	dzam	brʌpa	ba-iqa	
	1sg	cook-1sg>3sg.pst-nm	4LZ	rice	good	be-PST
	'The food I cooked was good.'					

Headless relative clauses are also common, such as (18), where the head noun (which could be *mutsu*, 'person') is omitted from the matrix clause.

(18)	[<i>ama</i>	tsape	dupe	be-pa,	dukhʌ	be-pa]	rok-a			
	1POSS	food	drink	make-ACT.P	TCP hardship	do-ACT.PTCP	come-2SG.IMP			
	'Come	'Come, person who makes my food, who works hard!'								

Unlike what has been described for a number of languages (Dixon 2009:341, Yap et al 2011), Thulung does not appear to have restrictions on tense/aspect in RC's. When the relativization strategy is to use the nominalizer -*m*, the result is a fully finite RC, with the same person/number and TAM markers on the verb of the relative clause as would appear in an independent clause.

4. Relativization on core arguments (S, A, P)

Depending on the argument which is relativized upon in a sentence, different strategies will apply, with different distributions of the relativizers -*pa*, -*ma* and -*m*.

4.1 Relativization on S

When the head noun is the S of the relative clause, the most frequently found strategy is the use the active participial marker *-pa*. The nominalizer *-m* can also be used, but with restrictions. The participial relative clause in *-pa*, being non-finite, has no tense marking morphology. Arguments

⁵ Note that Thulung has a genitive marker *-ku*, as seen in examples (10) and (14).

must be clearly identifiable, as verb morphology cannot be used to identify the arguments. The usual interpretation of the relative clause is as non-past, but interpretation as past is possible if called for by the context (see (21) and (22)).

- (19) *kruk-pa* gupsu roar-ACT.PTCP tiger 'the roaring tiger'
- (20) *on-pa mutsu* run-ACT.PTCP person 'the running person'
- (21) *malo gʌk-pa tsətstə* just be.born-ACT.PTCP child 'the just-born child'
- (22) *mam-ku si-pa røm* mother-GEN die-ACT.PTCP body 'mother's dead body'

The other available strategy involves using the standard nominalizing morpheme -*m*. Because this strategy results in finite relative clauses, the resulting clauses code for tense, as seen in (23).

(23) *kruk-ta-m gups*^H roar-PST-NMLZ tiger "the tiger that roared"

The possibility of forming non-past equivalents is restricted: the reading of non-past forms is, in the absence of aspectual markers, generic. Note that the non-relative sentences equivalent to the ungrammatical relative clauses without aspectual marking (such as habitual, continuous, or progressive) are also considered odd.

(24) **kru:-mim gups*# roar-NMLZ tiger [intended:] 'the tiger that roars'

With added aspectual morphology⁶, however, relativized non-past forms become acceptable.

(25) *jem-ta-si-mim mutsu (*jem-si-mim)* stand-CONT-REFL-NMLZ person (*stand-REFL-NMLZ) 'the person who is standing'

With stative verbs, on the other hand, the non-past form can be relativized, as in (26).

(26) *me-lwasi-mim gupsu* NEG-be.visible-NMLZ tiger

⁶ Note that the morpheme - *ta* in (25) is a continuous marker, and completely unrelated to the - *ta* in (23) which is an allomorph of the past marker - *qa*.

'the invisible tiger'

In sum, there are two possible strategies for relativization on an S argument: The most common in narrative is with *-pa*, resulting in a non-finite relative clause which usually has a non-past reading. The less common, but still perfectly grammatical strategy, is to relativize with *-m*, a strategy mostly found with past relative clauses.

4.2. Relativization on A

When the head noun is the A argument of the relativized clause, there is a single relativization strategy available: the use of -*pa*. Because of the non-finite nature of participles, tense is not coded in these relatives.

As with relativization on S, the usual interpretation is non-past.

(27)	[<i>make-m</i> long.ago-NMLZ 'the person telling	<i>somdilwa</i> story g an old story	<i>sə-pa]</i> tell-ACT.PTC y'	<i>mʉts</i> P perso	u on
(28)	<i>ma:ke khli-pa</i> grain plant-AC 'the person plan Relativization o	<i>mʉts</i> T.PTCP huma ating grains' n a pronomi	# in nal head no	un acting as	A is possible:
(29)	<i>ma:ke khli-pa</i> grain plant-AC 'I saw you plant	<i>gana-</i> T.PTCP 2SG-D ing grains.'	- <i>lai g</i> o AT 19	o lwa-ni SG see-1s	ni G>2SG.PST
(30)	<i>make-m</i> long.ago-NMLZ s ʿI, who tell an ol	<i>səma</i> story d story,'	<i>lilwa se</i> tell-ACT.P	<i>9-pa</i> TCP 1SG	go

A past reading will result from the use of temporal adverbs which fix the RC as past (31), or from the context of the matrix clause (32):

(31)	<i>make</i>	<i>tsөttsө-lo</i>	<i>gupsy</i>	<i>lwa-pa</i>	<i>ŋaːmi</i>
	long.ago	child-темр	tiger	see-ACT.PTCP	old.woman
	'the woman v	vho saw a tiger	when sh	e was a child'	

(32) *meram nem bAnebe-pa mutsu si-da* DEM house make-ACT.PTCP person die-3SG.PST 'The person who built that house is dead.'

Any attempt to produce a nominalized finite equivalent for an RC on a A role is rejected, or, alternately, corrected by turning it into a complement clause. Complement clauses, while they look similar to finite RC's, do not gap the head noun in the clause. This is a crucial syntactic test in

distinguishing between pre-head RC's (the only type found in Thulung) and various types of nominalizations which share the same morphology.⁷

(33)	[<i>meral</i>	m m u tsu-	-ka	ma:ke khli-jʉ-mim]		g0	la-u
	DEM	person-ERG	grains	plant-3sg>3sg-NMLZ	1sg	see-1s	G>3sg
	'I see that that person is plant			ing grain'			

While it is sometimes unclear whether one has a headless relative clause or a complement clause, the verbal agreement markers can provide a clue. In determining whether it is possible to relativize in *-m* on a head noun made up of the pronoun *gana* ('2sG'), I was given sentences (34) and (35):

(34)	*maːk	e khli-nna-m	gana	-lai	go	lwa-n	nni
	grain plant-2sg>3sg.ps		Γ-NMLZ	NMLZ 2SG-DAT		1SG	see-1SG>2SG.PST
	[intended:] 'I saw you (who were) planting grains.'						

(35)	gana	maːke	khli-nna-m	g0	la-uto	
	2sg	grain	plant -2SG>3SG.PST-	NMLZ	1sg	see-1SG>3SG.PST
	'I saw y	you plar	iting grains.'			

While (35) could plausibly have been a relative clause with the head noun preposed, the agreement marking on the matrix clause verb reveals that it is a complement clause: the 1SG>3SG marker indicates that the P is a 3SG, namely the clause [you plant grains]; if *gana ma:ke khli-nna-m* in (35) had been a RC, the agreement marking on the matrix verb would have been 1SG>2SG, as 2SG would have been the P.

Relativization on an A argument is thus only possible with a single strategy: participial relativization with -*pa*; the tense is non-past by default, unless context makes it otherwise; the RC is necessarily non-finite.

4.3 Relativization on P

When the head noun is the P argument of the relative clause, the two possible strategies are to use the standard nominalizer -*m* and the passive participial marker, -*ma*. Relativizing with -*m* results in a fully finite clause, which can optionally include agents, as in (36), but need not, as in (37).

(36)	[<i>khomda-ka</i>	bʉ-dʉ-m]	kaijo thaki	r0
	Khomda-ERG	do-3sg>3sg.pst-nmlz	comb	brush
	'the comb and bru	ush which Khomda mad	e'	

(37) *pu-mim dzam* eat-NMLZ food 'the food (he) eats'

The other commonly available strategy is relativization with the passive participial marker - *ma.*

(38) athambili wo tsa-mma sө pi-ji-lo jo lʉ-pa

⁷ The fact that (33) cannot be translated "I see the grains that that person is planting" also shows us that Thulung does not have internally-headed RC's.

nowadays also roast-PASS.PTCPmeat eat-1PI>3sg-TEMP salt taste-ACT.PTCP 'Even now when we eat roasted meat, it tastes salty.'

(39) *ŋado khli-mma ma:ke-mim tho:-mi* earlier plant-PASS.PTCP grain-PL be.ready.for.harvest-3PL
 'The grains planted earlier are ready for harvest.'

There is however a constraint on its use: it cannot co-occur with an agent in the RC (see (41)).

(40) *lwa-mma mʉtsʉ* see-PASS.PTCP person 'the seen person'

but

(41) **go lwa-mma mʉtsʉ* 1sg see-PASS.PTCP person [intended:] 'the person seen by me'

Interestingly, the active participle marker -*pa* can be be found with two instances of P relativization, both found with great frequency but limited to these two scenarios. Even though the use of -*pa* for relativization here is very unusual, the fact that the non-animate nature of the head noun forces the only possible interpretation as a P. The frequency of their use suggests that these expressions can be thought of as lexicalized. Also noteworthy is that they have equivalents in Nepali—*khāne kurā* (eat-NPST.PTCP thing, 'food') and *bhan-eko kurā* (say-PST.PTCP thing, 'the thing talked about'), and it is likely that these expressions are calqued.

- (42) *pe-pa dzam/thok* eat-ACT.PTCP food/thing 'food for eating'
- (43) *rwak-pa lwa* say-ACT.PTCP story 'the thing that was said'

5. Relativization on non-core arguments

In this section, I discuss the arguments other than S, A and P which are potentially accessible to relativization. Indirect objects deserve special treatment as we must consider the accessibility to relativization of two roles, namely G and T, and the strategies that allow such relativization.

The adjunct categories which will be discussed are locative, instrumental, comitative, ablative/allative, genitive. Objects of comparison, which can be relativized upon in some languages, are inaccessible in Thulung. The general rule concerning relativization on adjuncts is that all three strategies are usually possible: finite relativization with -*m* is always possible. Relativization with - *pa* is usually possible, with a generic reading or a non-past reading concerning a specific event, and the agent can appear in this type of relative clause; however, relativization with -*pa* is blocked in situations where the interpretation defaults to an A or an S role for the head noun: this happens with all comitatives and with genitives where the verb in the relative clause is transitive. Relativization with -*ma* is usually possible, with a past reading, but is blocked for relative clauses where the head-noun is a genitive modifier in the relative (5.6).

5.1 Indirect object

While we find 'indirect object' as a single slot on the accessibility hierarchy presented in Keenan & Comrie (1977), it is in fact necessary to look into the relativization possibilities for the two non-A arguments of ditransitive verbs, especially insofar as not all verbs treat these arguments in the same way with respect to verb agreement.

To give the reader a general sense of what a ditransitive construction looks like in Thulung, consider (44).

(44)	go	nem-ra	khotle-lai	dzam	phet-pu-ma	gwak-pumi
	1sg	house-LOC	everyone-DAT	food	serve-1sg>3sg-conj	give-1SG>3PL
'At the house, I serve food to everyone and give it to them.'						

The A is *go*, '1SG', which is unmarked for case as it is in the nominative (Thulung has a split ergative, with 2PL and 3rd person A's marked for ergative, while 1st person and 2SG and 2DU are in the nominative case, see Lahaussois 2003b). The G (the most goal-like argument) in (44) is *khotle*, 'everyone'. The dative marking it receives is borrowed from Nepali and serves to mark primary objects: both P's and G's when these are human (and sometimes particularly salient non-human animates). The T (the other most patient-like argument) in (44) is *dzam*, 'food', which is unmarked for case.

One noteworthy issue is that the marking is the same regardless of the type of ditransitive verb. If we consider again (44), we see that there are two ditransitive verbs present, and yet they show different verb agreement. The first verb, *phenmu* 'serve', takes *dzam* 'food' as its patient (as indicated by the 1SG>3SG marker -*pu*), whereas the second verb, *gwa:mu* 'give', indexes a 3PL patient concordant with *khotle* 'everyone', these two types of verbs corresponding to what have been called indirective and secundative respectively (Malchukov et al 2010: 3). This contrast in the two types of agreement marking stands in opposition to the case marking, which always assigns dative -*lai* to G and leaves T unmarked, regardless of the type of ditransitive verb. In this sense, Thulung is different from some related languages, such as Chintang and Belhare, which not only have different agreement marking but also different types of alignment depending on the class of ditransitive verb (Bickel et al, 2010). That said, even with the agreement and case marking diversity found within the ditransitive verbs of Chintang and Belhare, the latter languages show no constraints on relativization, both T and G being accessible to relativization using the same strategy.

As for Thulung, of the three available relativization strategies, two of them can be used to relativize on both G and T. Examples (45)-(48) show that relativization on G can be achieved using -m ((45) and (47)), for a finite RC, and -ma ((46) and (48)), for a non-finite RC from which the A argument is removed.

- (45) gana dzam gwak-nami-m m#ts#
 2SG food give-2SG>3PL-NMLZ person 'the people you gave food to'
 (note 2SG>3PL marking on verb, and no indexing of dzam'food')
- (46) *dzam gwak-ma mutsu* food give-PASS.PTCP person 'the person food was given to'
- (47) *go kh∧uluŋ sok-to-m mʉtsʉ-mim* 1SG money pay-1SG>3SG.PST-NMLZ person-PL 'the people I paid money to'

(note 1sg>3sg marking on verb, indexing 'money' as P, not 'people')

(48) *khʌuluŋ sok-ma mʉtsʉ-mim* money pay-PASS.PTCP person-PLU 'The people who were paid money'

Relativization on T is also achieved using the same two strategies: (49) and (51) show relativization using -m resulting in finite RC's, while (50) and (52) show relativization using -ma, resulting in non-finite clauses from which the A must be omitted.

- (49) *khotle-lai gwak-tomi-m dzam* everyone-DAT give-1SG>3PL.PST-NMLZ food 'The food that I gave to everyone'
- (50) *khotle-lai gwak-ma dzam* everyone-DAT give-PASS.PTCP food 'The food given to everyone'
- (51) *khotle-lai sok-to-m khauluŋ* everyone-DAT pay-1SG>3SG.PST-NMLZ money 'The money I paid to everyone'
- (52) *khotle-lai sok-ma khauluŋ* everyone-DAT pay-PASS.PTCP money 'The money paid to everyone'

Relativization with -*pa* leads to a different interpretation when the head noun is the G argument: the RC is interpreted as having an A head noun, rather than a G head noun, as in (53). Because relativization with participials necessarily blocks the A from appearing inside the RC, it is not possible to force three arguments into a clause such as (48). As a result, the reading of the head noun of the RC is as the A of a G-less ditransitive verb.

(53) d*zam gwak-pa mutsu* meal give-ACT.PTCP person *the person rice was given to 'the person who gave rice'

When -*pa* is used in an attempt to relativize on T, there is no interpretation that makes sense.

(54) **khotle-lai gwak-pa dzam* everyone-DAT give-ACT.PTCP food [intended:] 'the rice given to everyone'

Because relativization in *-pa* is the exclusive strategy for A relativization, and the head noun in (54) cannot be an A (being non-animate), there is no possible way to resolve the RC.

The two possible strategies for both G and T are therefore -*m* and -*ma*. Thulung has primary object marking for case, with both (human) P and G taking the same marking (dative -*lai*), and both (non-human) P and T taking the case (remaining unmarked). The relativization strategies available for P (both human and non-human) are the same as those found for G and for T.

5.2 Locative

For a head noun which would be locative case-marked if the relative clause were a main clause, all three relativization strategies are possible.

For adjunct relativization, the difference between the active and passive participle strategies seems to be neutralized to a matter of tense, with -pa coding non-past events (as in (55) and (56)) and -ma coding past events (as in (57) and (58)). Relativization with -m being finite, tense is coded through verb agreement markers ((59), (60)).

je

(55) *go bat-pa nem* 1SG live-ACT.PTCP house 'the house I live in'

(56) go bhramu phot-pa
 1SG buckwheat SOW-ACT.PTCP field
 'the field I will plant buckwheat in'

- (57) *je dzul-ma dzul-khop* clothes place-PASS.PTCP put-place 'the place the clothes were put (on a specific occasion)'
- (58) <u>tsøttsø-min</u> si:sit-ma iskul child-PL learn-PASS.PTCP school
 'the school where the children studied (but don't study anymore as they are grown)'
- (59) *go bu-ŋu-mim nem* 1sg live-1sg-NMLZ house 'the house I live in'
- (60) *go bopsesi dzul-to-m thal* 1SG fruit place-1SG>3SG.PST-NMLZ plate 'the plate I put fruit on'

For all of the relatives in the examples above it is possible to make the equivalent independent sentences in which the head noun from the RC becomes an adjunct with locative marking -*ra*.

5.3 Instrumental

When the head noun is an instrumental, all three strategies can be used. One of the challenges is that as the case marker is missing, some of the relative clauses below could potentially be on a locative rather than instrumental role (see for example (68), which is to be read as instrumental but could potentially have been interpreted as a locative). The

examples must be checked against their case-marked independent sentence equivalents in order to ensure that the role is indeed an instrumental taking marker - *ka*.

Note that the main difference between active and passive participial strategies is one of tense: non-past for the former (see (61)), past for the latter ((62)-(64)) but that encoding of the agent remains, as with core arguments, blocked for *-ma* relative clauses. Finite relative clauses with *-m* can contain not only explicit agents but also indication of the person and number of agent and patient via the agreement marking on the verb ((65)-(68)).

(61) khadzem-ra rjak-pa rja:khop

book-LOC write-ACT.PTCP pen 'the pen (which will be) used to write in a book'

- (62) *khadzem-ra rjak-ma rja:khop* book-LOC write-PASS.PTCP pen 'the pen (which was) used to write in a book'
- (63) *dAksa phAl-ma betho* tree cut-PASS.PTCP machete 'the knife (which was) used to cut the tree'
- (64) *khlea jal-ma dulumtsa* dog strike-PASS.PTCP stick 'the stick used to hit the dog'
- (65) tsøttsø-ka khlea jal-lu-m dulumtsΛ child-ERG dog strike-3SG>3SG.PST-NMLZ stick 'the stick the child beat the dog with'
- (66) *go daksa phal-to-m betho* 1SG tree cut-1SG>3SG.PST-NMLZ machete 'the machete I used to cut the tree'
- (67) *khadzem-ra rjak-to-m rja:khop* book-LOC write-1SG>3SG.PST-NMLZ pen 'the pen I wrote in a book with'
- (68) *go dzam phet-pu-mim thal* 1SG rice serve-1SG>3SG-NMLZ plate 'the plate I use to serve rice'

5.4 Comitative

When a comitative marker is used, the agreement on the verb indexes the number of the combination of comitative-marked argument and its companion. Verb agreement for the relevant arguments must therefore be at least dual when a comitative-marked element is present among arguments indexed on the verb. In (69), for example, the result is that agreement marker indexing the A is dual in number.

(69)	dipluŋ	bлra-kolpa	тө	darembu-num popnarghrok-tsi
	stone	how-large	DEM	Darembu-COM Popnarthrow-3DU>3SG.PST
	'Daren	ubu and Popnar	threw	the very large stone.'

Given this pattern, finite clauses relativized with -m will have non-singular verbs when they include a comitative-marked argument, even if the head noun of the RC is only the formerly comitativemarked argument (and does not include the other member of the NP, to which it was conjoined with comitative marking). This can be seen in (70)–(72).

(70) *khojo khari be-ttsoko-m mutsu* always work do-1DE.PST-NMLZ person 'the person I always work with (and who always works with me)' (lit. the we always work together person)

- (71) tsamsit-tsi-m ŋopse
 play-2DU-NMLZ friend
 'the friend you played with (and who played with you)' (lit. the we played together friend)
- (72) kathmandu-ra lamdit-tsoko-m доряе
 Kathmandu-loc walk-1pe.pst-nmlz friend
 'the friend I walked to Kathmandu with' (lit. the we walked to Kathmandu friend)

Relativization in -*ma* is also possible, as with other oblique arguments, resulting in an interpretation as a past and completed event, as in (73). Because of the non-finite nature of participial clauses, the verb does not have the non-singular agreement seen in (70)–(72).

(73) *tsamsit-ma yopsø* play-pass.ptcp friend 'the friend I played with'

It is not possible to relativize upon the comitative-marked argument with *- pa*. The interpretation of any such RC will be as one with a head noun which is the A (74) or S (75).

- (74) *hellolo khari be-pa mutsu* everyday work do-ACT.PTCP person *the person we work with every day 'the person who works every day'
- (75) tsamsit-pa gopse
 play-ACT.PTCP friend
 *the friend I play with
 'the friend who is playing'

5.5 Ablative/allative

Thulung has a case marker for the ablative, *-laŋka* (or variant *-lam*) (76), but the allative is unmarked and inferred from the context (77).

- (76) *go del-laŋka lʌ-ŋro* 1SG village-ABL go-1SG.PST 'I went from the village.'
- (77) *go del la-ŋro* 1sG village go-1sG.PST 'I went to the village.'

While all three relativization strategies are found with ablative/allative head nouns, there is a considerable amount of ambiguity concerning their relativization: as the case marker disappears in the process of relativization, it is not clear whether one has an ablative or allative head noun. With some verbs, the case is clear from the context. In (78) below, it is difficult to imagine plausible context for fetching water *to* a pond, and thus the ablative interpretation is the only realistic option; similarly in (79), the only plausible context

for the relative is that the head noun is the tree that the person is dropped *from*, thus with an ablative interpretation. Note that in the following examples, *-m* relativization is shown, but in each case, *-ma* or *-pa* relativization could have been substituted (after making necessary changes, such as removing the agent for *-ma* relatives).

(78) *gui ku hʌr-i-m kudin* 1PI water fetch.water-1PI-NMLZ pond 'the pond we fetched water from'

(79) *gu-ka mʉtsʉ-lai al-ly-m dʌksa* 3SG-ERG person-DAT make.fall-3SG>3SG.PST-NMLZ tree 'the tree he made him fall from'

With directional motion verbs, which incorporate the direction of movement (go up, come down, carry away...), the most common interpretation appears to be the allative. Transitive directional verbs in the past have both interpretations—allative and ablative—equally available (see (81), (85)), while for intransitives, particularly in the non-past, the allative alone is possible (see (80), (83)). These patterns applied to all three relativization strategies (with the active and passive participial markers indexing non-past and past respectively). Context plays an important part in the interpretation as allative or ablative, rather than any formal trait: a non-past directional verb, where the action is either in progress or in the future, will quite logically focus on the goal of that motion, rather than its source.

(80) *go jo-ŋro-m khom* 1SG come.down-1SG.PST-NMLZ place

'the place that I came down to'

- (81) *go bAlAkpu khet-pu-mim del* 1SG potato bring.up-1SG>3SG-NMLZ village 'the village I am bringing potatoes up to'
- (82) *go bʌlʌkpu khet-to-m del* 1SG potato bring.up-1SG>3SG.PST-NMLZ village 'the village I brought potatoes up to/from'
- (83) *go bik-pa del* 1SG come-ACT.PTPC village 'the village I am coming to'
- (84) *bik-ma del* come-PASS.PTCP village 'the village I came to'
- (85) *bAlAkpu lAk-ma del* potato take-PASS.PTCP village 'the village I am taking potatoes to/from'

5.6 Possessive

For a possessive-marked argument, only relativization with -m ((86) and (87)) and -pa (88) is available. Furthermore, there are additional constraints when the verb is transitive (89): only -m can be used then, as the finite nature of the verb makes clear the argument structure; relativization in -pa would lead to the head noun being interpreted as an agent, as in (90).

(86)	<i>basta</i> yesterc	lay	<i>najime</i> wife	e <i>no-da-m</i> be.ill-3sg.pst-r	IMLZ	<i>mʉṯsʉ oram</i> person this	<i>றa</i> INT
	'the ma	in whos	e wife v	was ill yesterda	y is this	one'	
(87)	<i>wotsy si-da-m</i> husband die-3SG.PST-NMLZ 'the woman whose husband died'		n G.PST-NMLZ Isband died'	womar	<i>me:sem</i> 1		
(88)	<i>malo</i> just `the per	<i>nem</i> house rson wł	<i>dzhar-</i> fall.apa nose ho	<i>pa</i> art-ACT.PTCP use fell apart re	<i>mʉtsʉ</i> person cently' ((lit. the just fall	en.apart-house person)
(89)	<i>go</i> 1sg	<i>dzam</i> food	<i>thлk-s</i> hide-в	<i>at-to-m</i> EN-1SG>3SG.PST	-NMLZ	<i>ŋорѕө</i> friend	

'the friend whose food I hid'
(90) *dzam th_Λk-pa* gopsθ

food hide-ACT.PTCP friend *the friend whose food is hidden 'the friend hiding food'

Table 1 sums up the possible relativization strategies for the non-core arguments discussed in section 5.

Table 1. Relativization strategies available for non-core arguments

Suffix	Indirect Object	Locative	Instrumental	Comitative	Ablative/allative	Possessive
-pa	No (interp. as A)	Yes	Yes	No (interp. as A)	Yes	Yes (only for vi)
-ma	Yes (for both G and T arguments)	Yes	Yes	No	Yes	No

-m/- (fo mim arg	Yes r both G and T uments)	Yes	Yes	Yes	Yes	Yes
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Relativization with the standard nominalizer *-m* is clearly the strategy which is most widely available to non-core arguments, without any constraints. As mentioned in the individual subsections, one of the main factors constraining the use of participial relativizers for non-core arguments is that they result in interpretations which pick up a core argument: by virtue of their non-finiteness and the unavailability of agreement markers, participial relativizers make it impossible to disambiguate roles, and when there is a possibility of interpreting the head noun as the A, this strategy is not available.

6. Typological issues

The data presented above is interesting to consider with respect to typological research into relative clauses and their structure, most notably Keenan & Comrie's (1977) accessibility hierarchy. Even though the accessibility hierarchy has been refined since (Lehmann 1986, Fox 1987), it remains a very useful tool, especially for a language with multiple relativization strategies which reveal different alignments. It is mentioned in nearly all discussions of relativization, sometimes as the main bibliographical reference (see for example Whaley 2010: 472), suggesting that, despite its nearly 40-year history, it is foundational to any description of relativization strategies, providing very useful insights. To sum up the well-known theory, Keenan and Comrie propose that arguments which are accessible to relativization in a given language will respect the following hierarchy:

(91) subject > direct object > indirect object > oblique > genitive > object of comparison

The primary relativization strategy of a language will start at the top of the hierarchy, and go partway or all the way down, in a continuous segment, depending on the language. If we look at the three strategies described for Thulung, they are available for relativization on different arguments (relabeled to correspond to the discussion in the relevant sections above) as per table 2:

Suffix	S	А	Р	G/T	Obl	Gen	Obj Comp
-pa	✓	V			mostly yes (depends on type)	✓ (with restrictions)	
-ma			~	1	mostly yes (depends on type)		

Table 2. Overview of relativization strategies for all arguments

-m/-mim	1	1	1	1	1

Table 2 raises a number of issues in terms of the applicability of the accessibility hierarchy to Thulung.

The first point to note is that none of the strategies have a continuous run on the different positions accessible to relativization. Of the two strategies that can relativize on S (-pa and -m)—and according to Keenan and Comrie (1977), relativization on S is a requirement for determining the primary relativization strategy of a language— -pa does not cover P or G/T; -m does not cover A.

A great many linguists have mentioned the constraint on relativization in ergative languages. Among them, Creissels (2006: 215) notes that "dans les langues à alignement ergatif, il peut arriver que le sujet des constructions transitives ne soit pas relativisable".⁸ The accessibility hierarchy has been reworked to allow for strategies relativizing on S and A, on the one hand, and S and P, being the primary ones used in a language (Lehmann 1986, Fox 1987): Lehmann has subject/absolutive at the top of the hierarchy, followed by direct object/ergative. And according to Fox, languages, if they can relativize at all, must be able to relativize on S and P—with an absolutive alignment.

What we find in Thulung is that -*pa* and -*m* strategies in Thulung are accessing different alignments: the -*m* strategy follows an absolutive alignment, making it possible to relativize on S and P (but not A), while the -*pa* strategy makes it possible to relativize on S and A (but not P).

Another interesting insight from Lehmann 1986 is the idea that prenominal RC's are more likely to be nominalized—the Thulung data certainly supports this: all types of RC's are prenominal, and all are very much nominalized, using either an actual nominalizer (-*m*) to achieve relativization, or a participial strategy (with all this implies about the nominalization of the clause, in terms of constraints on tense marking). Lehmann shows that "the degree of nominalization of a RC correlates with [...] its achievement on the hierarchy of syntactic functions" (1986: 672): "the more a RC is nominalized, the less it can systematically make various syntactic functions available for relativization". Yet what we see from Table 2 is that both principal (in other words those accessing S) Thulung relativization strategies, despite being nominalized, do very well in terms of allowing access to multiple positions. Nonetheless, -*m* indeed fares better than -*pa*, as might be expected insofar as -*m* is used to relativize a finite clause, which due to its preserved person/tense indexation, can be seen as more verbal (and less nominalized) than the participial clauses resulting from relativization with -*pa* (which indeed allow less access to positions on the hierarchy, as would be expected.

An issue of great interest with respect to strategies for relativization is Thulung's split system in terms of its case marking: ergative marking occurs on A's that are 2PL⁹ and 3 person, and the other persons are unmarked when in the A role (see Lahaussois 2003b). Nonetheless, all head nouns, regardless of person/number, and their position with respect to the split case marking system, undergo the restriction on relativization with -*m* when they are in an A role. Whether or not it takes ergative case marking, no A is accessible for relativization with -m. In other words, relativization strategies tap into different alignments from morphological marking of case.

Interestingly, another Kiranti language, Yakkha, has the same distribution of relativization strategies over core arguments: a nominalizer -*khuba* is used for S and A (and which is the only strategy available for A relativization), and two nominalizers, one singular and the other non-

⁸ "In languages with ergative alignment, it is possible to find situations where the subject of transitive constructions cannot be relativized upon."

⁹It seems likely that the split was originally between 1, 2 on the one hand and 3 on the other, but shifted 'upwards' based on the influence of Nepali and pressure to create, from the 2PL pronoun, a 2sG polite pronoun form, resulting in the creation of a new plural marked 2PL pronoun.

singular, *=na* and *=ha* respectively, used for, among other things, relativization of S and P as well as of other core and non-core arguments (including G and T) (Schackow 2015: 407-411). Like Thulung, Yakkha has a split ergative system, whereby 1st and 2nd person are nominative marked when A, and 3rd person is ergative marked when A (Schackow 2015: 129). In other words, we find a very close match between the situations in the two languages, with regards to morphological marking and to relativization strategies, even though closer languages to Yakkha are much freer in the use of nominalizers with respect to grammatical relations (Schackow 2015: 408).

Conclusion

In this article, I have presented the three relativization strategies available for Thulung. These are a nominalizer -m and two participial markers -pa and -ma. All three have different distributions, depending on the argument of the head noun of the relative clause. The two strategies which are used to relativize on S are -m and -pa, but the former cannot be used to relativize on A's, while the latter cannot be used to relativize on P's. Neither of these two strategies therefore can be used on a continuous run of Keenan and Comrie's accessibility hierarchy, yet both tap into different alignments: an absolutive alignment for -m, and an ergative alignment for -pa.

An issue of considerable interest was that of the mapping of relativization strategies onto case marking in Thulung. Despite Thulung's having ergative case marking with a person-based split, all persons were treated the same by the available relativizing strategies. Concurrently, it was found that even though Thulung has two types of ditransitive verbs in terms of agreement marking (one type marking A and T on transitive verbs, the other A and G), the case marking of G and T is the same for both verb classes (a primary object case alignment), with relativization strategies matching this alignment: both G and T were accessible to relativization using the same strategies, these in turn matching the strategies for P.

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Abbreviations

ACT.PASS active participle conjunction CONJ CONT continuative CONTR contrastive DE dual exclusive DO direct object HS hearsav intensifier INT indirect object Ю

IP O	bject of comparison
0	nomatopeion
ср р	assive participle
plural ex	clusive
plural ind	clusive
temporal	
agent x a	cting on patient Y
	IP o O CP p plural ex plural ind temporal agent X a

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