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Koyi Rai: An initial grammatical sketch^{*}

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Introduction

Koyi Rai is a previously undescribed language of the Kiranti group of the Himalayan branch of Tibeto-Burman. Koyi, also referred to by speakers as Koyu or Kohi, is spoken in the Khotang district in Eastern Nepal, near the headwaters of the Rawa Khola, in the villages of Sungdel and, to a lesser extent, Dipsung. There are also some speakers in the villages of Lethang and Bharauli in the Tarai. My work was carried out in the Kathmandu Valley, political conditions at the time (2004) not being well-suited to fieldwork in the villages. There are said to be 2~3000 speakers.

According to van Driem (2001: 711), the homeland of the Koyi is the Upper Dudh Kosi area, along with Khaling and Dumi, and the languages share a subgrouping: "Kohi [sic], Dumi and Khaling show shared phonological innovations ...". Koyi appears to be quite distinct from Dumi, despite rumors of mutual intelligibility (van Driem 2001: 711). There are a number of lexical similarities between the two languages (despite rather different phonological inventories), but many morphological markers are different.

Michailovsky's (MS c) initial reconstruction work on the Kiranti languages suggests that the same sound change which distinguishes Thulung from other Western and Central Kiranti languages is also found in Koyi. This sound change is *p > b, and is found in only these two languages among those which are geographically close, the reflex in Hayu, Bahing, Sunwar, Dumi and Khaling being p. The following set exemplifies the initial b in Thulung and Koyi: 'flower' Hayu *puŋmi*, Bahing p^hug , Sunwar p^hu , Dumi *puma*, Khaling *pungme*, but Thulung *buŋma* and Koyi *buwa*.

Clearly, Kiranti subgrouping and the position of Koyi remain to be clarified.

1 Phonology

1.1 Syllable structure

(Ci) (G) V (Cf)

where Ci and Cf represent initial and final consonants, and G represents glides.

The class of possible glides contains only j and w. Koyi does not like clusters with lateral glides, and where they are historically attested for Kiranti languages, they are broken up in the corresponding Koyi cognates:

*kli 'feces' becomes k^{hil} in Koyi (but k^{hli} in Thulung)

^{*} The research on which this paper is based was carried out under the auspices of a documentation grant from the Hans Rausing Endangered Language Documentation Project based at SOAS. The address for the digital Koyi corpus can be found in the bibliography. Gloss abbreviations are given at the end of the paper.

I am greatly indebted to the Koyi community in Kathmandu for helping me in these initial attempts at learning their language, especially Phanindra Koyu Rai, who provided most of the material in my corpus.

I would also like to thank Raja Drissi, of CNRS, for enabling the writing of this paper.

The only instance found of an initial cluster with lateral glide is *kripa* 'cricket' which, given its probable onomatopeic origin, should be considered exceptional.

1.2 Consonants

1.2.1	Initial consonants						
	k	$\mathbf{k}^{\mathbf{h}}$	g	g^{h}	ŋ		
	ts	ts ^h	dz	$d \! z^{ m h}$			
	t	t ^h	d	d^{h}	n		
	р	p^{h}	b	b^{h}	m		
	S	h	r	1			

Voicing is phonemic, as is aspiration.

1.2.2 Final consonants

k	ŋ	
(t)	n	
р	m	
?		
S	r	1

As can be seen from the table of Cf's, Koyi does not have aspirated or voiced stops syllable-finally. Where there is a voiced segment syllable-finally, this is through voicing assimilation with the following segment:

/kupdika/ [kubdika] 'today plus 5 days', /lupdika/ [lubdika] 'today plus 4 days'

Of these final consonants, all can occur word-finally except for t, which can only occur syllable-finally within a word.

1.3 Vowels

Koyi has 6 distinctive vowels, as well as 3 diphthongs. The vowels are as follows:

i e a o o u

There does not appear to be distinctive vowel length. This point remains to be investigated further. For very common nouns, like nu 'nose' and nu 'name', attempts seem to be made to differentiate the two, sometimes with length. It is possible that this reflects an earlier tone distinction, which has now been lost.

Three diphthongs are found:

- ai *b^hai?mu* 'to shout, vt' , *jai?mu* 'to like', *d^hai?lo* 'then'
- si *b^hoi?mu* 'to tie', *oi?mu* 'return' *hoi?mo* 'how'
- ui *bui?mu* 'to boil', *lui?mu* 'to tell', *b^hui* 'ash'

The diphthongs above are sparsely found in non-verbal elements, but by far the majority of attestations are in infinitive forms of verbs, reflecting the influence of an older dental final on the verb stem (Michailovsky, personal communication). In fact, *ui*, which might otherwise be

thought of as glide w + i is instead interpreted as a diphthong to avoid losing information about the verb's base vowel.

1.4 Glides

The glides in Koyi are *j* and *w*. Glide plus vowel combinations can occur word-initially.

2 Nominal/non-verbal morphology

2.1 Pronouns

Koyi, like other Kiranti languages, has dual pronouns in addition to singular and plural, and also has an inclusive/exclusive distinction. The absolutive forms of the pronouns are given in Table 1. Also listed in the table are the contracted ergative forms which exist only for certain pronouns (1SG, 2SG and 3SG), and possessive prefixes and possessive pronouns, which also only exist for a subset of the pronoun class.¹

	ABSOLUTIVE	ERGATIVE	POSSSESSIVE PREFIX	POSSESSIVE PRONOUN
1SG	aŋ	ађа	a/ɔ	aŋu/aŋɔ
1DI	intsi			
1DE	ontsu			
1PI	iŋki			
1PE	əŋkə			
2SG	an	ana	a	anu/ano
2DU	antsi			
2PL	ani			
3SG	um	uma	a	ana/anɔ
3SG	umu	uma	a	ana/anɔ
3DU	umnusi ²			
3PL	umtso?o/umtso			

Table 1. Pronouns

2.2 Demonstratives

ido 'this'

jam 'that'

The 3SG pronouns, umu and um, are also use as distal demonstratives.

2.3 Interrogatives

səmə	'what'
halo	'when'
gopa	'where'

¹ For pronouns whose ergative and possessive forms are not found in Table 1, they are formed by using the pronoun and the ergative (-*wa* or -*ja*) or possessive (-*n* ϑ) markers. The contracted ergative and possessive pronouns, where they exist, are glossed '.ERG' and '.POSS' to distinguish them from the analytical forms.

 $^{^{2}}$ Occasionally (always in narrative) *untsi* is found for the 3DU. This seems to be through analogy with the 1DI and the 2DU forms.

asu	'who'
haka	'why'
həi?mo	'how'

2.4 Number and classifiers

1	uk	11	ukuk
2	sək	12	uksok
3	rek	13	ukrek
4	tum	20	sokso, sopuso ³
5	ŋa	21	sokuk
6	mu	30	rekso
7	suk	31	rekuk
8	um	100	tikso/uksoo
9	nu		
10	uksə		

The classifier system is very limited, and was presumably more complex at an earlier stage. Currently, the use of a classifier is completely generic, with no specifications according to semantic (or other) class of the counted objects. For 'one' and 'two', the forms are *oko* '1.CL' and *sopu* '2.CL'. For 'three', there is a choice of *-pu* or *-wo* as the classifier, *-wo* being the generic classifier used with numbers 'three' and beyond. However, the use of the classifier is not required from 'three' on, as seen in (1).

(1)	rek	tsi-tsə	ts ^h ə?-ni	ts ^h a
	three	child-PLU	become-3PL.PST	HS
	'He ha	ad three childr	en.'	

2.5 Adjectives/Color terms

There are only a few lexical adjectives. Some appear to be derived from verbs, being formed with the participial suffix -pa; they are treated as adjectives because the verbs from which they are derived are no longer found in the language. Adjectives precede the nouns they modify, as in (2) and (3).

³ The variants for 20 came up in different circumstances: one, sokso, I elicited, whereas the other, sopuso, came up in a story when someone was telling me his age. It looks like so might be a nominal meaning "10 unit" (*ukso* '10', sokso '20', *tikso* '100'), which would explain the use of the classifier form in the sopuso variant, ie so-pu so='2-CL decimal unit'.

k ^h ai?pa	1		ʻt	oad'	
k ^h anu?	pa		'g	good'	
hopa			't	all'	
g ^h 3lpa			ʻł	oig'	
tsurso/t	s ^h unto/t	ts ^h ursan	1 's	small'	
gəldək			's	slow, lazy'	
malam	su		ʻf	ast'	
tsanom			't	asty'	
(2)	<i>aŋu</i> 1SG.P0 'He loo	OSS oked at 1	<i>k^hanu?pa</i> good my good o	clothes.'	<i>d^hok^hod-a</i> look-3SG/3SG.PST
(3)	<i>jam</i> that 'that bi	<i>hopa</i> big g tree'	sə tree		

In other cases, as in (4), the adjective is part of the predicate.

(4) *anu kim g^holpa go-di* 1SG.POSS house big be.inan-3SG.NPST 'My house is big.'

Considering the limitations of the adjective category, most adjectival notions are expressed through predicates.

(5) *birəm duwa-ŋa rap^h-e* chili very-INT be.spicy-3SG.NPST 'The chili is very spicy.'

Color termsmosukulu'black'selempo'green'hilap'red'rubaru'white' $p^{h}ebu$ 'yellow'

As with the adjectives above, when a copula is used for existential predication, the color term is part of the predicate unit.

(6)	aŋɔ	dosan	n məsukulu	go-di
	1SG.POSS	hair	black	be.inan-3SG.NPST
	'My hair is b	lack.'		

2.6 Case marking

Koyi has an ergative-absolutive case system, unconditioned by tense or person. All pronoun agents in a transitive structure are marked with the ergative (either in their contracted forms, given in Table 1, or marked with -wa, with allomorph -ja sometimes occurring with *i*-final words). This can be seen in (7), where the absolutive form of the pronoun is blocked.

(7)	umu-wa/*umu dza	dza/dza-da
	3SG-ERG/*3SG rice	eat.3SG.PST/eat-3SG.NPST
	'He eat(s)/ate rice.'	

Nominals, on the other hand, are optionally marked, even when animate, as seen in (8) and (9).⁴

(8)	mintsuma(-wa)	kim-bi	dza	dza-da
	woman(-ERG)	house-LOC	rice	eat-3SG.NPST
	'The woman eats	rice at home.'		

(9)	aŋu	mama(-wa)	dza	dza –
	1SG.POSS	mother(-ERG)	rice	eat.3SG.PST
	'My mother	ate rice.'		

The ergative is however always used with nominals when it is necessary to disambiguate the grammatical roles of various nouns in a sentence, such as 'river' in the dependent clause in (10).

(10)	<i>d^hanɔ</i> then	<i>ађа</i> 1SG.ERG	[<i>k^ha-wa</i> [river-ERG	<i>g^hud-u-m</i> bring.down-3SG/3SG.PST-NOM	<i>sɔ</i>] wood]
	<i>lam-ui</i> search	<i>7a</i> -1SG/3SG.PS	Т		
		T 1 1 C	1.1 1	1 1.1 1	

'Then I searched for wood the river brought down.'

The 'dative' *-lai* (borrowed from Nepali) is sometimes used to mark the direct or indirect object, although the marker is never seen in elicitation (where sentences tend to be simpler). More details are given on transitivity marking in section 4.1.2.

Other common case markers include the following:

Locative: -bi

(11) g^h m tsok-bi
which (chowk)-LOC
'What area [does he live] in?'

⁴ This pattern is what emerges from elicitation sessions, where agent nominals optionally take the ergative marking in sentences where participant roles are straightforward. This optional marking on nominals has nothing to do with the tense of the sentence. When sentences are proposed to speakers with absolutive agent pronouns, they are judged to be ungrammatical. A corpus investigation confirms this pattern, but less clearly, presumably because of the realities of speech production, with false starts and syntax rearranged on the fly. The statistical occurrence of this optional agent nominal marking will be investigated further in the field.

Ablative: -bika, -logka or -ka (where -bika is derived from the locative -bi, and -logka is presumably derived, as in many other Kiranti languages, from the word *lam* 'path')

- (12) *dumluku-bika hɔbats-akɔ* Dumluku-ABL arrive-1PE.PST 'We arrived from Dumluku.'
- (13) sodel-loŋka g^huk-tsu-m Sodel-ABL come.down-1SG.PST-NOM 'I came down from Sodel.'

Allative: -*lom*

(14) *ninambu-lsm sin-u* sky-ALL look-3SG/3SG.PST 'She looked towards the sky.'

Comitative: -k3

(15) *mama najo?ma-ko go-di-m ts^ha* Mother Nayoma-COM be-3SG.PST-NOM HS 'Mother was with Nayoma.'

Genitive: -*no*, as seen below.

2.7 Possession

2.7.1 Pronominal possession

To express pronominal possession, a few possibilities exist: for certain pronouns (1SG, 2SG and 3SG; see Table 1), a speaker can use possessive prefixes, possessive pronouns, or both in combination.

There doesn't seem to be a distinction between the different ways to express pronominal possession in terms of semantic category of the possessed. With both possessive prefixes and possessive pronouns, we find inalienable as well as alienable nouns⁵.

The possessive prefix has two interchangeable forms for the 1SG (a/a), and one of those forms (a) is the same as the possessive prefix for 2SG and 3SG, making them indistinguishable in certain situations (see for example (16)). It seems then that the prefix indicates that some type of possession is occurring, leaving its specification to context.

⁵ This said, the distinction between the two is sometimes difficult to sort out: many of the possessed nouns could be interpreted as being inalienable, within the specific cultural and narrative context: *a-buwa*, 2POSS-flower, seems clearly alienable, except that in this particular story, the flower represents the possessor's life (when the physical flower withers, that signifies that its possessor has died).

 (16) *a-kim* (from separate examples in the corpus) 1POSS-house/2POSS-house/3POSS-house 'my/your/his~her house'

The distinctions between the possessive pronouns are also neutralized in some of the forms for 2SG and 3SG: these can both occur as *ano* (in addition to *anu* and *ana* respectively), which again implies that context is crucial for disambiguation. (17) through (20) show the existing possessive pronouns with a possessed noun.

- (17) *aŋu nuwa* 1SG.POSS mind 'my mind'
- (18) *anu laluk^ha* 2SG.POSS lover 'your lover'
- (19) *ana rilip^hu* 3SG.POSS arrow 'his arrow'

The possessive prefix and possessive pronoun can also be used in combination, as in (20).

(20) *aŋɔ a-waʔriwa* 1SG.POSS 1POSS-behavior 'my behavior'

For other pronouns, for which there are no possessive prefixes or possessive pronouns (namely dual and plural forms), there are two ways to express a possessive. A speaker can use the relevant absolutive pronoun, with a genitive marker (*-no*), followed by the possessed noun (as in (21)). Or the speaker can simply appose the absolutive form of the pronoun and the possessed noun, with no markers (as in (22)). Apposition is the approach found most frequently in a corpus survey, whereas elicitation favors genitive marking.

- (21) *intsi-no same* 1DI-GEN clan 'our clan'
- (22) *intsi boktsi* 1DI younger.sibling 'our younger sibling'

2.7.2 Possession by other nominals

The genitive marker $-n\sigma$ is used to mark possession by animate beings.

(23) *k^hiba-no silu* dog-GEN bone 'the dog's bone'

The genitive is not used when the possessor is inanimate (although a few exceptions to this rule are found in the corpus), and possession is then expressed with a nominalized locative following the possessor, as in (24).

(24)	del-bi-m	haŋbu
	village-LOC-NOM	chief
	'the village chief'	
	(* <i>del-nɔ haŋbu</i>)	

3 Verbal morphology

3.1 Person/number agreement

Koyi, typically of Kiranti languages, has complex paradigms of verbal endings encoding the person, number and tense of the single argument of intransitives or of two arguments (the most agent- and patient-like⁶) for transitives.

3.1.1 Intransitive verb endings

The forms in Table 2 are the endings for intransitive verbs. With open verb stems, the vowel-initial endings drop their initial vowels.

	NPST	PST
1SG	tə	tsu
1DI	isi	asi
1DE	isu	asu
1PI	iki	aki
1PE	eko	ako
2SG	ena	ana
2DU	isina	asina
2PL	ini	ani
3SG	e	a
3DU	isi	asi
3PL	ini	ani

Table 2. Intransitive endings

3.1.2. Transitive endings

Tables 3 and 4 give non-past and past transitive endings, respectively. Note that the vertical column is the Agent, the horizontal row is the Patient. Thus to conjugate a verb for a 1SG Agent and 2DU Patient in the non-past, one takes the appropriate stem (see section on verb stems below), then finds the 1SG row in the first table below, and finds the ending which appears where the 1SG row crosses the 2DU Patient column. The column with 3SG Patients is

⁶ For simplicity, these two arguments will be referred to throughout as the Agent and Patient.

highlighted, as these are the most commonly occurring endings (as all inanimate Patients are treated as 3rd persons).

NPST	1SG	1DI	1DE	1PI	1PE	2SG	2DU	2PL	3SG	3DU	3PL
1SG						ne	nisi	nini	do	dəsu	dənu
							nusi				
1DE						isu	isu	isu	isu	isu	isu
									esu		
1DI									isi	isi	isi
									esi		
1PE						eko	eko	eko	eko	eko	eko
1PI									iki	iki	iki
									eki		
2SG	tana		isina		ekona				dana	dasina	dana
	tona		isuna								
2DU	təsuna		isina		ekona				isina	isina	isina
			isuna								
2PL	tonu		ekona		ekona				ini	ini	ini
	təni										
3SG	to	isi	isu	iki	eko	ena	isina	ini	da	dasi	dani
3DU	təsu	isi	isu	iki	eko	ena	isina	ini	dasi	dasi	dasi
	təsi										dani
3PL	tonu	isi	isu	iki	eko	ena	isina	ini	dani	dani	dani

As with intransitive endings, vowel-initial endings drop their initial vowel in open stems.

Table 3. Non-past transitive endings

PST	1SG	1DI	1DE	1PI	1PE	2SG	2DU	2PL	3SG	3DU	3PL
1SG						na	nasi	nani	uŋa	uŋasu usiŋa	uŋanu
1DE						asu	asu	asu	asu	asu	asu
1DI									asi	asi	asi
1PE						əkə	əkə	əkə	oko	oko	oko
									ako		
1PI									aki	aki	aki
2SG	tsuna								una	una	una
										usina	
2DU	tsusuna								asina	asina	asina
									usina		
2PL	tsunu								ani	ani	ani
	tsuni										
3SG	tsu	asi	asu	aki	əkə	ana	asina	ni	u	usi	uni
(2SG								ani	a		
IMP)									Ø		
									di		
3DU	tsusu	asi	asu	aki	əkə	ana	asina	ani	usi	usi	usi
(2DU	tsusi										uni
IMP)											
3PL	tənu	asi	asu	aki	əkə	ana	asina	ani	uni	uni	uni
(2PL	tsuni										
IMP)											

 Table 4. Past transitive endings

3.2 Stems

The basic structure of a Kiranti verb is (C)V(C), to which verb endings and other optional augmenting material (see section 3.6) are added.

Many Koyi verbs have a number of different stems, with stem alternation occurring in the stem vowel, stem final, or both. This is illustrated with the following sets of verbs, with three different stems occurring for 'to know', and three for 'to laugh'.

ts ^h en-də	know-1SG/3SG.NPST	ri-tsu	laugh-1SG.PST
ts ^h ents-ini	know-2PL/3SG.NPST	rja- di	laugh-3SG.PST
ts ^h end-uni	know-3PL/3SG.PST	re -di	laugh-3SG.NPST

A look at a number of paradigms reveals that these stem patterns are not easy to sort out: they are not purely phonologically induced (as we can see from *rja-di* and *re-di*, where the same ending occurs with different stems of the same verb); nor are they purely morphosyntactically induced (there is no clear pattern of past forms having one type of stem and non-past forms having another type). We need to be able to predict which verb stem will occur where.

	Non-Past	Past
1SG	jom -ძა	jəmd -uŋa
1DI	jomts-isi	jomts-asi
1DE	jomts-isu	jomts-asu
1PI	jomts-iki	jomts-aki
1PE	jomts-eko	jomts-ako
2SG	jɔm -dana	jəmd -una
2DU	jomts -isina	jomts-asina
2PL	jomts -ini	jomts-ani
3SG	jəm –da	jəmd -u
3DU	jəm –dasi	jomd-usi
3PL	iom –dani	iomd-uni

Table 5. *jommu* 'to hit' (with default 3SG patient)

The data in Table 5 suggests that there is in fact a pattern, as shown by the different colored cells (each color corresponds to a stem). For *jommu* in Table 5, the basic pattern looks something like this: when the verb ending begins with a consonant, the stem is *jom-*; when the verb ending begins with a vowel, the stem is *jomts-*, except that sometimes it is *jomd-*..These *jomd-* stem cases are interesting, because they always occur at the same place in the paradigm: with past forms with 1SG, 2SG, and 3SG and 3DU and 3PL agents. These will be discussed further below.

Verb endings, even though there are sometimes alternative forms (see Tables 3 and 4), are stable across all verbs. As a result, we can use the notion of pre-vocalic (pre-V) and pre-consonantal (pre-C) stems: this refers to the fact that a particular stem occurs in a given phonological context, which will be pre-V (if the verb ending begins with a vowel) or pre-C (if the verb ending begins with a consonant). The verb ending used will of course depend on the relevant person/number/tense combination, namely the person and number of the agent (and patient, if relevant), and the tense of verb.

Koyi has what, for our present purposes, I will consider to be three classes of verbs: intransitive, transitive and T-transitive. Intransitive and transitive verb endings pattern differently in terms of whether they are vowel- or consonant-initial (see Tables 2, 3 and 4), the result being that pre-V and pre-C stems are distributed differently across the paradigms. For our intransitive and transitive verb classes, this is therefore a fairly simple distribution.

Things become more complicated when we consider the T-transitive class (this notion and term taken from Michailovsky (MS a and b)). The verb *jommu* in Table 5 is a T-transitive verb, and it is in this class of verb that stem alternation patterns move beyond the phonologically-induced.

T-transitive verbs are those where an extra suffix (which is dental throughout Kiranti, hence the label 'T' for the underlying dental form) appears on the verb base. Where things get interesting is that this dental suffix (which is always a d in Koyi) only surfaces at certain predictable places within the verb paradigm.

These predictable places within the paradigm correspond to specific person/number/tense combinations, which have been labelled 'direct scenarios' (Michailovksy MS a and b). These are scenarios where the Agent is higher ranked than the Patient, in a person hierarchy. As we can see from Table 5 (the dark grey cells are those that are relevant, with the extra dental suffix appearing

on the stems), this corresponds to 1SG Agents acting on 3^{rd} -person Patients, 2SG Agents acting on 3^{rd} -person Patients, and any 3^{rd} -person Agent acting on a lower ranked 3^{rd} -person Patient (respecting the number hierarchy of SG>DU>PL). Thus to figure out where different stems will occur with a T-transitive verb, we need to take into account not only the phonological context provided by the endings (with pre-V and pre-C stems) but also whether the relevant person/number/combination corresponds to a direct scenario (in which case, the stem will also feature a *d* suffix), which we can call 'direct pre-V' stems.

3.2.1 Stem final alternations

Tables 6, 7 and 8 lay out the stem final alternations for intransitives, transitives, and T transitives, respectively. The tables below list the verb base final that occurs on the stem of verbs within that category, and the appropriate person/number/tense endings then determine whether stem which occurs is pre-V, pre-C or direct pre-V. The appropriate endings are then added to the stem for a "conjugated" verb.

Verb-Base Final	Pre-V	Pre-C	Verbs (in infinitive form)
open	Ø	Ø	mumu 'be (anim)'; humu 'come'; lumu 'feel'; numu
			'be good'; <i>gumu</i> 'be (inan.)'; <i>homu</i> 'climb'; <i>huk^homu</i>
			'arrive up'; <i>t^hi-mu</i> 'fall'; <i>g^himu</i> 'rot'; <i>kimu</i> 'rot'; <i>rimu</i>
			'laugh'; <i>simu</i> 'mature'; <i>lomt^himu</i> 'walk'; <i>ts^hismu</i>
			'regain consciousness'; hulemu 'arrive'
р	p ^h /pts	р	ipmu 'sleep'; tsapmu 'be able'; rapmu 'be spicy';
			jupmu 'be thin'; dzupmu 'be nice'; repmu 'stand';
			<i>supmu</i> 'be full'
t	ts/?/Ø	t/?/Ø	<i>hubai?mu</i> 'reach'; <i>p^hu?mu</i> 'wake up'; <i>p^hu?mu</i> 'break';
			<i>nje?mu</i> 'be sick'; <i>mi?mu</i> 'die'; <i>b^hi?mu</i> 'come';
			<i>d</i> ^{<i>h</i>} <i>i?mu</i> 'be wet'; <i>si?mu</i> 'be separated'; <i>hai?mu</i> 'burn';
			<i>hɔ?mu</i> 'open'; <i>k^hɔi?mu</i> 'go'; <i>b^hɔi?mu</i> 'shout'
k ⁷	?/Ø	k/_dentals	hug ^h u?mu 'arrive down'; b ^h a?mu 'feel like'; jo?mu
		? elsewhere	'act like'; <i>ts^hu?mu</i> 'become'; <i>g^hu?mu</i> 'come'; <i>b^hi?mu</i>
			'come'; <i>ŋo?mu</i> 'cry'
m	m	m	<i>ts^hum-mu</i> 'dance'; <i>dz^hammu</i> 'be dizzy'; <i>tsammu</i> 'lose';
			nummu 'give off smell'; tummu 'appear'
n	(n)ts	n	<i>lonmu</i> 'ascend'; <i>tanmu</i> 'descend'; <i>t^hinmu</i> 'be created';
			<i>minmu</i> 'cook'; <i>tsonmu</i> 'escape'; <i>k^honmu</i> 'be respectful
			of'; <i>hulonmu</i> 'arrive up'; <i>sonmu</i> 'lie'
ŋ	ŋ	Ø	<i>homu</i> 'dry'; <i>k^homu</i> 'come up'; <i>homu</i> 'enter'
r	r	r	b ^h ermu 'fly'; pirmu 'hide'; njermu 'finish'; nurmu
			'snore'; <i>hermu</i> 'be angry'
1	1	1	<i>b^hulmu</i> 'run'
S	Ø	S	<i>d</i> ^{<i>h</i>} <i>ismu</i> 'smile'

With intransitive verbs, there are two possible stems: pre-C and pre-V.

Table 6. Intransitive stem finals

⁷ The distinction between k and t bases was made on a rather simplistic basis: when a k appeared in the paradigm, it was assumed the base was k-final; otherwise, the verb was put in the t-final base class.

Verb-Base	Pre-V	Pre-C	Direct	Verbs (in infinitive form)
Final			Pre-V	
open	Ø	n/_1SG NPST, some 1SG PST; Øelsewhere	Ø	<i>mumu</i> 'do'; <i>bimu</i> 'give'; <i>dzimu</i> 'eat'; <i>pimu</i> 'eat'; <i>dimu</i> 'place'; <i>b^himu</i> 'make'; <i>p^himu</i> 'beg'; <i>b^himu</i> 'weave'
р	pts	p	p ^h	<i>d^hupmu</i> 'make music'; <i>opmu</i> 'shoot'; <i>sapmu</i> 'divert water'; <i>ts^hopmu</i> 'roast'; <i>d^hupmu</i> 'earn'; <i>k^hapmu</i> 'put on fire'
t	ts	t/_k; ?/Ø elsewhere	ts/?/ Ø	<i>k^hɔi?mu</i> 'bring away'; <i>lu?mu</i> 'tell'; <i>le?mu</i> 'plant'; <i>le?mu</i> 'leave'; <i>se?mu</i> 'kill'; <i>b^he?mu</i> 'pick'; <i>si?mu</i> 'leave'; <i>b^hi?mu</i> 'bring'; <i>jai?mu</i> 'like'; <i>kai?mu</i> 'bite'; <i>hai?mu</i> 'burn'; <i>wai?mu</i> 'give birth'; <i>tsoi?mu</i> 'tease'; <i>d^hi?mu</i> 'find'
k	k/kts	k/_dentals k/? elsewhere	k/?	<i>kukmu</i> 'understand'; <i>kɔʔmu</i> 'cut cane'; <i>b^huʔmu</i> , 'give birth'; <i>p^hɔp^huʔmu</i> 'build'; <i>tsukmu</i> 'knead'; <i>luʔmu</i> 'stir'; <i>pikmu</i> 'hang'; <i>sikmu</i> 'put on stick'; <i>ukmu</i> 'scoop up liquid'
m	m	m	m	<i>lammu</i> 'search for'; <i>tummu</i> 'find'; <i>hummu</i> 'drop'; <i>d^hummu</i> 'meet'; <i>tsamu</i> 'forget'; <i>nummu</i> 'smell'; <i>tsummu</i> 'split wood'
n	n/nts	n	n	senmu 'look'; runmu 'sift'; kanmu 'spill'
ŋ	ŋ	n/_dentals Ø elsewhere	ŋ	<i>dumu</i> 'drink'; <i>d^hɔmu</i> 'crush'; <i>pomu</i> 'dress someone'; <i>sɔmu</i> 'pick'; <i>p^hiŋmu</i> 'send'
r	r	r	r	<i>njermu</i> 'finish'
1	1	1	1	<i>jalmu</i> 'mash'
S	s/Ø ⁸	S	s	<i>b^husmu</i> 'dry clothes'; <i>ŋismu</i> 'listen'; <i>d^hasmu</i> 'dig'; <i>ts^hismu</i> 'press'; <i>k^humu</i> 'steal'

In the case of transitives, verbs can have up to three stems, corresponding to pre-V, pre-C, and direct pre-V contexts, which is occasionally distinct from pre-V.

 Table 7. Transitive stem finals

For T-transitives, verbs have up to three stems, with the same categories as for "simple" transitives, except that the direct pre-V stem is always marked by having an extra, postfinal d (this being the definition of the T-transitive category).

⁸ The stems that become open in pre-V environments also have vowel alternation.

Verb-Base Final	Pre-V	Pre-C	Direct Pre-V	Verbs (in infinitive form)
open	ts	Ø	d	<i>k^homu</i> 'bring up'
p	pts/p	р	pd	<i>dipmu</i> 'apply'; <i>tsapmu</i> 'be able'; <i>k^hipmu</i> 'cook'; <i>kɔpmu</i> 'dress'; <i>mapmu</i> 'err'; <i>hepmu</i> 'embrace'; <i>lɔpmu</i> 'catch'; <i>d^hepmu</i> 'cover'; <i>repmu</i> 'respect'; <i>p^hapmu</i> 'err'
t	ts	?/Ø	?d/d	<i>d^ho?mu</i> 'find'; <i>tsju?mu</i> 'stand on all fours'; <i>t^ho?mu</i> 'build'; <i>jo?mu</i> 'spread'; <i>k^hirejo?mu</i> 'promise'
k	kts	k/?/Ø	?d/d	<i>jo?mu</i> 'feed'; <i>ru?bu?mu</i> 'reach very high'; <i>tumto?mu</i> 'know'; <i>g^hu?mu</i> 'bring down'; <i>k^ho?mu</i> 'cut'; <i>tsju?mu</i> 'know'; <i>hug^hu?mu</i> 'bring down'
m	mts	m	md	<i>jommu</i> 'hit'; <i>ts^hemmu</i> 'stick'; <i>p^hammu</i> 'scratch'; <i>k^hummu</i> 'bury'; <i>tsemmu</i> 'play'; <i>mommu</i> 'surround'; <i>k^hommu</i> 'discover'
n	nts	n	nd	<i>lenmu</i> 'transfer'; <i>t^hinmu</i> 'create'; <i>b^hunmu</i> 'scold'; <i>minmu</i> 'remember'; <i>munmu</i> 'establish'; <i>k^honmu</i> 'respect'; <i>donmu</i> 'unite'; <i>p^hinmu</i> 'stretch'; <i>kinmu</i> 'stretch'; <i>ts^henmu</i> 'recognize'; <i>inmu</i> 'sell'; <i>p^hanmu</i> 'fail'; <i>b^hunmu</i> 'scold'
ŋ				none
r	r	r	rd	warmu 'throw'
1				none
S				none

Table 8. T-transitive stem finals

The basic patterns emerging from the charts above are the following:

- Pre-C stems: same final as the verb base
- Pre-V stems: base final with, for plosives, affrication or aspiration (nasals are also sometimes affricated)
- Direct pre-V stems (for T-transitives): *d* after the base final.

3.2.2 Stem vowel alternation

Some verbs show vowel alternation in their stems. Whether or not a verb has an alternating vowel in its stem seems to be related to the historical base vowel. For those verbs which do alternate, Tables 9 (for intransitive verbs) and 10 (for transitive verbs) lay out the different stem vowels, according to the ending-induced environment which triggers these alternations.

For intransitives, there are three stem possibilities: pre-C, non-past pre-V and past pre-V.

Pre-C	Non-Past Pre-V	Past Pre-V	Verbs (in infinitive form)
u	0	Э	mumu 'be (anim)'; hulemu 'arrive'; humu 'come';
			<i>lumu</i> 'feel'; <i>ts^hu?mu</i> 'become'; <i>p^hu?mu</i> 'break';
			hubai?mu 'reach'; gumu 'be (inan.)'; numu 'be
			good'; <i>g^hu?mu</i> 'come down'; <i>hug^hu?mu</i> 'arrive down'
i	e	ja	$t^{h}imu$ 'fall'; $dz^{h}ismu$ 'smile'; $g^{h}imu$ 'rot'; kimu
			'argue'; <i>rimu</i> 'laugh'; <i>simu</i> 'mature'; <i>ts^himu</i> 'regain
			consciousness'; <i>lomt^himu</i> 'walk'; <i>b^hi?mu</i> 'come'
0	u	u	<i>k^homu</i> 'come up'; <i>homu</i> 'enter'
э	u	u	<i>k^hɔi?mu</i> 'go'; <i>ts^hɔmmu</i> 'dance'
Э	a	а	homu 'dry'; ho?mu 'open'
e	i	i	<i>hermu</i> 'be angry'; <i>b^hermu</i> 'fly'; <i>ŋje?mu</i> 'be sick'

 Table 9. Intransitive stem vowels

For transitive verbs, there are up to four possible stems: pre-C, non-past pre-V, past pre-V and direct. Direct is defined as above, but in the case of vowel alternations, the direct scenarios in both non-past and past can trigger a different vowel.

Pre-C	Non-Past Pre-V	Past Pre-V	Direct	Verbs (in infinitive form)
i	e	ja	i	<i>bimu</i> 'give'; <i>ŋismu</i> 'hear'; <i>ts^hismu</i> 'press'
i	e	ja	a	<i>dimu</i> 'place'; <i>pimu</i> 'eat'; <i>b^himu</i> 'weave';
				dzimu 'eat'; b ^h imu 'make'
u	0	э	u	<i>mumu</i> 'do'; <i>k^humu</i> 'steal'; <i>b^husmu</i> 'dry'
oi	u	u	0	<i>k^hɔi?mu</i> 'take away'; <i>hɔi?mu</i> 'bring'; <i>tsɔi?mu</i>
				'tease'
0	u	u	u	<i>pomu</i> 'dress someone'
э	a	a	a	<i>d^homu</i> 'crush'; <i>somu</i> 'pick'; <i>ko?mu</i> 'cut cane'
e	i	i	i	senmu 'see'; njermu 'finish'
e	i	i	e	<i>se?mu</i> 'kill'

 Table 10. Transitive stem vowels

Thus conjugating a Koyi verb involves determining the appropriate person/number/tense ending, using the pre-V, pre-C, direct/direct pre-V criteria of these endings to determine which stem final and stem vowel will occur in the relevant context, and then combining the whole thing.

3.3 Tense and mood

There are two basic tenses in Koyi, non-past and past.

Imperative forms for 2SG, 2DU and 2PL are the same as indicative past forms for 3SG, 3DU and 3PL respectively. With transitive verbs, the forms for 2DU and 2PL agents substitute -a for the -u of the indicative endings.

For intransitive k^h ji?mu 'go' the 2SG, 2DU and 2PL forms are as follows:

k ^h uts-a	go-2SG.IMP (also go-3SG.PST)
k ^h uts-asi	go-2DU.IMP (also go-3DU.PST)
k ^h uts-ani	go-2PL.IMP (also go-3PL.PST)

For transitive kurmu 'carry' the imperative forms are the following.

kur-u	carry-2SG/3SG.IMP
kur-asi	carry-2DU/3SG.IMP (cf kur-usi for indicative 3DU/3SG.PST)
kur-ani	carry-2PL/3SG.IMP (cf kur-uni for indicative 3PL/3SG.PST)
kur-usi	carry-2SG/3DU.IMP
kur-uni	carry-2SG/3PL.IMP

Need and obligation are marked with obligation marker $ts^{h}o$ (see (25)) or the borrowed marker *porjo* (see (26)), both following an infinitive clause.

(25)	a-mampa	d ^h um-di	k ^h əi?-mu	ts ^h o
	1POSS-parents	meet-PURP	go-INF	OBL
	'You must go mee	t my parents.'		

(26) *dzi-mu porjo* eat-INF (OBL) 'You must eat.'

Ability is expressed with the verb ts^hapmu , 'be able to', which takes an infinitive clause as its complement.

(27) *ip^h-a-ba-m* sleep-verb.filler-PROG.3SG.PST-NOM 3SG there-ABL TOP

umtsa? jo kur-mu-no g^hu *?-mu o-tsap-ka* 3PL.ERG also carry-INF-SEQ bring-down-INF NEG-be.able- NPST.PRT 'They were unable to carry and bring down the sleeping one.'

(28) antsi k^h 2*i*?-mu tsap^h-isina 2DU go-INF be.able-2DU/3SG.NPST 'You two can go up there.'

3.4 Aspect

3.4.1 Aspectivizers

Aspect is marked in several ways. One possibility is to affix an "aspectivizer" to the stem, as is common among Kiranti languages. These affixes are more semantically complex than merely encoding aspect, but they are one of the central aspect-marking mechanisms in the language. They are clearly verbal in nature, as several of them have stem alternations like main verbs, but in most cases the verb from which they are grammaticalized is not identifiable.

There are two different ways these aspectivizers are combined with the main verb:

a) The main and "augmenting" stems can be apposed, with the verb ending following the aspectivizer stem.

- (29) *so?wa d^hal-dza* hunger sway-DUR.3SG.PST 'He swayed from hunger.'
- (30) *kuku-tso dz^ha?-ba-ni* uncle-PLU pile.up-PROG-3PL.NPST 'The uncles (=Maoists) are piling up [in the village].'

b) The main and "augmenting" stem can be separated by a 'verb filler', which is a partial verb ending, according to the following formula:

main stem-verb filler-"augmenting" stem-verb ending,

where the filler is the first syllable of the appropriate ending for the main verb. When the main verb ending contains a single syllable, the verb filler replicates it entirely.

(31)	aŋu	papa	mits-a-ŋir-a
	1SG.POSS	father	die-verb.filler-FIN-3SG.PST
	'My father is	dead.'	

- (32) *ts^heku-bi tsem-na-dzi-nasi-m ts^ha* water-LOC play-verb.filler-DUR-3SG.PST.refl-NOM HS 'He was playing in the water.'
- (33) *d^ham biŋ-dɔ-suŋ-dɔ* that give-verb.filler-DEF-1SG/3SG.NPST 'I will give it to him.'

The main aspectivizers found in Koyi are listed in (34) through (42). Many of the terms used for the various aspectivizers are borrowed from van Driem's work on Dumi (van Driem 1993).

Definitive (*su/suts*) 'DEF', signifying that an action is definitively over:

(34)	b ^h andza	se?-su	ts ^h a
	(nephew)	kill-DEF.3SG/3SG.PST	HS
	'[The water] killed the nephew off.'	

Durative (dze/dzja/dzi/dza) 'DUR':

(35) *an ne ip-dzi-tsu ts^ha* 1SG TOP sleep-DUR-1SG.PST HS 'I was sleeping.' End-point focus (*ŋir*) 'FIN':

(36)patsbackets^h3?-ŋir-a-mg3(five o'clock)become-FIN-3SG.PST-NOMbe.inan.3SG.PST'It got to be after 5 o'clock.'be.inan.3SG.PST

Continuous ($t^{h}ats/t^{h}\Im ts/t^{h}\Im d/t^{h}\Im$) 'CONT':

(37) an-ko an $mu-t^ho-do$ 2SG-COM 1SG be-CONT-1SG.NPST 'I will be with you.' [couple deciding to marry]

Ponent (*di*) 'PON', which lends a certain inevitability to the action:

(38) *ana jat-di-tsuna* 2SG.ERG love-PON-2SG/1SG.PST 'You have loved me.' [and so you must now meet my parents...]

Progressive (ba) 'PROG':

(39) $r \circ mb^h \circ ip^h - a - ba - m$ boar sleep-verb.filler-PROG.3SG.PST-NOM meet-3SG/3SG.PST 'He encountered a sleeping boar.'

Perseverative (*bok*) 'PER', when an action is maintained:

(40) *rip-bok-tsu o-no-di* take.shelter-PER-1SG.PST NEG-be.good-3SG.PST 'I continued to take shelter, but it was no use.'

Generic aspect marker (*ak/akts/ektsts*) 'ASP':

(41) mama $k^{h}uts$ -akts-a $ts^{h}a$ mother go-ASP-3SG.PST HS 'Mother left.'

It is unclear what specifically is conveyed by this aspectivizer. In the instances in which it appears, it could be removed without any loss of semantics, yet it "sounds right" to have it.

Benefactive $(k^h n/k^h nd)$ 'BEN' adds the notion that the action is carried out for someone's benefit:

(42)	tsin-tsə	k ^h ələ	hal-k ^h ənd-u	ts ^h a
	beer-PLU	all	spread-BEN-3SG/3SG.PST	HS
	'She had spre	ad out a	ll sorts of beers for him.'	

3.4.2 Perfect

The perfect is formed by nominalizing a finite past verb (with -m) and then adding a copula:

(43) *ana* [*sɔlɔ*] *g^hud-uŋa-m go-di* 1SG [frogs] bring.down-1SG/3SG.PST-NOM be.inan-3SG.NPST 'I have brought down some frogs.'

3.5 Negation

The negative prefixes are \mathcal{P} or a-, used interchangeably. Other than the addition of the prefix, there are no other changes to the verb being negated.

3.6 Composite verb forms

There are several ways that non-simple verbs are formed in Koyi. One of these is by the addition of an aspectivizing stem, as seen in 3.4.1 above. The others are described below.

3.6.1 Increasing valence

This can be done with a valence increasing morpheme, mu. The morpheme is almost certainly related to the verb mumu 'to make'. It is used productively⁹.

(44) *kom-wa du-mo-si* mouth-INSTR drink-CAUS-3DU/3SG.PST 'They made her drink with her mouth.'

3.6.2 Motion verbs

Some motion verbs can be combined together to convey more precise motion. They can also be combined with non-motion verbs to add a directional component to the basic verb.

3.6.2.1 Basic motion verbs

humu 'come' *b^hi?mu* 'come/bring' *g^hu?mu* 'come down/bring down' *k^homu* 'come up/bring up' *k^hoi?mu* 'go/take away' *honmu* 'arrive' *lonmu* 'ascend' *homu* 'climb'

The combined motion verbs all involve a first verb humu 'to come'.

hulonmu 'arrive up' (come+ascend) *hug^hu?mu* 'arrive down' (come+come down)/ 'bring down' (come+bring down) *huk^homu* 'arrive up' (come +come up)

⁹ It was found, in the corpus, with *kurmu* 'to carry' giving 'to cause to bear a child'; *senmu* 'to see' giving 'to show'; $t^{h} \sigma mu$ 'to spread', giving 'to spread out'; *nismu* 'to hear' giving 'to make listen'; $b^{h} ermu$ 'to fly' giving 'to make fly'; *oldrimu* 'to vomit' giving 'to make vomit', and $h \sigma mu$ 'to dry (intr)' giving transitive 'to dry up'.

3.6.2.2 Verb+motion verb combinations

The following combinations were found in the corpus. These are clearly not lexicalized verb compounds, as the focus of the interpretation can vary from one context to the next.

- (45) bi-g^hu?d-usi give-bring.down-3SG/3DU.PST
 'He gave [the comb] to them to bring down.'
- (46) *d^hi-ho-si*find-bring-3DU/3SG.PST
 'They found and brought her there.'
- (47) *bi-ho-si* give-bring-3DU/3DU.PST
 'They brought them the two (as a gift).'
- (48) p^hiŋ-k^hod-u send-bring.up-3SG/3SG.PST
 'She brought him up [ie. he was conveyed up]'
- (49) *l>b-g^hud-u* catch-bring.down-3SG/3SG.PST
 'He caught him.' [and performed the next action at ground level]

3.6.3 Resultative constructions

The combinations of verbs described in (50)-(55), which were all taken from the corpus, have a resultative interpretation.

With *pimu* 'to eat meat' as second verb:

- (50) *tse?-paŋ-dɔ* rip-eat.meat-1SG/3SG.NPST 'I'll rip him up and eat him.'
- (51) *saŋ-pa* pick.up-eat.meat.3SG/3SG.PST 'He picked her up and ate her.'

With *se?mu* 'kill' as a second verb:

(52) *jom-se?* hit-kill.3SG/3SG.PST 'He hit him dead.'

- (53) *kjɔ-se-si* pinch.with.nails-kill-3DU/3SG.PST 'They pinched it dead.'
- (54) sonita pu tsip-sets-a Sonita CONTR crush-kill-3SG.PST 'Sonita was crushed dead.'

With *mi?mu* 'to die', as a second verb

(55) *t^hja-mits-a* fall-die-3SG.PST 'He fell and died.'

4 Syntax

4.1 Basic clause types

4.1.1 Intransitive sentences

As described in section 2.6 on case marking, Koyi is an ergative-absolutive language. The single argument of an intransitive has no overt case marking.

There are two copulas: *mumu*, for animate beings, and *gumu*, for inanimate arguments. Equational predicates do not use copulas, as in (56):

(56)	umu	mintsuma	um-no	mama
	that	woman	3SG-POSS	mother
	'That	woman is his	mother.'	

All other types of predication do.

Locational predication uses the locative marker and a copula, as in (57):

(57)	mulusosi	məlu-bi	go-di
	corn	earth-LOC	be.inan-3SG.NPST
	'The corn is	in the earth.'	

Existential predication uses a copula, as in (58) and (59):

(58)	bjaksupa-nə	tsi-ŋə	sjurime	mə-di-m
	Byaksupa-GEN	child-INT	Sjyurime	be.anim-3SG.NPST-NOM
	'(Once) there was I	Byaksupa's chile	d Syurime.'	

(59) *anu del-bi oko koktumpa mo-di* 1SG.POSS village-LOC one.CL monkey be.anim-3SG.NPST 'There is a monkey in my village.'

Possessive predication is expressed with a comitative case on the possessor (60), or with a possessed noun, followed by the copula (61):

(60)	aŋ-kə	bulu	э-gэ-di
	1SG-COM	money	NEG-be-3SG.NPST
	'I have no mo	oney.'	

(61)	aŋu	mama	mo-di
	1SG.POSS	mother	be.anim-3SG.NPST
	'I have a mo	ther.'	

4.1.2 Transitive sentences

As described in 2.6 above, Koyi is an ergative language: the Agent of transitive sentences is always ergative marked, when it is a pronoun, either using an ergative pronoun, when such exists, or with ergative marker - *wa*. Other nominal Agents are optionally marked.

As in other Kiranti languages (such as Thulung, see Lahaussois 2003), a single grammatical category covers the Patient in monotransitive sentences and the indirect object in ditransitives, namely the Primary Object. Primary object marking (with Nepali loan *-lai*, labelled DAT) is not obligatory, even for human patients. In elicitation contexts, where sentences are fairly simple, *-lai* is rarely used.

(62)	<i>aŋa</i> 1SG.ERG	<i>mina(-lai)</i> man(-DAT)	<i>d^hok^ho-dɔ</i> see-1SG/3SG.NPST	
	I see the ma			1 • 1

(63) nono-wa tsi ana mama (-lai) bi-da aunt-ERG child 3SG.POSS mother(-DAT) give-3SG/3SG.NPST 'The aunt gives the child to its mother.'

In corpus examples, the use of *-lai* is much more frequent for primary object marking, possibly to disambiguate the arguments in the more complex sentences which occur in natural narrative.

- (64) *kekewa-nusi-lai lule bi-dasi ts^ha* thrush-DU-DAT blessing give-3SG/3DU.NPST HS 'He blesses the thrushes.'
- (65) *idə wats^hunari.dəndunari d^ham-lai biŋ-də* this treasure that-DAT give-1SG/3SG.NPST 'I will give this treasure to him.'
- (66) mama-lai p^hot-ka nome hoi?-mu di-mu porjo mother-DAT help-NPST.PRT daughter.in.law bring-INF put-INF OBL
 'One must bring back a daughter-in-law to help mother/a helping daughter-in-law to mother.'

(67)	aŋ-lai	[<i>aŋ</i>	[<i>ju?wa</i>	k ^h ip-ka]	lə	lam-di]
	1SG-DAT	1SG	millet.paste	cook-NPST.PRT	stone	search-PURP

p^hiŋ- tsusi send-3DU/1SG.PST 'They sent me to search for a stone for cooking millet paste.'

4.1.3 Experiencer constructions

Koyi makes use of impersonal constructions, with the verb in the 3rd person singular, for a number of experiential predication situations, such as feeling, fearing, etc. However, Koyi (unlike for example Thulung, or Nepali) does not make use of the dative to mark this experiencer. In fact, in some cases, even though the Nepali verb is borrowed directly for the predication (as in (68)), the experiencer remains unmarked (in Nepali, the experiencer would have been marked with *-lai*).

- (68) *ani sekbar lagjo* 2PL (warm) (feel.3SG.PST) 'You feel warm.'
- (69) an jo buk^ho b^hi-di lo-di
 1SG also basket make-PURP feel-3SG.PST
 'I feel like making a basket as well.'

Sometimes, the experiencer is marked as a possessive, as in (70).

(70) $d^huwaŋ > k^h 2^p - mu$ lo-di aŋu much feel.shy-INF feel-3SG.NPST 1SG.POSS 'I feel very shy.'

4.2 Clause combinations

4.2.1 Complement clauses

4.2.1.1 Utterance predicates

Direct quotation is expressed with an independent finite sentence, as in (71) and (72), or is begun by a conjugated verb of utterance with no specific complementizing morphology on the reported clause, as in (73).

(71)	sjurime-a	[<i>a-kulu</i>	la?-nɔ	ip ^h -a		ibi
	Sjurime-ERG	2POSS-face	hide.2SG.IMI	P-SEQ sleep-2	SG.IMP	here
	tsuktsu-tsə	ho-ni]	lu		t ^h e-m	
	uncle-PLU	come-3PL.N	PST say.3SC	3/3SG.PST	HS-NO	М
	'Syurime told	him: hide you	r face when you	u sleep, the god	s will con	ne.'
(72)	[a-be-na]		lu	ts ^h a		

(72) [*a-be-na*] *lu tsⁿa* NEG-give-3SG/2SG.NPST say.3SG/3SG.PST HS "'He won't give it to you" she said.'

 $[ts^h \circ m - di - k \circ$ lu?-ŋa (73)oko mina ађа 1SG.ERG say-1SG/3SG.PST one.CL person dance-PURP-COM k^huts-isi risiwa nis-di song listen-PURP go-1DI.NPST 'I said to someone "let's go dance and listen to music".'

Indirect quotation is expressed with an infinitive clause followed by a finite verb of utterance.

- $[k^hadza$ de?-tsu (74)dzi-mu] say-1SG.PST snack eat-INF 'I said let's eat a snack.'
- $d^{h}um-mu$] (75) det-tsu [kuku-tsɔ eso uncle-PLU meet-INF say-1SG.PST (like.this) 'And so I decided to come meet the uncles.' (lit. I said to myself to come meet the uncles)

4.2.1.2 Perception

Complements of perception can be expressed by using the hearsay morpheme at the end of an independent clause (76), or by having a main verb of perception either after (77) or before (78) a nominalized clause.

(76)	[<i>umu-nɔ</i> 3SG-GEN 'I heard he als	<i>jo</i> also so wants	<i>buk^hə</i> basket to mak	<i>b^hi-di</i> make-I e baske	PURP ts.'	<i>lɔ-di</i>] feel-38	G.PST	t ^h e HS
(77)	[<i>umu-wa</i> 3SG-ERG	<i>he?lɔ</i> now	<i>hul-e-c</i> cough-	<i>≵e-m</i>] verb.fil	ler-DUI	R.3SG.1	NPST-N	IOM
	<i>ŋis-tə</i> hear-1SG/3SC 'I hear him co	G.NPST bughing	now.'					
(78)	<i>kuku-wa</i> uncle-ERG	<i>d^hok^hc</i> see.35	o G/3SG.]	PST	[<i>ana</i> 3SG.P	OSS	<i>moktsi</i> nephew	V
	<i>hɔkʰuw-a-m</i> arrive-3SG.PS 'Uncle saw th	ST-NON at his ne	1 ephew h	<i>ana</i> 3SG.P ad arriv	OSS ved to ki	<i>hobu</i> self ll him.'	<i>se?-di</i>] kill-PU	RP

4.2.1.3 Phasals

Phasal predicates are often expressed through aspectivizers, morphemes that are combined with verbs to lend them aspectual and phasal characteristics. However, some examples of phasal complements are found in the corpus with the complement clause in the infinitive.

(79) *mama* k^hum-mu ŋir-usi mother bury-INF finish-3DU/3SG.PST 'They finished burying mother.'

(80)	pak ^h a	saplo	kʰɔi?-mu	si?
	(outside)	jungle	go-INF	stop.3SG/3SG.PST
	'He stopped	going int	o the jungle.'	

4.2.2 Adverbial clauses

4.2.2.1 Purpose clauses

Purpose is expressed by a dependent clause, with a suffix -di on the verb. The vast majority of purpose clauses in the corpus are found with motion verbs in the main clause (81). The other regularly occurring main verb with purpose clauses was *lumu* 'to feel', as in (82), as this is how Koyi expresses the notion of 'to feel like X-ing'.

- (81) [somo lam-di] gho-na what search-PURP come.down-2SG.PST 'What did you come searching for?'
- (82) [*somo dzi-di*] *lo-di*ⁱ⁰ what eat-PURP feel-3SG.PST 'What do you feel like eating?'

Another way to express purpose, this structure being borrowed from Nepali, is with dative marker -lai following a nominalized clause, as in (83).

(83) *lukts-iki-m-lai lo?-mu lukts-iki* stir-1PI/3SG.NPST-NOM-(DAT) stir-INF stir-1PI/3SG.NPST 'To stir it, we stir it and stir it.'

4.2.2.2 Manner clauses

A converbal suffix -to is used to express manner. The converb is often, though not always, reduplicated (as in 84).

¹⁰ The agreement on the verb 'to feel' is impersonal, as discussed in 4.1.3.

(84) *d^huŋŋje-lɔm jɔmɔla kok-to kok-to* Dhungye-ALL banana cut-MAN cut-MAN

> $k^{h}uw$ -a $ts^{h}a$ come.up-3SG.PST HS 'Cutting bananas, he came up to Dhungye.'

(85) $\frac{\partial rko}{\partial t}$ nana j $\frac{\partial}{\partial t}$ $\frac{b^{h}ul-to}{b^{h}ja?}$ (other) elder.sister also run-MAN come.3SG.PST 'The other sister came running.'

4.2.2.3 Reason clauses

There are several ways to express reason. The morpheme $-k^{ha}$ can be suffixed to a finite verb to form the dependent reason clause. The reason clause can come either before (86) or after (87) the main clause.

(86)	[<i>bura</i>	ŋits-a-k ^h a]	d ^h um-di	g ^h uk-tsu-m
	old.man	suffer-3SG.PST-CAUS	meet-PURP	come.down-1SG.PST-NOM
	'Because	e the old man is suffering,	I came down	to see him.'

(87)	<i>juku</i> down.below	<i>najo?ma</i> Nayoma		<i>vipi</i> grandmother	<i>ne</i> TOP	<i>bak^haju-bi</i> earth-LOC	<i>nuwa</i> mind
	<i>tsam-a</i> lose-3SG.PST 'Because she mind down or	[<i>tɔpa</i> husband couldn't fin h earth.'	<i>lalu</i> love nd a h	<i>mu-mu</i> do-INF usband to lov	<i>ə-d^hoʻi</i> NEG-s ve, Godo	² d-u-k ^h a] see-3SG/3SG.1 dess Nayoma l	PST-CAUS ost her

The ergative/instrumental marker can be suffixed to a nominalized finite clause to express reason:

(88) ana English o-kuk-uŋa-m-wa
 1SG (English) NEG-understand-1SG/3SG.NPST-NOM-INSTR
 'Because I don't know English...'

This construction is similar to Nepali, where -le (the Nepali ergative/instrumental marker) expresses reason in clauses.

Yet another means of expressing reason is with the ablative marker $-bika^{11}$:

(89) asina [uma d^humo ts^he-m koŋk^ha yesterday [3SG.ERG lots cold-NOM water
 duŋ-u-m-bika] hul-e-m drink-3SG-NOM-ABL] cough-3SG.NPST-NOM 'Yesterday he drank lots of cold water therefore he coughed.'

¹¹ This actually looks like English "he coughed from drinking cold water"

4.2.2.4 Temporal clauses

There are three main markers used to indicate temporal relationships between clauses.

The suffix -lo 'TEMP' indicates simultaneity of actions, and is suffixed to the verb in a finite clause.

(90) d^hupts-ini-lo oŋko jo ŋje-ko
 play.music-2PL/3SG.NPST-TEMP 1DE also hear-1DE/3SG.NPST
 'When you play music, we too will hear it.'

The suffix *-no* 'SEQ', used to mark sequential actions, is suffixed to the verb in a finite clause. The marked clause describes the action which occurs first, the unmarked clause (which follows syntactically) the event which follows temporally.

(91)	ађа	idə	subja-bi	k ^{-h} itlom	jo?-dɔ-nɔ
	1SG.ERG	this	bread-LOC	butter	spread-1SG.NPST-SEQ
	dzaŋ-dɔ				
	eat-1SG.NP	ST			
	'I spread but	tter on th	ne bread and the	en eat it.'	

The suffix -me 'SEQ' is used with nominalized verb forms, and appears to highlight the conclusion of one event before the next is begun. It can often be translated with a perfect verb.

(92) bu?d-a-m-me ludzom p^hul dip^h-iki-m-me boil-3SG.PST-NOM-SEQ millet flour apply-1PI/3SG.NPST-NOM-SEQ
 dabilo-wa lo?-mu ts^ho spatula-INSTR stir-INF OBL 'Once it has boiled, once the millet flour is added, you must stir it with a spatula.'

In (93), all three temporal markers occur together:

(93)	<i>d^ham k^hiba-kɔ</i> that dog-COM	d ^h am that	<i>rəmb^hə</i> boar	d ^h i?-si-m- me meet-3DU/3SG.PS	ST-NOM-SEQ
	kəl-to kəl	-to	k ^h o-si- lo	ne jo	
	chase-MAN cha	se-MAN	go-3DU.PS	T-TEMP TOP dov	vn.below
	sodel-bo	suŋdel	tar g"u	d-usi- nə	
	[place.name]-LOC	[place.]	name] brin	g.down-3DU/3SG.PS'	Γ-SEQ
	se?-si	ts ^h a			
	kill-3DU/3SG.PS	Г HS			

'When those dogs, having encountered a boar and chased him, went down to SungdelThar in Sungdel, they brought [the boar] down and then killed him.'

4.2.2.5 Conditional clauses

To form a conditional clause, $-k^{h}o$ is suffixed onto a finite clause (which is sometimes nominalized, as in (97)). Either clause can be negated, and the verbs can be in the past or non-past.

(94) <i>a-pipi-ja</i>	<i>dja-k^ho</i>	<i>aŋ</i>	<i>adzi</i>
2POSS-grandmother-ERG	say.3SG/3SG.PST-COND	1SG	later

tan-nisu descend-1SG.NPST.refl 'If your grandmother said that, I will come down later.'

(95)a-bi-tɔ-k^hoaŋakuku-kɔNEG-give-3SG/1SG.NPST-COND1SG.ERGuncle-COM

ke-su argue-1DE.NPST uncle kill-1SG/3SG.NPST 'If he doesn't give it to me, I will argue with uncle and kill him.'

(96) *hu ɔ-ho-di-k^ho k^haruwa.uduwa* rain NEG-come-3SG.NPST-COND agriculture

> *o-ts^ho?o* NEG-become.3SG.NPST 'If it doesn't rain, there won't be any agriculture.'

(97) *adzanum wale-bi hu ɔ-hɔ-di-m-k^ho* last.year time-LOC rain NEG-come-3SG.PST-NOM-COND

sukpa ts^h3?ɔ-m suffering become.3SG.PST-NOM 'If it had not rained last year, there would have been suffering.'

4.2.3 Relative clauses

There are two ways to form relative clauses:

- By nominalizing the clause with -m (this works for both past and non-past clauses), as in (98).
- By suffixing the non-past participle -*ka* to the root (for non-past, as in (99)) or by suffixing –*pam* (the past participle plus nominalizer) to the root (for past relatives, as in (100)).

(98) $a\eta a$ $[k^h a - wa g^h u d - u - m]$ $s \sigma$ 1SG.ERG river-ERG bring.down-3SG/3SG.PST-NOM wood

lam-uŋa search-1SG/3SG.PST 'I searched for wood brought down by the river.'

- (99) $\begin{bmatrix} k^h \partial t ka \end{bmatrix}$ $t^h \partial m$ go-NPST.PRT (place) 'place to be visited'
- (100) $[k^{h} 3i mu pa m]$ $t^{h} 3m$ go-INF-PST.PRT-NOM (place) 'visited place'

Unsurprisingly, the subject and object arguments are the ones that are most frequently relativized on. All other arguments in the relativization accessibility hierarchy are found expressed with relatives in Koyi.

Head as subject of relative:

(101)	ађа	[<i>mulusəsi</i>	dza	dza-da-m]	b ^h o?o
	1SG.ERG	corn	rice	eat-3SG.NPST-NOM	pig

d^hok^ho-dɔ see-1SG/3SG.NPST 'I see the pig eating corn-rice.'

Head as object of relative:

(102)	[<i>a-kim-bi</i> 2POSS-house-LOC	<i>ana-ŋ:</i> 2SG.E	, ERG-IN	Г	<i>ho?-na-nɔ</i> bring-2SG/3SG.PST-SEQ	
	<i>da-na-m</i>] place-2SG/3SG.PST-	NOM	<i>oko</i> 1.CL	<i>mina</i> person	d ^h am-wa that-ERG	

k^hip-da cook-3SG/3SG.NPST 'The person you brought back to your house and placed there is cooking.' Head as recipient of relative:

(103)	[<i>aŋa</i> 1SG.ERG	<i>dza</i> rice	<i>bi-ŋa-m</i>] give-1SG/3SG.PST-NOM]	<i>mina</i> person	<i>duwa-ŋɔ</i> much-INT
	<i>malamsu</i> fast	<i>k^huts-</i> go-3S	a G.PST		
	'The man I ga	ave food	l to left very fast.'		

Head as oblique of relative:

- (104) [ana k^{hitlom} jo?d-uŋa-m] subja dza-ŋa 1SG.ERG butter spread-1SG/3SG.PST-NOM bread eat-1SG.PST 'I ate the bread spread with butter.'¹²
- (105) $d^{h_{2}}dzam$ [da-si-m-bi] z- $d^{h_{0}}dz$ -usi snack put-3DU/3SG.PST-NOM-LOC NEG-find-3DU/3SG.PST 'They didn't find the snack where they had put it.'

Head as oblique of possessor:

(106) [*nu misi kom go-di-m*] mina nose eye mouth be.inan-3SG.NPST-NOM person 'A person with a nose, eyes, mouth'

As a main clause, the relative would be expressed as any possessive predication, as described in 4.1.1, with the comitative marker on the possessor:

(107) *mina-ko nu misi kom go-di* person-COM nose eye mouth be-3SG.PST 'The person had a nose, eyes and a mouth.'

(108) exemplifies a sentence with two relatives with the same head, with different grammatical relations within each relative:

¹² As a main clause, the content of the relative is expressed as: *ana ido subja-bi* k^{hitlom} *jo?-do* 1SG.ERG this bread-LOC butter spread-1SG/3SG.NPST 'I spread butter on this bread.'

(108)	[<i>aŋ</i> [1SG	<i>dza</i> rice	<i>bi-ka</i>] give-NSPT.PRT]	<i>mina</i> person	[<i>dza</i> [rice	<i>dzi-ka</i>] eat-NPST.PRT]
	mina	ри	duwa-ŋɔ	malsə ho-di		

person CONTR much-INT fast come-3SG.NPST 'The person I give rice to, the person who is eating the rice, comes really fast.'

4.2.4 Comparison

The ablative –*bika* is used to mark the object of comparison:

- (109) *idə lə-bika idə pu tsursə go* this stone-ABL this CONTR small be.inan.3SG.NPST 'This stone is smaller than this stone.'
- (110) an-bika ne $d^h u$ ne a-bubu 2SG-ABL TOP early TOP 2POSS-elder.brother

ho-di-di-m come-3SG.NPST-NOM 'Your older brother comes earlier than you.'

Superlatives are very unnatural in Koyi, and elicitation resulted in rather contorted sentences. This is apparently not a functionally relevant concept for Koyi speakers.

Gloss abbreviations used:

() denot	es borrowings	ERG	ergative	PLU	plural (nominal)
•	portmanteau	FIN	end point focus	PON	ponent
ABL	ablative	GEN	genitive	POSS	possessive pronoun
ALL	allative	HS	hearsay	PROG	progressive
ASP	generic aspect	IMP	imperative	PRT	participle
BEN	benefactive	INF	infinitive	PST	past
CAUS	cause	INSTR	instrumental	PURP	purpose
CL	counter	INT	intensifier	Q	question marker
COM	comitative	LOC	locative	refl	reflexive
COND	conditional	MAN	manner	SEQ	sequential
CONT	continuous	NEG	negative	SG	singular
CONTR	contrastive	NOM	nominalizer	TEMP	temporal
DAT	dative	NPST	non-past	TOP	topic
DE	dual exclusive	OBL	obligation	X/Y	X-agent acting on
DEF	definitive	PE	plural exclusive		Y-patient
DI	dual inclusive	PER	perseverative		
DU	dual	PI	plural inclusive		
DUR	durative	PL	plural (pronoun)		

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