

## 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<sup>h</sup>uŋ*, Sunwar *p<sup>h</sup>u*, 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<sup>h</sup>li* in Koyi (but *k<sup>h</sup>li* in Thulung)

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

## 1.2 Consonants

### 1.2.1 Initial consonants

k	k <sup>h</sup>	g	g <sup>h</sup>	ŋ
ts	ts <sup>h</sup>	ɕ	ɕ <sup>h</sup>	
t	t <sup>h</sup>	d	d <sup>h</sup>	n
p	p <sup>h</sup>	b	b <sup>h</sup>	m
s	h	r	l	

Voicing is phonemic, as is aspiration.

### 1.2.2 Final consonants

k	ŋ
(t)	n
p	m
ʔ	
s	r l

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 ɔ 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	<i>b<sup>h</sup>ai?mu</i> ‘to shout, vt’, <i>jai?mu</i> ‘to like’, <i>d<sup>h</sup>ai?lɔ</i> ‘then’
ɔi	<i>b<sup>h</sup>ɔi?mu</i> ‘to tie’, <i>ɔi?mu</i> ‘return’ <i>hɔi?mo</i> ‘how’
ui	<i>bui?mu</i> ‘to boil’, <i>lui?mu</i> ‘to tell’, <i>b<sup>h</sup>ui</i> ‘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.<sup>1</sup>

	ABSOLUTIVE	ERGATIVE	POSSESSIVE PREFIX	POSSESSIVE PRONOUN
1SG	aŋ	aŋa	a/ɔ	aŋu/aŋɔ
1DI	intsi			
1DE	ɔntsu			
1PI	iŋki			
1PE	ɔŋkɔ			
2SG	an	ana	a	anu/anɔ
2DU	antsi			
2PL	ani			
3SG	um	uma	a	ana/anɔ
3SG	umu	uma	a	ana/anɔ
3DU	umnusi <sup>2</sup>			
3PL	umtsɔʔɔ/umtsɔ			

Table 1. Pronouns

### 2.2 Demonstratives

*idɔ* 'this'

*jam* 'that'

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

### 2.3 Interrogatives

*sɔmɔ* 'what'

*halo* 'when'

*gɔpa* 'where'

<sup>1</sup> 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 (*-nɔ*) markers. The contracted ergative and possessive pronouns, where they exist, are glossed 'ERG' and 'POSS' to distinguish them from the analytical forms.

<sup>2</sup> Occasionally (always in narrative) *untsi* is found for the 3DU. This seems to be through analogy with the 1DI and the 2DU forms.

<i>asu</i>	‘who’
<i>haka</i>	‘why’
<i>hoi?mo</i>	‘how’

## 2.4 Number and classifiers

1	uk	11	ukuk
2	sək	12	uksək
3	rek	13	ukrek
4	tum	20	səksə, səpusə <sup>3</sup>
5	ŋa	21	səkuk
6	mu	30	reksə
7	suk	31	rekuk
8	um	100	tiksə/uksə
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 *səpu* ‘2.CL’. For ‘three’, there is a choice of *-pu* or *-wə* as the classifier, *-wə* 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<sup>h</sup>əʔ-ni ts<sup>h</sup>a*  
 three child-PLU become-3PL.PST HS  
 ‘He had three children.’

## 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).

<sup>3</sup> The variants for 20 came up in different circumstances: one, *səksə*, I elicited, whereas the other, *səpusə*, came up in a story when someone was telling me his age. It looks like *sə* might be a nominal meaning ‘10 unit’ (*uksə* ‘10’, *səksə* ‘20’, *tiksə* ‘100’), which would explain the use of the classifier form in the *səpusə* variant, ie *sə-pu sə* ‘2-CL decimal unit’.

<i>k<sup>h</sup>aiʔpa</i>	‘bad’
<i>k<sup>h</sup>anuʔpa</i>	‘good’
<i>hopa</i>	‘tall’
<i>g<sup>h</sup>ɔʔpa</i>	‘big’
<i>tsursɔ/ts<sup>h</sup>untɔ/ts<sup>h</sup>ursam</i>	‘small’
<i>gɔldɔk</i>	‘slow, lazy’
<i>malamsu</i>	‘fast’
<i>tsanom</i>	‘tasty’

- (2) *aŋu k<sup>h</sup>anuʔpa gu d<sup>h</sup>ok<sup>h</sup>od-a*  
 1SG.POSS good clothes look-3SG/3SG.PST  
 ‘He looked at my good clothes.’

- (3) *jam hopa sɔ*  
 that big tree  
 ‘that big tree’

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

- (4) *aŋu kim g<sup>h</sup>ɔʔpa 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) *birɔm duwa-ŋa rap<sup>h</sup>-e*  
 chili very-INT be.spicy-3SG.NPST  
 ‘The chili is very spicy.’

Color terms

<i>mɔsukulu</i>	‘black’
<i>selempɔ</i>	‘green’
<i>hilap</i>	‘red’
<i>rubaru</i>	‘white’
<i>p<sup>h</sup>ebu</i>	‘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 dosam mɔsukulu go-di*  
 1SG.POSS hair black be.inan-3SG.NPST  
 ‘My hair is black.’

## 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* *ɕa* *ɕa/ɕa-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).<sup>4</sup>

- (8) *mintsuma(-wa)* *kim-bi* *ɕa* *ɕa-da*  
 woman(-ERG) house-LOC rice eat-3SG.NPST  
 ‘The woman eats rice at home.’
- (9) *aŋu* *mama(-wa)* *ɕa* *ɕa*  
 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) *d<sup>h</sup>anɔ* *aŋa* [*k<sup>h</sup>a-wa* *g<sup>h</sup>ud-u-m* *sɔ*]  
 then 1SG.ERG [river-ERG bring.down-3SG/3SG.PST-NOM wood]  
  
*lam-uŋa*  
 search-1SG/3SG.PST  
 ‘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<sup>h</sup>ɔm* *tsok-bi*  
 which (chowk)-LOC  
 ‘What area [does he live] in?’

<sup>4</sup> 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*, *-lɔŋka* or *-ka* (where *-bika* is derived from the locative *-bi*, and *-lɔŋka* 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-lɔŋka g<sup>h</sup>uk-tsu-m*  
 Sodel-ABL come.down-1SG.PST-NOM  
 ‘I came down from Sodel.’

Allative: *-lɔm*

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

Comitative: *-kɔ*

- (15) *mama najoŋma-kɔ gɔ-di-m ts<sup>h</sup>a*  
 Mother Nayoma-COM be-3SG.PST-NOM HS  
 ‘Mother was with Nayoma.’

Genitive: *-nɔ*, 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 nouns<sup>5</sup>.

The possessive prefix has two interchangeable forms for the 1SG (*a/ɔ*), 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.

<sup>5</sup> 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-buwə*, 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 *anɔ* (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<sup>h</sup>a*  
 2SG.POSS        lover  
 ‘your lover’
- (19) *ana*            *rili<sup>h</sup>u*  
 3SG.POSS        arrow  
 ‘his arrow’

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

- (20) *aŋɔ*            *a-wa?riwa*  
 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 (*-nɔ*), 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-nɔ*        *same*  
 1DI-GEN        clan  
 ‘our clan’
- (22) *intsi*    *bɔktsi*  
 1DI    younger.sibling  
 ‘our younger sibling’

### 2.7.2 Possession by other nominals

The genitive marker *-nɔ* is used to mark possession by animate beings.

- (23) *k<sup>h</sup>iba-nɔ 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’  
 (\**del-nɔ haŋbu*)

### 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-like<sup>6</sup>) 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	tɔ	tsu
1DI	isi	asi
1DE	isu	asu
1PI	iki	aki
1PE	ekɔ	akɔ
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

<sup>6</sup> 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).

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

NPST	1SG	1DI	1DE	1PI	1PE	2SG	2DU	2PL	3SG	3DU	3PL
1SG						ne	nisi nusi	nini	də	dəsu	dənu
1DE						isu	isu	isu	isu esu	isu	isu
1DI									isi esi	isi	isi
1PE						ekə	ekə	ekə	ekə	ekə	ekə
1PI									iki eki	iki	iki
2SG	tana təna		isina isuna		ekəna				dana	dasina	dana
2DU	təsuna		isina isuna		ekəna				isina	isina	isina
2PL	tənu təni		ekəna		ekəna				ini	ini	ini
3SG	tə	isi	isu	iki	ekə	ena	isina	ini	da	dasi	dani
3DU	təsu təsi	isi	isu	iki	ekə	ena	isina	ini	dasi	dasi	dasi dani
3PL	tənu	isi	isu	iki	ekə	ena	isina	ini	dani	dani	dani

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						ɔkɔ	ɔkɔ	ɔkɔ	ɔkɔ akɔ	ɔkɔ	ɔkɔ
1PI									aki	aki	aki
2SG	tsuna								una	una usina	una
2DU	tsusuna								asina usina	asina	asina
2PL	tsunu tsuni								ani	ani	ani
3SG (2SG IMP)	tsu	asi	asu	aki	ɔkɔ	ana	asina	ni ani	u a ∅ di	usi	uni
3DU (2DU IMP)	tsusu tsusi	asi	asu	aki	ɔkɔ	ana	asina	ani	usi	usi	usi uni
3PL (2PL IMP)	tɔnu tsuni	asi	asu	aki	ɔkɔ	ana	asina	ani	uni	uni	uni

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’.

<i>ts<sup>h</sup>en-dɔ</i>	know-1SG/3SG.NPST	<i>ri-tsu</i>	laugh-1SG.PST
<i>ts<sup>h</sup>ents-ini</i>	know-2PL/3SG.NPST	<i>rja-di</i>	laugh-3SG.PST
<i>ts<sup>h</sup>end-uni</i>	know-3PL/3SG.PST	<i>re-di</i>	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	<b>jɔm-dɔ</b>	<b>jɔmd-uŋa</b>
1DI	<b>jɔmts-isi</b>	<b>jɔmts-asi</b>
1DE	<b>jɔmts-isu</b>	<b>jɔmts-asu</b>
1PI	<b>jɔmts-iki</b>	<b>jɔmts-aki</b>
1PE	<b>jɔmts-ekɔ</b>	<b>jɔmts-akɔ</b>
2SG	<b>jɔm -dana</b>	<b>jɔmd-una</b>
2DU	<b>jɔmts -isina</b>	<b>jɔmts-asina</b>
2PL	<b>jɔmts -ini</b>	<b>jɔmts-ani</b>
3SG	<b>jɔm -da</b>	<b>jɔmd-u</b>
3DU	<b>jɔm -dasi</b>	<b>jɔmd-usi</b>
3PL	<b>jɔm -dani</b>	<b>jɔmd-uni</b>

Table 5. *jɔmmu* ‘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 *jɔmmu* in Table 5, the basic pattern looks something like this: when the verb ending begins with a consonant, the stem is *jɔm-*; when the verb ending begins with a vowel, the stem is *jɔmts-*, except that sometimes it is *jɔmd-*. These *jɔmd-* 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 *jɔmmu* 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’ (Michailovsky 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<sup>rd</sup>-person Patients, 2SG Agents acting on 3<sup>rd</sup>-person Patients, and any 3<sup>rd</sup>-person Agent acting on a lower ranked 3<sup>rd</sup>-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.

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

Verb-Base Final	Pre-V	Pre-C	Verbs (in infinitive form)
open	∅	∅	<i>mumu</i> ‘be (anim)’; <i>humu</i> ‘come’; <i>lumu</i> ‘feel’; <i>numu</i> ‘be good’; <i>gumu</i> ‘be (inan.)’; <i>homu</i> ‘climb’; <i>huk<sup>h</sup>omu</i> ‘arrive up’; <i>t<sup>h</sup>i-mu</i> ‘fall’; <i>g<sup>h</sup>imu</i> ‘rot’; <i>kimu</i> ‘rot’; <i>rimu</i> ‘laugh’; <i>simu</i> ‘mature’; <i>lomt<sup>h</sup>imu</i> ‘walk’; <i>ts<sup>h</sup>ismu</i> ‘regain consciousness’; <i>hulemu</i> ‘arrive’
p	p <sup>h</sup> /pts	p	<i>ipmu</i> ‘sleep’; <i>tsapmu</i> ‘be able’; <i>rapmu</i> ‘be spicy’; <i>jupmu</i> ‘be thin’; <i>ɕupmu</i> ‘be nice’; <i>repmu</i> ‘stand’; <i>supmu</i> ‘be full’
t	ts/?/∅	t/?/∅	<i>hubai?mu</i> ‘reach’; <i>p<sup>h</sup>u?mu</i> ‘wake up’; <i>p<sup>h</sup>u?mu</i> ‘break’; <i>ŋje?mu</i> ‘be sick’; <i>mi?mu</i> ‘die’; <i>b<sup>h</sup>i?mu</i> ‘come’; <i>ɕ<sup>h</sup>i?mu</i> ‘be wet’; <i>si?mu</i> ‘be separated’; <i>hai?mu</i> ‘burn’; <i>hɔ?mu</i> ‘open’; <i>k<sup>h</sup>ɔi?mu</i> ‘go’; <i>b<sup>h</sup>ɔi?mu</i> ‘shout’
k <sup>7</sup>	?/∅	k/_dentals ? elsewhere	<i>hug<sup>h</sup>u?mu</i> ‘arrive down’; <i>b<sup>h</sup>a?mu</i> ‘feel like’; <i>jo?mu</i> ‘act like’; <i>ts<sup>h</sup>u?mu</i> ‘become’; <i>g<sup>h</sup>u?mu</i> ‘come’; <i>b<sup>h</sup>i?mu</i> ‘come’; <i>ŋo?mu</i> ‘cry’
m	m	m	<i>ts<sup>h</sup>um-mu</i> ‘dance’; <i>ɕ<sup>h</sup>ammu</i> ‘be dizzy’; <i>tsammu</i> ‘lose’; <i>nummu</i> ‘give off smell’; <i>tummu</i> ‘appear’
n	(n)ts	n	<i>lonmu</i> ‘ascend’; <i>tanmu</i> ‘descend’; <i>t<sup>h</sup>inmu</i> ‘be created’; <i>minmu</i> ‘cook’; <i>tsɔnmu</i> ‘escape’; <i>k<sup>h</sup>onmu</i> ‘be respectful of’; <i>hulɔnmu</i> ‘arrive up’; <i>sɔnmu</i> ‘lie’
ŋ	ŋ	∅	<i>hɔmu</i> ‘dry’; <i>k<sup>h</sup>omu</i> ‘come up’; <i>homu</i> ‘enter’
r	r	r	<i>b<sup>h</sup>ermu</i> ‘fly’; <i>pirmu</i> ‘hide’; <i>ŋjermu</i> ‘finish’; <i>ŋurmu</i> ‘snore’; <i>hermu</i> ‘be angry’
l	l	l	<i>b<sup>h</sup>ulmu</i> ‘run’
s	∅	s	<i>ɕ<sup>h</sup>ismu</i> ‘smile’

Table 6. Intransitive stem finals

<sup>7</sup> 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.

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.

Verb-Base Final	Pre-V	Pre-C	Direct Pre-V	Verbs (in infinitive form)
open	∅	ŋ/_1SG NPST, some 1SG PST; ∅ elsewhere	∅	<i>mumu</i> ‘do’; <i>bimu</i> ‘give’; <i>ɕimu</i> ‘eat’; <i>pimu</i> ‘eat’; <i>dimu</i> ‘place’; <i>b<sup>h</sup>imu</i> ‘make’; <i>p<sup>h</sup>imu</i> ‘beg’; <i>b<sup>h</sup>imu</i> ‘weave’
p	pts	p	p <sup>h</sup>	<i>d<sup>h</sup>upmu</i> ‘make music’; <i>ɔpmu</i> ‘shoot’; <i>sapmu</i> ‘divert water’; <i>ts<sup>h</sup>ɔpmu</i> ‘roast’; <i>d<sup>h</sup>upmu</i> ‘earn’; <i>k<sup>h</sup>apmu</i> ‘put on fire’
t	ts	t/_k; ʔ/∅ elsewhere	ts/ʔ/ ∅	<i>k<sup>h</sup>ɔiʔmu</i> ‘bring away’; <i>luʔmu</i> ‘tell’; <i>leʔmu</i> ‘plant’; <i>leʔmu</i> ‘leave’; <i>seʔmu</i> ‘kill’; <i>b<sup>h</sup>eʔmu</i> ‘pick’; <i>siʔmu</i> ‘leave’; <i>b<sup>h</sup>iʔmu</i> ‘bring’; <i>jaiʔmu</i> ‘like’; <i>kaiʔmu</i> ‘bite’; <i>haiʔmu</i> ‘burn’; <i>waiʔmu</i> ‘give birth’; <i>tsɔiʔmu</i> ‘tease’; <i>d<sup>h</sup>iʔmu</i> ‘find’
k	k/kts	k/_dentals k/? elsewhere	k/?	<i>kukmu</i> ‘understand’; <i>kɔʔmu</i> ‘cut cane’; <i>b<sup>h</sup>uʔmu</i> , ‘give birth’; <i>p<sup>h</sup>ɔp<sup>h</sup>uʔmu</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<sup>h</sup>ummu</i> ‘meet’; <i>tsamu</i> ‘forget’; <i>nummu</i> ‘smell’; <i>tsummu</i> ‘split wood’
n	n/nts	n	n	<i>senmu</i> ‘look’; <i>runmu</i> ‘sift’; <i>kanmu</i> ‘spill’
ŋ	ŋ	ŋ/_dentals ∅ elsewhere	ŋ	<i>dumu</i> ‘drink’; <i>d<sup>h</sup>ɔmu</i> ‘crush’; <i>pomu</i> ‘dress someone’; <i>sɔmu</i> ‘pick’; <i>p<sup>h</sup>iŋmu</i> ‘send’
r	r	r	r	<i>ŋjermu</i> ‘finish’
l	l	l	l	<i>jalmu</i> ‘mash’
s	s/∅ <sup>8</sup>	s	s	<i>b<sup>h</sup>usmu</i> ‘dry clothes’; <i>ŋismu</i> ‘listen’; <i>d<sup>h</sup>asmu</i> ‘dig’; <i>ts<sup>h</sup>ismu</i> ‘press’; <i>k<sup>h</sup>umu</i> ‘steal’

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).

<sup>8</sup> 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	∅	d	<i>k<sup>h</sup>omu</i> ‘bring up’
p	pts/p	p	pd	<i>dipmu</i> ‘apply’; <i>tsapmu</i> ‘be able’; <i>k<sup>h</sup>ipmu</i> ‘cook’; <i>kəpmu</i> ‘dress’; <i>mapmu</i> ‘err’; <i>hepmu</i> ‘embrace’; <i>ləpmu</i> ‘catch’; <i>d<sup>h</sup>epmu</i> ‘cover’; <i>repmu</i> ‘respect’; <i>p<sup>h</sup>apmu</i> ‘err’
t	ts	ʔ/∅	ʔd/d	<i>d<sup>h</sup>oʔmu</i> ‘find’; <i>tsjuʔmu</i> ‘stand on all fours’; <i>t<sup>h</sup>oʔmu</i> ‘build’; <i>joʔmu</i> ‘spread’; <i>k<sup>h</sup>irejəʔmu</i> ‘promise’
k	kts	k/ʔ/∅	ʔd/d	<i>joʔmu</i> ‘feed’; <i>ruʔbuʔmu</i> ‘reach very high’; <i>tumtoʔmu</i> ‘know’; <i>g<sup>h</sup>uʔmu</i> ‘bring down’; <i>k<sup>h</sup>oʔmu</i> ‘cut’; <i>tsjuʔmu</i> ‘know’; <i>hug<sup>h</sup>uʔmu</i> ‘bring down’
m	mts	m	md	<i>jəmmu</i> ‘hit’; <i>ts<sup>h</sup>emmu</i> ‘stick’; <i>p<sup>h</sup>ammu</i> ‘scratch’; <i>k<sup>h</sup>ummu</i> ‘bury’; <i>tsemmu</i> ‘play’; <i>məmmu</i> ‘surround’; <i>k<sup>h</sup>əmmu</i> ‘discover’
n	nts	n	nd	<i>lenmu</i> ‘transfer’; <i>t<sup>h</sup>inmu</i> ‘create’; <i>b<sup>h</sup>unmu</i> ‘scold’; <i>minmu</i> ‘remember’; <i>munmu</i> ‘establish’; <i>k<sup>h</sup>ənmu</i> ‘respect’; <i>dənmu</i> ‘unite’; <i>p<sup>h</sup>inmu</i> ‘stretch’; <i>kinmu</i> ‘stretch’; <i>ts<sup>h</sup>enmu</i> ‘recognize’; <i>inmu</i> ‘sell’; <i>p<sup>h</sup>anmu</i> ‘fail’; <i>b<sup>h</sup>unmu</i> ‘scold’
ŋ	--	--	--	none
r	r	r	rd	<i>warmu</i> ‘throw’
l	--	--	--	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	o	ɔ	<i>mumu</i> ‘be (anim)’; <i>hulemu</i> ‘arrive’; <i>humu</i> ‘come’; <i>lumu</i> ‘feel’; <i>ts<sup>h</sup>u?mu</i> ‘become’; <i>p<sup>h</sup>u?mu</i> ‘break’; <i>hubai?mu</i> ‘reach’; <i>gumu</i> ‘be (inan.)’; <i>numu</i> ‘be good’; <i>g<sup>h</sup>u?mu</i> ‘come down’; <i>hug<sup>h</sup>u?mu</i> ‘arrive down’
i	e	ja	<i>t<sup>h</sup>imu</i> ‘fall’; <i>ɕ<sup>h</sup>ismu</i> ‘smile’; <i>g<sup>h</sup>imu</i> ‘rot’; <i>kimu</i> ‘argue’; <i>rimu</i> ‘laugh’; <i>simu</i> ‘mature’; <i>ts<sup>h</sup>imu</i> ‘regain consciousness’; <i>lɔmt<sup>h</sup>imu</i> ‘walk’; <i>b<sup>h</sup>i?mu</i> ‘come’
o	u	u	<i>k<sup>h</sup>omu</i> ‘come up’; <i>homu</i> ‘enter’
ɔ	u	u	<i>k<sup>h</sup>ɔi?mu</i> ‘go’; <i>ts<sup>h</sup>ɔmmu</i> ‘dance’
ɔ	a	a	<i>hɔmu</i> ‘dry’; <i>hɔ?mu</i> ‘open’
e	i	i	<i>hermu</i> ‘be angry’; <i>b<sup>h</sup>ermu</i> ‘fly’; <i>ɲje?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>ɲismu</i> ‘hear’; <i>ts<sup>h</sup>ismu</i> ‘press’
i	e	ja	a	<i>dimu</i> ‘place’; <i>pimu</i> ‘eat’; <i>b<sup>h</sup>imu</i> ‘weave’; <i>ɕimu</i> ‘eat’; <i>b<sup>h</sup>imu</i> ‘make’
u	o	ɔ	u	<i>mumu</i> ‘do’; <i>k<sup>h</sup>umu</i> ‘steal’; <i>b<sup>h</sup>usmu</i> ‘dry’
ɔi	u	u	o	<i>k<sup>h</sup>ɔi?mu</i> ‘take away’; <i>hɔi?mu</i> ‘bring’; <i>tsɔi?mu</i> ‘tease’
o	u	u	u	<i>pomu</i> ‘dress someone’
ɔ	a	a	a	<i>d<sup>h</sup>ɔmu</i> ‘crush’; <i>sɔmu</i> ‘pick’; <i>kɔ?mu</i> ‘cut cane’
e	i	i	i	<i>senmu</i> ‘see’; <i>ɲjermu</i> ‘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<sup>h</sup>ɔi?mu* ‘go’ the 2SG, 2DU and 2PL forms are as follows:

<i>k<sup>h</sup>uts-a</i>	go-2SG.IMP (also go-3SG.PST)
<i>k<sup>h</sup>uts-asi</i>	go-2DU.IMP (also go-3DU.PST)
<i>k<sup>h</sup>uts-ani</i>	go-2PL.IMP (also go-3PL.PST)

For transitive *kurmu* ‘carry’ the imperative forms are the following.

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

Need and obligation are marked with obligation marker *ts<sup>h</sup>o* (see (25)) or the borrowed marker *pɔrjo* (see (26)), both following an infinitive clause.

(25)	<i>a-mampa</i>	<i>d<sup>h</sup>um-di</i>	<i>k<sup>h</sup>ɔiʔ-mu</i>	<i>ts<sup>h</sup>o</i>
	1POSS-parents	meet-PURP	go-INF	OBL
	‘You must go meet my parents.’			

(26)	<i>ɕi-mu</i>	<i>pɔrjo</i>
	eat-INF	(OBL)
	‘You must eat.’	

Ability is expressed with the verb *ts<sup>h</sup>apmu*, ‘be able to’, which takes an infinitive clause as its complement.

(27)	<i>ip<sup>h</sup>-a-ba-m</i>	<i>um</i>	<i>um-bika</i>	<i>ne</i>	
	sleep-verb.filler-PROG.3SG.PST-NOM	3SG	there-ABL	TOP	
	<i>umtsaʔ</i>	<i>jɔ</i>	<i>kur-mu-nɔ</i>	<i>g<sup>h</sup>uʔ-mu</i>	<i>ɔ-tsap-ka</i>
	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)	<i>antsi</i>	<i>k<sup>h</sup>ɔiʔ-mu</i>	<i>tsap<sup>h</sup>-isina</i>		
	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:



End-point focus (*ɲir*) ‘FIN’:

- (36) *pats badɛ tsʰɔʔ-ɲir-a-m* *gɔ*  
 (five o'clock) become-FIN-3SG.PST-NOM be.inan.3SG.PST  
 ‘It got to be after 5 o’clock.’

Continuous (*tʰats/tʰɔts/tʰɔd/tʰɔ*) ‘CONT’:

- (37) *an-kɔ aŋ mu-tʰɔ-dɔ*  
 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) *rɔmbʰɔ ipʰ-a-ba-m* *dʰiʔ-i*  
 boar sleep-verb.filler-PROG.3SG.PST-NOM meet-3SG/3SG.PST  
 ‘He encountered a sleeping boar.’

Perseverative (*bɔk*) ‘PER’, when an action is maintained:

- (40) *rip-bɔk-tsu ɔ-nɔ-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 kʰuts-akts-a tsʰa*  
 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 (*kʰɔn/kʰɔnd*) ‘BEN’ adds the notion that the action is carried out for someone’s benefit:

- (42) *tsin-tsɔ kʰɔɔ hal-kʰɔnd-u* *tsʰa*  
 beer-PLU all spread-BEN-3SG/3SG.PST HS  
 ‘She had spread out all 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) *aŋa* [sɔlɔ]      *g<sup>h</sup>ud-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 *ɔ-* 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 productively<sup>9</sup>.

- (44) *kɔm-wa*      *du-mɔ-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<sup>h</sup>i?mu* ‘come/bring’  
*g<sup>h</sup>u?mu* ‘come down/bring down’  
*k<sup>h</sup>omu* ‘come up/bring up’  
*k<sup>h</sup>ɔi?mu* ‘go/take away’  
*hɔnmu* ‘arrive’  
*lɔnmu* ‘ascend’  
*homu* ‘climb’

The combined motion verbs all involve a first verb *humu* ‘to come’.

- hulɔnmu* ‘arrive up’ (come+ascend)  
*hug<sup>h</sup>u?mu* ‘arrive down’ (come+come down)/ ‘bring down’ (come+bring down)  
*huk<sup>h</sup>omu* ‘arrive up’ (come +come up)

<sup>9</sup> It was found, in the corpus, with *kurmu* ‘to carry’ giving ‘to cause to bear a child’; *senmu* ‘to see’ giving ‘to show’; *t<sup>h</sup>ɔmu* ‘to spread’, giving ‘to spread out’; *ɲismu* ‘to hear’ giving ‘to make listen’; *b<sup>h</sup>ermu* ‘to fly’ giving ‘to make fly’; *oɪɕimu* ‘to vomit’ giving ‘to make vomit’, and *hɔmu* ‘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<sup>h</sup>u?d-usi*  
give-bring.down-3SG/3DU.PST  
'He gave [the comb] to them to bring down.'
- (46) *d<sup>h</sup>i-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<sup>h</sup>iŋ-k<sup>h</sup>od-u*  
send-bring.up-3SG/3SG.PST  
'She brought him up [ie. he was conveyed up]'
- (49) *lɔb-g<sup>h</sup>ud-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) *jɔm-se?*  
hit-kill.3SG/3SG.PST  
'He hit him dead.'

- (53) *kjə-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<sup>h</sup>ja-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) *mulusəsi mɔlu-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-no tsi-ŋə sjurime mɔ-di-m*  
Byaksupa-GEN child-INT Sjurime be.anim-3SG.NPST-NOM  
'(Once) there was Byaksupa's child Syurime.'
- (59) *aŋu 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-kɔ*            *bulu*    *ɔ-gɔ-di*  
 1SG-COM    money NEG-be-3SG.NPST  
 ‘I have no money.’
- (61) *aŋu*            *mama*            *mo-di*  
 1SG.POSS    mother            be.anim-3SG.NPST  
 ‘I have a mother.’

#### 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 Lahaussais 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) *aŋa*            *mina(-lai)*        *d<sup>h</sup>ok<sup>h</sup>o-dɔ*  
 1SG.ERG        man(-DAT)        see-1SG/3SG.NPST  
 ‘I see the man.’
- (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<sup>h</sup>a*  
 thrush-DU-DAT    blessing        give-3SG/3DU.NPST    HS  
 ‘He blesses the thrushes.’
- (65) *idɔ*    *wats<sup>h</sup>unari.dɔndunari*        *d<sup>h</sup>am-lai*        *biŋ-dɔ*  
 this    treasure                            that-DAT        give-1SG/3SG.NPST  
 ‘I will give this treasure to him.’
- (66) *mama-lai*        *p<sup>h</sup>ɔt-ka*            *nɔme*            *hɔi?-mu*        *di-mu*        *pɔrjo*  
 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* [aŋ [juʔwa k<sup>h</sup>ip-ka] lɔ lam-di]  
 1SG-DAT 1SG millet.paste cook-NPST.PRT stone search-PURP

*p<sup>h</sup>iŋ- 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 3<sup>rd</sup> 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) *aŋ jɔ buk<sup>h</sup>ɔ b<sup>h</sup>i-di lɔ-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<sup>h</sup>uwaŋɔ k<sup>h</sup>ɔʔ-mu lɔ-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* [a-kulu laʔ-no ip<sup>h</sup>-a ibi]  
 Sjurime-ERG 2POSS-face hide.2SG.IMP-SEQ sleep-2SG.IMP here

*tsuktsu-tɔ ho-ni] lu t<sup>h</sup>e-m*  
 uncle-PLU come-3PL.NPST say.3SG/3SG.PST HS-NOM  
 ‘Syurime told him: hide your face when you sleep, the gods will come.’

- (72) [a-be-na] lu ts<sup>h</sup>a  
 NEG-give-3SG/2SG.NPST say.3SG/3SG.PST HS  
 ‘“He won’t give it to you” she said.’

- (73) *aŋa luʔ-ŋa oko mina [tsʰɔm-di-kɔ*  
 1SG.ERG say-1SG/3SG.PST one.CL person dance-PURP-COM  
*risiwa ŋis-di kʰuts-isi]*  
 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.

- (74) [*kʰadʒa ɕi-mu]* *deʔ-tsu*  
 snack eat-INF say-1SG.PST  
 ‘I said let’s eat a snack.’
- (75) *eso [kuku-tɕo dʰum-mu] det-tsu*  
 (like.this) uncle-PLU meet-INF say-1SG.PST  
 ‘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) [*umu-nɔ ʒɔ bukʰɔ bʰi-di lɔ-di]* *tʰe*  
 3SG-GEN also basket make-PURP feel-3SG.PST HS  
 ‘I heard he also wants to make baskets.’
- (77) [*umu-wa heʔlɔ hul-e-ɕe-m]*  
 3SG-ERG now cough-verb.filler-DUR.3SG.NPST-NOM  
*ŋis-tɔ*  
 hear-1SG/3SG.NPST  
 ‘I hear him coughing now.’
- (78) *kuku-wa dʰokʰo [ana mɔktsi*  
 uncle-ERG see.3SG/3SG.PST 3SG.POSS nephew  
*hɔkʰuw-a-m ana hobu seʔ-di]*  
 arrive-3SG.PST-NOM 3SG.POSS self kill-PURP  
 ‘Uncle saw that his nephew had arrived to kill him.’

### 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<sup>h</sup>um-mu ŋir-usi*  
 mother bury-INF finish-3DU/3SG.PST  
 ‘They finished burying mother.’
- (80) *pak<sup>h</sup>a saplɔ k<sup>h</sup>ɔiʔ-mu siʔ*  
 (outside) jungle go-INF stop.3SG/3SG.PST  
 ‘He stopped going into 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) [*sɔmɔ lam-di*] *ghɔ-na*  
 what search-PURP come.down-2SG.PST  
 ‘What did you come searching for?’
- (82) [*sɔmɔ ɔzi-di*] *lɔ-di<sup>10</sup>*  
 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 loʔ-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).

<sup>10</sup> The agreement on the verb ‘to feel’ is impersonal, as discussed in 4.1.3.

- (84) *d<sup>h</sup>uŋŋje-lɔm jɔmɔla kok-to kok-to*  
 Dhungye-ALL banana cut-MAN cut-MAN  
*k<sup>h</sup>uw-a ts<sup>h</sup>a*  
 come.up-3SG.PST HS  
 ‘Cutting bananas, he came up to Dhungye.’
- (85) *ɔrko nana jɔ b<sup>h</sup>ul-to b<sup>h</sup>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<sup>h</sup>a* 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) [*bura ŋits-a-k<sup>h</sup>a*] *d<sup>h</sup>um-di g<sup>h</sup>uk-tsu-m*  
 old.man suffer-3SG.PST-CAUS meet-PURP come.down-1SG.PST-NOM  
 ‘Because the old man is suffering, I came down to see him.’
- (87) *juku najo?ma pipi ne bak<sup>h</sup>aju-bi nuwa*  
 down.below Nayoma grandmother TOP earth-LOC mind  
*tsam-a [tɔpa lalu mu-mu ɔ-d<sup>h</sup>o?d-u-k<sup>h</sup>a]*  
 lose-3SG.PST husband love do-INF NEG-see-3SG/3SG.PST-CAUS  
 ‘Because she couldn’t find a husband to love, Goddess Nayoma lost her mind down on earth.’

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

- (88) *ɔŋa English ɔ-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 *-je* (the Nepali ergative/instrumental marker) expresses reason in clauses.

Yet another means of expressing reason is with the ablative marker *-bika*<sup>11</sup>:

- (89) *asina [uma d<sup>h</sup>umɔ ts<sup>h</sup>e-m kɔŋk<sup>h</sup>a*  
 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.’

<sup>11</sup> This actually looks like English “he coughed from drinking cold water”



‘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<sup>h</sup>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) *a-pipi-ja*                      *dja-k<sup>h</sup>o*                      *aŋ*      *aɕi*  
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<sup>h</sup>o*                      *aŋa*                      *kuku-kɔ*  
NEG-give-3SG/1SG.NPST-COND      1SG.ERG              uncle-COM

*ke-su*                      *kuku*      *seʔ-dɔ*  
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<sup>h</sup>o*                      *k<sup>h</sup>aruwa.uduwa*  
rain      NEG-come-3SG.NPST-COND      agriculture

*ɔ-ts<sup>h</sup>oʔo*  
NEG-become.3SG.NPST  
‘If it doesn’t rain, there won’t be any agriculture.’

- (97) *aɕanum*      *wale-bi*      *hu*      *ɔ-hɔ-di-m-k<sup>h</sup>o*  
last.year      time-LOC      rain      NEG-come-3SG.PST-NOM-COND

*sukpa*                      *ts<sup>h</sup>ɔʔɔ-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) *aŋa*                    [*k<sup>h</sup>a-wa*                    *g<sup>h</sup>ud-u-m*]                    *sɔ*  
 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) [*k<sup>h</sup>ɔt-ka*]                    *t<sup>h</sup>ɔm*  
 go-NPST.PRT                    (place)  
 ‘place to be visited’

- (100) [*k<sup>h</sup>ɔi-mu-pa-m*]                    *t<sup>h</sup>ɔm*  
 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) *aŋa*                    [*mulusɔsi* *ɖa*                    *ɖa-da-m*]                    *b<sup>h</sup>oʔo*  
 1SG.ERG                    corn                    rice                    eat-3SG.NPST-NOM                    pig

*d<sup>h</sup>ok<sup>h</sup>o-dɔ*

see-1SG/3SG.NPST

‘I see the pig eating corn-rice.’

Head as object of relative:

- (102) [*a-kim-bi*                    *ana-ŋɔ*                    *hoʔ-na-nɔ*  
 2POSS-house-LOC                    2SG.ERG-INT                    bring-2SG/3SG.PST-SEQ

*da-na-m*]

place-2SG/3SG.PST-NOM

*oko*

1.CL

*mina*

person

*d<sup>h</sup>am-wa*

that-ERG

*k<sup>h</sup>ip-da*

cook-3SG/3SG.NPST

‘The person you brought back to your house and placed there is cooking.’

Head as recipient of relative:

- (103) [*aŋa*        *ɕa*    *bi-ŋa-m*]                    *mina*        *duwa-ŋɔ*  
 1SG.ERG    rice    give-1SG/3SG.PST-NOM]    person        much-INT  
  
*malamsu*    *k<sup>h</sup>uts-a*  
 fast            go-3SG.PST  
 ‘The man I gave food to left very fast.’

Head as oblique of relative:

- (104) [*aŋa*        *k<sup>h</sup>itlɔm*    *joʔd-uŋa-m*]                    *subja*    *ɕa-ŋa*  
 1SG.ERG    butter        spread-1SG/3SG.PST-NOM    bread    eat-1SG.PST  
 ‘I ate the bread spread with butter.’<sup>12</sup>
- (105) *d<sup>h</sup>ɔɕam*        [*da-si-m-bi*]                    *ɔ-d<sup>h</sup>oʔd-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*    *kɔm*    *gɔ-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-kɔ*        *nu*    *misi*    *kɔm*    *gɔ-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:

<sup>12</sup> As a main clause, the content of the relative is expressed as:

*aŋa*                    *idɔ subja-bi*        *k<sup>h</sup>itlɔm joʔ-dɔ*  
 1SG.ERG    this bread-LOC    butter    spread-1SG/3SG.NPST  
 ‘I spread butter on this bread.’

- (108) [aŋ    ɖa    bi-ka]                    mina                    [ɖa    ɖi-ka]  
 [1SG rice give-NSPT.PRT]            person                    [rice eat-NPST.PRT]
- mina pu                    duwa-ŋɔ                    malsɔ 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) *idɔ lo-bika idɔ pu tsursɔ go*  
 this stone-ABL this CONTR small be.inan.3SG.NPST  
 ‘This stone is smaller than this stone.’
- (110) *an-bika ne d<sup>h</sup>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:

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

## References

- Lahaussais, Aimée. 2003. "Ergativity in Thulung Rai: a shift in the position of pronominal split". In David Bradley, Randy LaPolla, Boyd Michailovsky & Graham Thurgood (eds.), *Language Variation: Papers on Variation and Change in the Sinosphere and in the Indosphere in Honour of James A. Matisoff* 101-112. Pacific Linguistics. Canberra: Australian National University.
- Lahaussais, Aimée. 2007. Koyi corpus (glossed texts with synchronized sound recordings), available at [http://lacito.vjf.cnrs.fr/archivage/languages/Koyi\\_rai\\_fr.htm](http://lacito.vjf.cnrs.fr/archivage/languages/Koyi_rai_fr.htm)
- Michailovsky, Boyd. Unpublished manuscript (a). "The Dumi verb revisited: lexical bases and stem formation".
- Michailovsky, Boyd. Unpublished manuscript (b). "Internal reconstruction and the Dumi verb".
- Michailovsky, Boyd. Unpublished manuscript (c). "Reconstruction phonologique du groupe kiranti".
- van Driem, George. 1993. *A grammar of Dumi*. Berlin, New York: Mouton de Gruyter (Mouton Grammar Library 10).
- van Driem, George. 2001. *Languages of the Himalayas: An Ethnolinguistic Handbook of the Greater Himalayan Region, containing an Introduction to the Symbiotic Theory of Language* (2 vols.). Leiden: Brill.

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