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► **To cite this version:**

Guillaume Jacques, Aimée Lahaussais. Elevational deixis in the Kiranti verb. *Linguistics of the Tibeto-Burman Area*, 2023, 46 (1), pp.6-34. 10.1075/ltba.21018.jac . hal-04097027

**HAL Id: hal-04097027**

**<https://hal.science/hal-04097027v1>**

Submitted on 14 May 2023

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# Elevational deixis in the Kiranti verb

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May 14, 2023

**Abstract:** This article deals with elevational deixis in Kiranti languages, a feature which is pervasive in these languages in both the verbal and nominal domains. The system of elevation is described in most grammars of these languages as tripartite, following the typologically common system comprising up(wards), same level/across, down(wards) elevations.

This work reviews the available data on elevational deixis in the verbal system, and has two main contributions. First, it shows that motion verbs unspecified for elevation are an essential part of the elevation marking paradigm, and are obligatory in some specific elevational configurations. Second, it argues that on the one hand elevationally marked motion verbs are cognate as whole sets across Kiranti, and probably reconstructible to proto-Kiranti and beyond, and on the second hand that a subgroup of Kiranti including Chintang, Athpare, Belhare and Yamphu have innovated a second set of elevationally-marked motion verbs.

**Keywords:** Kiranti, elevational deixis, motion verbs, Thulung, Khaling, Belhare, Bantawa, case marking

## 1 Introduction

Elevational (or topographical) deixis has been described as a pervasive typological feature in Trans-Himalayan/Sino-Tibetan (Post 2019, 2020), including Lolo-Burmese (Bradley 1979: 354–356; Bradley 2003), Rgyalrongic (Zhang 2020), Bodish (Hyslop 2017: 161) and Tani (Post 2020).

It is particularly conspicuous in Kiranti languages, where a tripartite (upwards, same level, downwards) elevational contrast (Bickel 2001; Jacques and Lahaussais 2014; Michailovsky 2017) is coded by locational/directional adverbs, demonstratives and case markers as well by motion verbs.<sup>1</sup> The

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<sup>1</sup>The Kiranti verbal systems conform to Forker’s (2020: 11) elevational hierarchy, ac-

present work, after a presentation of the main features of elevational deixis across Kiranti, focuses on the encoding of elevation in the verbal system and notably on providing a diachronic picture to explain the diversity currently found among the motion verbs of different languages. We rely on data from our own fieldwork for Thulung and Khaling,<sup>2</sup> and, for other languages, from data found in descriptions in reference grammars and articles focusing on elevational deixis.

## 2 Features of elevational deixis

This section presents the main features of elevational deixis in Kiranti: elevation distinctions made by the languages, the type of elevation coding, and the linguistic domains in which elevation is coded. In addition to this three-way elevational contrast, languages usually also have elevationally unspecified motion verbs and a elevationally ‘neutral’ locative case marker.

### 2.1 Elevation distinctions

Kiranti languages distinguish between three marked elevations: high/upward, low/downward, and same level/across.

Examples (1) and (2), from Khaling and Thulung respectively, illustrate the coding of upward elevation, using a combination of locational adverbs, case markers and motion verbs.

(1) Khaling

*ʔŋ tukka tʰŋnem-tɬ kʰoŋi-ŋa*  
 1SG UP.DISTAL forest-LOC.UP go-N.PST:1SG

‘I will go up into the forest.’ (Ogress S162)

(2) Thulung

*meŋka a-tshora-mim aŋa-ŋa kheŋ-to*  
 thus 1SG.POSS-child-PL UP-INT bring.UP-PST.1SG→3SG

‘Because of this, I brought my children up here.’ (Soamaya’s life)

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cord to which ‘All languages with LEVEL or ACROSS elevationals also have DOWN and UP elevationals.’

<sup>2</sup>Some of the texts cited in this article are included in the Pangloss collection (Michailovsky et al. 2014).

The Bantawa example (3) illustrates the coding of downward elevation, through both a case marker and a downward motion verb.

(3) Bantawa

*hyu-cok-yu*                      *d<sup>h</sup>a-Ø-k<sup>h</sup>a-Ø*  
 down-floor-LOC.UP go.DOWN-N.PST-see-N.PST

‘Please, come down to the lower floor!’ [Doornenbal 2009: 85](#))

An example from Chintang ([Paudyal 2015: 279](#)) illustrates the expression of same level elevation through a demonstrative and a motion verb. As the name implies, same level elevation refers to the elevation at a location or motion at the same level as the speaker or deictic center; in Kiranti languages, it has been referred to with terms such as ‘across’, ‘horizontal’ or ‘same level’. Same level elevation is, significantly, distinct from neutral or unspecified elevation, which is coded using distinct verbs, adverbs and case markers.

(4) Chintang

*yoʔ-ni*                      *bha-iʔ-ni*                      *thab-a*                      *pho*  
 DEM.ACROSS-DIR DEM.PROX-LOC-DIR come.ACROSS-IMP REP

‘Come over here! (Your mother told me to ask you.)’

## 2.2 Type of elevation coding

There are two main interpretations for the elevation coded in Kiranti languages.

First, and by far most frequently, it can refer to a **geophysical** (uphill-downhill) contrast, a common interpretation in mountainous areas such as the Himalayas.

Examples frequently include geographical or landscape features, in relation to which and along which elevation-coded motion occurs. This can be seen in (5) and (6).

(5) Thulung

*hajɯ* *bloku-ɟɯ*                      *las-ta*                      *ni*  
 down river-LOC.DOWN go-PST.3SG indeed

‘He went down to the river below.’

(6) Dumi

*lam-tu*                    *muk-sa*      *minu*  
footpath-LOC.UP stay-NMLZ person

‘the person who stayed above the footpath’ (Rai 2016: 303)

In the following Khaling example, elevation is coded through upward and downward motion verbs, as well as exploiting local knowledge about the elevations of the *ḍhē:s* (highland area) and the *wajl* (lowland area) relative to the Khaling homeland, which serves as the deictic center.

(7) Khaling

*ḍhē:s-lakl*      *brokpe*                    *ratsatsatsa*      *ʔeç-sa*  
highland-ABL highland.insect ONOMATOPOEIA say-CONV  
*je*,    *wajl-lakl*      *noɔmdulem*  
come.DOWN:N.PST:3SG lowland-ABL lowland.insect  
*njejejeje*                    *ʔeç-sa*      *k<sup>h</sup>oŋ*  
ONOMATOPOEIA say-CONV come.UP:N.PST:3SG

‘The highland insect **comes down** from the highlands saying “rachachacha”.  
The lowland insect **goes up** from the lowlands saying “nyeyeyeyeye”’  
(Solme Lamalit, 128–130)

Second, the up vs. down elevational contrast can refer to a **vertical axis**. This interpretation is found in a number of different situations, such as descriptions of birds flying (8), meteorological events, such as rain falling (9) or the position of stars (10), and events or descriptions involving body posture (11).

(8) Khaling

*tseri-bi*      *jā-tɛ-na*    *ʔu-pip*  
earth-LOC come.DOWN-PST:3SG-LNK 3SG.POSS-grandmother  
*bi-tɛ*  
give-PST:(3→3)SG

‘(The kite) **came down** (from heaven) to earth and gave his grand-mother (the comb).’ (Origin, 66)

(9) Khaling

*wə je*  
rain come.DOWN:N.PST:3SG

‘It is raining.’

An upward location along a vertical axis is seen in (10), referring to the position of a star in the sky.

(10) Khaling

*peri-bu-tu tsāi sukra mō:-tɛ*  
heaven-LOC-LOC.UP TOP Polar.Star be-PST:3SG

‘Up in the sky was the Polar Star’ (Ur-Mother 44)

In (11) the up(ward) case marker is used to express a vertical posture with respect to the ground.

(11) Thulung

*atha ne u-khel-la lamdi-pa*  
now TOP 3SG.POSS-leg-LOC.UP walk-ACT.PCP  
*dus-ta-m-ka*  
become-PST.3SG-NMLZ-ERG

‘Because she had become able to walk up on her legs, ...’ [about a child learning to walk].

Both geophysical and vertical elevation are coded using the same morphology in most Kiranti languages. The only documented exception is Mewakhola Limbu (Michailovsky 2015) which has contrasting elevation-coding adverbs opposing vertical vs. geophysical (up vs. uphill/upstream<sup>3</sup>) for upper and lower elevations; note however that for elevation-coding postpositions, the contrast in types of elevation is neutralized for lower elevation, for which there is a single marker covering both geophysical and vertical interpretations.

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<sup>3</sup>The riverine (upstream-downstream) dimension, which is linguistically encoded in other Trans-Himalayan/Sino-Tibetan languages, in particular in Gyalrongic (Sun 2000; Lin 2002; Lai 2017; Zhang 2020 and Tani (Post 2019, 2020), is rarely mentioned in descriptions of Kiranti languages.

### 2.3 Domains of elevation coding

One interesting feature of elevation coding in Kiranti languages is the possibility of marking elevational location/direction in multiple grammatical domains simultaneously, something that can be thought of as elevational concord. All languages have demonstratives, locational/directional adverbs, and motion verbs, and some additionally have locational/directional case markers. Among the languages that do not have locational/directional case markers are Hayu, Athpare, Yakkha, Wambule and Bahing, for which the locational/directional adverbs and/or demonstratives are often cognate with the locational/case markers in the languages which have them. Post (2020: 381) proposes reconstructed forms for both the adverbs and the elevation-coding case markers: an upward form in \*tV, a downward form in \*mV or \*yV, and a same-level form in \*yV or \*nV (all of these are reconstructed with a back-rounded vowel), with far more variability to be found among same-level formatives than among upward and downward .

The examples presented thus far show the phenomenon of elevation concord, as do additional examples (12, 13, 14).

(12) Yamphu

*mettoŋ soŋ-bet-tu sip-pet-tt-æ:*  
 further.up above-LOC-UP fall-RES-PST-EVD

‘[The snake] was a bit further up.’

(13) Khaling

*mɛbenɔ mokho tukû-m demphe-tt*  
 then even.though up.there-NMLZ basket.shelf-LOC.UP  
*?am-si ?ei lû-tɛ-su*  
 make.sleep-REFL.N.PST.3SG INTJ tell-PST:3→3-DU

‘In that case you will sleep up there on the shelf, they told him.’

(14) Thulung

*memma meram nep-ra dha:li mi-jok-awa*  
 then DIST.DEM house-LOC down NEG-come.DOWN-IRR.3SG

‘That [child] did not come down to the house.’

One of the logical consequences of being able to encode elevation in multiple domains is the possibility of discordant marking, namely situations

in which elevation is not consistently marked across the same utterance. This will be discussed in section 4.

### 3 Motion verbs

The focus of this article is the coding of elevational deixis through sets of lexical verbs, and this section presents the motion verbs used to code elevation. As with other grammatical domains, motion verbs code three distinct elevations—high/upward, same level, down/downward are found. In addition to these are motion verbs unspecified for elevation. These are considered to make up the fourth element of the paradigm, for reasons that will be explained below.

The contrast in elevation coding can be seen in (15) for Belhare, where distinct motion verbs are used to express upward, downward and same level motion.

(15) Belhare

- a. *na-ttaŋ-leŋ kat-ma khes-e-no!*  
 DEM-UP-DIR come.UP-INF must-PST-CONF  
 ‘We should have **come up** here!’ (Bickel 1996: 90)
- b. *a-tak-ŋa lancha his-si uŋs-a-naa*  
 1POSS-friend-OBL last.born see-SUP come.DOWN-SUBJ-TOP  
*tas khoŋ-yakt-he*  
 card play-IPFV-PST  
 ‘When my friend **came down** to see Kancha, he was playing cards!’ (Bickel 1996: 108)
- c. *i-na lei?-ŋa-na siŋ-taŋŋ-e goru il-lamma*  
 DIST-DEM plant-INTR.PFT-ART wood-plant-LOC ox DIST-MED  
*ab-yau*  
 come.ACROSS-IPFV:NPST  
 ‘From there, the ox is **coming over** to the tree that has been planted.’ (Bickel 1996: 126)

#### 3.1 Venitive and itive verbs and elevation

We distinguish between venitive motion verbs, describing motion towards the speaker or towards the deictic center (which we gloss ‘come’ and which



are seen in the Belhare examples above), and itive verbs, describing motion away from the speaker or from the deictic center (which we gloss ‘go’).<sup>4</sup>

One characteristic of Kiranti languages is that while they all have elevation-coding venitive verbs, they rarely have elevation-coding itive verbs. Belhare is one of two languages (to the best of our knowledge) with complete sets of both, as can be seen in the elevation-coding itive verbs in the examples below (16).

(16) Belhare

- a. *thəŋŋ-hat-ma hir-e*  
 go.UP-TELIC-INF finish-PST  
 ‘He has already **gone** [on the truck]’ (Bickel 1996: 119)
- b. *e tem-sa yu-ma*  
 INTERJ be.in.contact-SAME.SBJ&TENSE go.DOWN-INF  
*khat-ke i?*  
 go-INCEPTIVE QU  
 ‘Oh! He is **going downhill** together with [the car]?’ (Bickel 1996: 126)
- c. *ma? na-kha-chi loppa ŋ-khat-ket-chi,*  
 PROHIB DEM-N.SG-DU now 3N.SG-go-INCEPTIVE-DU  
*un-chi-tak-chi hale-ro*  
 3-N.SG.POSS-friend-N.SG earlier-ID  
*m-phenn-har-e*  
 3.N.SG-go.ACROSS-TELIC-PST  
 ‘Hold on! These two guys are **going** only now, their friends went much earlier!’ (Bickel 1996: 137)

Another language with elevation-coding itive verbs in addition to venitives is Bantawa. The itive verbs of both Bantawa and Belhare are presented together in Table 1.

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<sup>4</sup>It is worth pointing out that the connection found in some Sino-Tibetan languages between ‘home’ and ‘uphill’ (Post 2019: 243) does not appear to be strongly developed in the Kiranti materials we have access to. Although Schackow (2015: 182) mentions that any location outside the Himalayas is referred to as ‘downhill’ in Yakkha, this statement may simply be an expression of a topographic fact. Examples such as 25, where the homeland is at with a lower elevation, as reflected in the choice of motion verb, do not suggest that there is any particular connection between ‘home’ and ‘uphill’.

Table 1: Itive motion verbs

	Upwards	Downwards	Across	Unspecified
Belhare	<i>t<sup>h</sup>aj-</i>	<i>yu-</i>	<i>p<sup>h</sup>en-</i>	<i>k<sup>h</sup>at-</i>
Bantawa	<i>lont-</i>	<i>d<sup>h</sup>a-</i>	<i>bitt-</i>	<i>k<sup>h</sup>at-</i>

In addition to Bantawa and Belhare, a few other languages show signs of having lexicalized elevation-coding itive verbs. Athpare has the same contrast but only for ‘upwards’ elevation: Ebert (1997b) has both *kat-* ‘come from below’ and *thaj-* ‘climb up, go up’, like Belhare. A cognate of the latter verb is also found in Yakkha (*thaj-* ‘climb’, Schackow 2015: 534). In the available data on Athpare, there is, however, no evidence of ‘same level’ and ‘downwards’ coding on itive verbs, and the Athpare data is best seen as evidence of a possible source for one member of the Belhare set coding elevation and motion away—in the form of a verb coding elevational change but not motional deixis.

Situations like the ones in Athpare and Yakkha, with single members of sets for motion away verbs, raise the issue of the interpretative difficulties with using grammatical descriptions: how should one interpret glosses such as ‘ascend’, ‘climb’? In one sense these are indeed verbs that combine features of motion and elevation, and are as such comparable to other material considered here; on the other hand, the gloss may be an approximation for an action that includes motion and elevational features but is not limited to these, also encoding other aspects of the action such as manner.

Wambule does not have a system of distinct verbal roots to express itive motion, but has compound itive verbs *ga-lwa* ‘go up’ and *pi-lwa-* ‘go (same level)’ built by compounding the corresponding venitive verbs (Table 2) with the elevationally-unspecified *lwa-* ‘go’ (Opgenort 2004: 794). The elevationally-marked motion verb roots *ga-* and *pi-* may thus be interpreted as venitive by default, but are neutral as to motion deixis in this language. The meaning ‘go down’ in Wambule is expressed using the roots *do-* and *dwak-*, which are however also translated as ‘fall’ and ‘come down’ and may not be dedicated itive motion verbs.

The most frequent elevation-coding motion verbs in Kiranti are therefore venitive verbs. Table 2 shows the verb roots corresponding to these meanings in most of the Kiranti languages.<sup>5</sup>

<sup>5</sup>Languages in the table are organized from West to East, with Hayu being the westernmost language. The sources are the following: Hayu (Michailovsky 1988), Thulung (Lahaussais 2003), Wambule (Opgenort 2004), Khaling (Jacques et al. 2015), Dumi (van

Table 2: Venitive verbs

	Upwards	Downwards	Across	Unspecified
Hayu	<i>dzək-</i>	<i>yu-</i>	<i>phi-</i>	?
Thulung	<i>get-</i>	<i>jok-</i>	<i>bik-</i>	<i>rok-</i>
Wambule	<i>ga-</i>	<i>ywa-</i>	<i>pi-</i>	<i>blak-</i>
Khaling	<i>k<sup>h</sup>oŋ-</i>	<i>je-</i>	<i>pi-</i>	<i>fi-</i>
Dumi	<i>k<sup>h</sup>oŋ-</i>	<i>yi-</i>	<i>pi-</i>	<i>ho-</i>
Koyi	<i>k<sup>h</sup>o-</i>	<i>g<sup>h</sup>uʔ-</i>	<i>bhiʔ-</i>	<i>hu-</i>
Kulung	<i>t<sup>h</sup>oŋ-</i>	<i>yu-</i>	<i>ban-</i>	<i>ta-</i>
Camling	<i>saŋ-</i>	<i>i-</i>	<i>ban-</i>	?
Puma	<i>t<sup>h</sup>oŋ-</i>	<i>i-</i>	<i>ben-</i>	<i>ta-</i>
Bantawa	<i>t<sup>h</sup>aŋ-</i>	<i>yi-</i>	<i>ban-</i>	<i>ta-</i>
Chintang	<i>kat-</i>	<i>kuŋs-</i>	<i>t<sup>h</sup>ap-</i>	<i>ti-</i>
Athpare	<i>kat-</i>	<i>uŋs-</i>	<i>ap-</i>	<i>ta-</i>
Belhare	<i>kat-</i>	<i>uŋs-</i>	<i>ap-</i>	<i>ta-</i>
Yakkha	<i>keʔ-</i>	<i>uks-</i>	<i>ap-</i>	<i>ta-</i>
Yamphu	<i>kat-</i>	<i>uks-</i>	<i>ap-</i>	?
Limbu	<i>t<sup>h</sup>aŋ-</i>	<i>yu-</i>	<i>phɛn-</i>	<i>ta-</i>

It is important to highlight that it is the verb roots themselves that express the combination of elevational and motional deixis.<sup>6</sup> The verbs in each language form a suppletive paradigm, in that the verbs have different lexical roots. Three factors lead us to consider that the sets of verbs in Table 2 constitute paradigms.

First, their use is obligatory when conditions are met, the required conditions being motion towards the speaker/deictic center (as well as away from it, for Bantawa and Belhare) combined with the specification of elevation which is either upwards, horizontal, or downwards. The elevation-unspecified member of the sets is not, in fact, a basic motion verb (it is *unspecified*, not *underspecified*, for elevation), as it cannot be used as a substitute for one of the elevation-coding motion verbs: it can be considered to be part of the paradigm, being selected only in specific conditions (when

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Driem 1993; Michailovsky 2012), Koyi (Lahaussais 2009), Kulung (Tolsma 2006), Camling (Ebert 1997a), Chintang (Paudyal 2015), Athpare (Ebert 1997b), Belhare (Bickel 1996, 1997), Bantawa (Doornenbal 2009), Yakkha (Schackow 2015), Yamphu (Rutgers 1998), Limbu (Michailovsky 2002).

<sup>6</sup>Note, however, that associated motion, which also encodes elevation in some Kiranti languages, is expressed through a series of derivational suffixes (Jacques et al. 2021).

elevation change is unknown, or in the conditions described in section 4.2).

In other words, while the elevation-coding motion verbs each code specific elevation and motion deixis, the elevation-unspecified motion verb covers the rest of the semantic space for motion without elevation change (upwards, downwards) or specification (across) (except for situations with neutralization, as described in section 4.2), without overlapping on the elevation coding motion verbs. This property of elevation-unspecified verbs is not reported in typological surveys on elevational deixis<sup>7</sup> (Forker 2020; Post 2020), and may in fact not be relevant beyond the Kiranti languages.

Second, these verbs form a closed class: the languages in our sample only have a single verbal root that meets each of the conditions described (motion + change in elevation). There is however some diachronic evidence about sources for some of these verbs (§6), some of the sources being verbs which code elevation but not motion (verbs such as ‘ascend’, ‘climb’.)

Third, the verbs in these sets have a tendency to grammaticalize into verbal derivational affixes (often called V2’s in South Asia).

The specific contexts where the elevation-unspecified motion verb is obligatory are those where the elevation is unknown. This will typically occur in questions. This can be seen in (17) from Thulung, with the elevation-unspecified motion verb *romu* used to ask where the children are coming from, on account of the elevational path being unknown to the speaker. This contrasts with the verb which follows, namely the same level motion verb *bimu*, which is used, in an imperative form, because the elevational aspect of the path between their current position and the speaker is clear.

(17) Thulung

<i>ba-tsi</i>	<i>a-tsusu-tsip</i>	<i>ba:-lanka</i>	<i>re</i>
stay-IMP.2DU	1SG.POSS-grandchild-DU	where-ABL	FOC
<i>rok-tsi</i>	<i>bik-tsi</i>	<i>bik-tsi</i>	
come-PST.2DU	come.ACROSS-IMP.2DU	come.ACROSS-IMP.2DU	
<i>rwak-ta</i>	<i>retsα</i>	<i>?e</i>	
say-PST.3SG	it.seems	HS	

‘She said “Stay, stay, Grandchildren, where did you come from? Come, come.”’ (Vulture, 79)

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<sup>7</sup>It is possible that what Schapper (2014) refers to as ‘unelevated’ terms have a similar use.

Table 3: Caused accompanied motion verbs (venitive)

	Upwards	Downwards	Across	Unspecified
Hayu	?	<i>yut-</i>	<i>pit-</i>	?
Thulung	<i>k<sup>h</sup>et-</i>	<i>sət-</i>	<i>p<sup>h</sup>it-</i>	<i>ret-</i>
Khaling	<i>k<sup>h</sup>oŋt-</i>	<i>jet-</i>	<i>pit-</i>	<i>fiot-</i>
Dumi	<i>k<sup>h</sup>oŋt-</i>	<i>yit-</i>	<i>pit-</i>	<i>hot-</i>
Koyi	<i>k<sup>h</sup>o-</i>	<i>g<sup>h</sup>u?</i>	<i>bhi?</i>	<i>hu-</i>
Kulung	?	<i>yut-</i>	<i>ban-</i>	<i>tat-</i>
Camling	<i>said-</i>	<i>it-</i>	<i>baid-</i>	?
Bantawa	<i>t<sup>h</sup>akt-</i>	<i>yit-</i>	<i>batt-</i>	<i>tat-</i>
Chintang	<i>katt-</i>	<i>kukt-</i>	<i>t<sup>h</sup>apt-</i>	<i>tat-</i>
Athpare	<i>katt-</i>	<i>ukt-</i>	<i>apt-</i>	<i>tat-</i>
Belhare	<i>katt-</i>	<i>ukt-</i>	<i>apt-</i>	<i>ta-</i>
Yakkha	<i>ket-</i>	<i>ukt-</i>	<i>apt-</i>	<i>ta?</i>
Limbu	<i>t<sup>h</sup>akt-</i>	<i>yut-</i>	<i>phɛtt-</i>	<i>tat-</i>

### 3.2 Caused accompanied motion verbs

In addition to motion verbs, which are intransitive, Kiranti languages also have cognate verbs which express caused accompanied motion: these are transitive verbs (glossed ‘bring’ and ‘take’ respectively for motion towards and away from the speaker/deictic center), and they convey the fact that both subject and object are affected by the motion event. The existence of intransitive and transitive motion verb sets is due to the fact that the caused accompanied motion verbs are derived from the corresponding motion verbs by suffixation of the applicative/causative *-t* suffix (Michailovsky 1985; Jacques 2015). In rarer cases, there is an aspiration alternation between the initial consonant of the motion verb and that of the caused association motion verbs (for instance Thulung *get-* ‘come up’ vs. *k<sup>h</sup>et-* ‘bring up’), or suppletion (Thulung *jok-* ‘come down’ vs. *sət-* ‘bring down’).

Both the motion verbs and caused accompanied motion verbs can, depending on the language, be the locus for the expression of different elevational contrasts. Table 3 lists venitive caused accompanied motion verbs, as well as the elevation-unspecified counterparts, across the various languages.

For languages without an elevation-coding set of itive verbs, there are also no itive caused accompanied motion verbs. Bantawa, however, has a nearly complete set of venitive and itive verbs, shown in Table 4.

A few Kiranti languages (in particular Khaling and Belhare) have gram-

Table 4: Bantawa elevational motion verbs

	Up	Down	Across	Unspecified
come	<i>t<sup>h</sup>aj-</i>	<i>yi-</i>	<i>ban-</i>	<i>ta-</i>
go	<i>lont-</i>	<i>d<sup>h</sup>a-</i>	<i>bitt-</i>	<i>k<sup>h</sup>at-</i>
bring (transitive)	<i>t<sup>h</sup>akt</i>	<i>yit</i>	<i>batt</i>	<i>tat-</i>
take (transitive)	<i>lont-</i>	<i>d<sup>h</sup>ant-</i>	–	<i>k<sup>h</sup>att-</i>

maticalized associated motion markers from motion and caused accompanied motion verbs (Jacques et al. 2021), and the elevation contrast is thus also reflected in complex predicates taking these markers.

Since the grammatical encoding of elevation is completely parallel between motion verbs, caused accompanied motion verbs and associated motion markers, the remainder of the paper will focus on the former.

## 4 Mismatches in the encoding of elevational deixis

All the examples provided above show elevational concord across the various grammatical domains where elevation is expressed in a given utterance.

It happens, however, that one comes across examples in narratives and conversations that appear to contain a mismatch in elevational deixis in the materials: these examples feature discordances in the elevation coded across the locational/directional case markers, demonstratives, adverbs, and motion verbs, combining an elevation-coding formative with an elevation-unspecified formative.

Three distinct situations involving mismatches are detailed in the following sections.

### 4.1 Elevationally neutral locative with elevationally marked motion verbs

One type of apparent mismatch involves the neutral locative marker paired with an elevationally marked verb, as in examples (18, 19, 20).

(18) Chamling

*aso jhara-pa-wa dhiki jhãto-da*  
 now all-NML-ERG husker handmill-LOC  
*mi-y-e-pa pitho camacam de-i chài-ma*  
 3PS-come.DOWN-IPFV-TEMP flour rice what-INDEF leave-INF

*is-e kuneu, mi-riŋa-na mi-prata-ni*  
 be.bad-IPFV INTJ 3PS-say-SEQ 3PS-shout-PART

‘When they come down to the husker and the handmill, nobody must leave any flour or rice!’ (Ebert 2000: 30)

(19) Tamarkhole Limbu

*ijga yetchaba poks-aŋ-aŋ ni embha a-k’wa-re*  
 1SG orphan become.S2-1SG.SO-PA-and EMPH thus 1SG-MB-GEN  
*ku-him-mu thaŋ-aŋ-aŋ sa:ŋwa kott-aŋ*  
 3SG-house-in come.UP.s2-1SG.SO-PA-also buffalo keep.s2-1SG.SO.PA  
*pit kott-aŋ-aŋ way-aŋ*  
 cattle keep.s2-1SG.SO.PA-and be.s2-1SG.SO.PA

‘I became an orphan, so I came up to my maternal uncle’s house and stayed looking after the buffalo and the cattle.’ (<https://doi.org/10.24397/pangloss-0004194>, S131)

(20) Yamphu

*kani i-be?-no? khad-i*  
 we.PI this-LOC-EXCL.FOC come.UP-12PL

‘We came up here.’ (Rutgers 1998: 416, S18)

However, unlike elevationally unspecified motion verbs, which are an essential part of the elevational paradigm in Kiranti languages (see section 4.2), the elevationally neutral locational/directional case marker is not part of the same paradigm as its elevation-coding counterparts. We make this claim on account of the neutral locative marker often combining with elevation-coding case-markers and demonstratives to build compound elevation-coding formatives. This is seen in examples (21) and (22).

(21) Chintang

*u-mu-ba copt-a*  
 DIST-DOWN-LOC look-IMP

‘look there (down)’ (Paudyal 2015: 53)

(22) Yamphu

*metton*      *soŋ-bet-tu*                  *sip-pet-tt-æ:*  
 further.up above-LOC-LOC.UP fall-RES-PST-EVD

‘[The snake] was a bit further up’ (Rutgers 1998: 82)

For this reason, we consider that the neutral locative case marker is actually not unspecified but *underspecified* for elevation, hence the use of the term ‘neutral’.

Therefore, the combination of a neutral case marker with elevation-coding verbs do not represent genuine mismatches in elevation-coding.

## 4.2 Neutralization of deixis

When a scenario involves displacement between elevations, and the deictic center is distinct from the endpoint of the motion, two possible situations can result:

- When the deictic center is not at the same elevation as the endpoint of motion, elevational deixis is neutralized, and only motional deixis is expressed: a motion verb unspecified for elevation is used.
- When the deictic center is at the same elevation but distant from both source and goal, the motional deixis is neutralized, and only elevational deixis is taken into account: an elevation coding motion verb can be used – even when the motion is deictically the opposite of that expressed by the verb. This most likely results from most of the languages not having itive verbs that encode elevation.

In both cases, mismatches in elevational deixis can result between verbs and other domains, as exemplified below.

### 4.2.1 Neutralization of elevational deixis

Examples (23), (24) and (25) illustrate uses of elevationally-unspecified motion verbs in contexts where the starting point of a path is lower or higher than the deictic center, and thus where an elevationally marked motion verb could have been expected instead.

(23) Khaling



*mʌnʌ ʔus-mêṃ-ʔɛ*                      *tsətsə fiōi ɲi-tê-m*  
 then 3DU.POSS-mother-ERG child noise hear-PST.(3→3)SG-NMLZ  
*paʌʰi tʰa tʰətɛ,*                      “*tɛ-bi tsətsə-fiɛm*  
 after know see-PST.(3→3)SG this-LOC child-PL  
*fiō-t-nu”*  
 come.UNSPEC-PST.3-PL

‘After hearing noise [made by] children, their<sub>du</sub> mother knew that [her] children had come here.’ (Solme Lamalit, 71)

In (23), the deictic center (the protagonist referred to as “mother”) is in a tree, while the children move on the ground. The reason for using the elevationally unspecified verb is not simply due to the fact that the mother can only perceive them by hearing and is not even sure of their identity (or their number), but rather because the children are moving towards to deictic center but remain on low elevation, thus not being closer to the elevational center. It is impossible here to use either *kʰoŋ*- ‘come up’ (since they are not coming up the tree) or *pi*- ‘come (same level)’ since they are not moving in the air at the same height as the tree.

(24) Khaling

*tukû-m*                      *ʔû-tu-m*                      *ɖa:skam ni*                      *tʰūnem-pô:*  
 UP.HIGH-NMLZ field-LOC.UP-NMLZ lentil indeed forest-pig  
*fiə-na*                      *mari ɖɛ*                      *rāitsha*  
 come.UNSPEC-LNK a.lot eat:N.PST:(3→3)SG seem.to

‘The boar will come and eat a lot of lentils in the field high up.’ (Ogress 156)

In (24), the deictic center is a house located at a lower elevation than the fields. The use of the unspecified venitive here is due to two factors. First, the direction from which the boar will come is not known in advance. Second, as in the case of (23), the boar indeed gets closer to the deictic center from the point of view of absolute distance, but its endpoint is not on the same elevational level. Using the ‘upwards’ venitive *|kʰoŋ|* ‘come up’ here would imply that the boar was coming from a lower elevation to a place located at the same elevation as the house.

Example (25) from Thulung illustrates a similar situation but with three levels of elevation. The use of different elevation coding verbs paints a picture allowing the audience to situate the actors in their topography: A

Tibetan man brings his daughter down to marry the main character, who is staying in an encampment situated at a higher location than his village (but lower than the Tibetan’s). The main character then goes back to his village without his bride. The ‘downwards’ venitive verb ‘bring down’ is predictably used for the second motion, but for the first one, the unspecified venitive verb *ref-* is used instead. The reason for this is that the deictic center is in the main character’s village, and that the first motion event is between two locations that are both elevationally higher than – and never reaching the elevation of – the deictic center.

(25) Thulung

*aju nep-ra tsjamo-nim*  
 down house-LOC Tibetan-FEM  
*ref-dɯ-m-ka*  
 bring.UNSPEC-PST.(3→3)SG-NMLZ-ERG  
*me-səɖ-u-ja retsa ʔe*  
 NEG-bring.DOWN-(3→3)SG-IRR seem.to HS

‘Because he [Tibetan] brought him [main protagonist] a Tibetan girl, he did not bring her down to his home [lower down, in the ancestral village].’

#### 4.2.2 Neutralization of motion deixis

Neutralization of motion deixis is considerably rarer than the previous case, and the only examples we have found are in elicited material from Bantawa taken from Doornenbal (2009: 109).

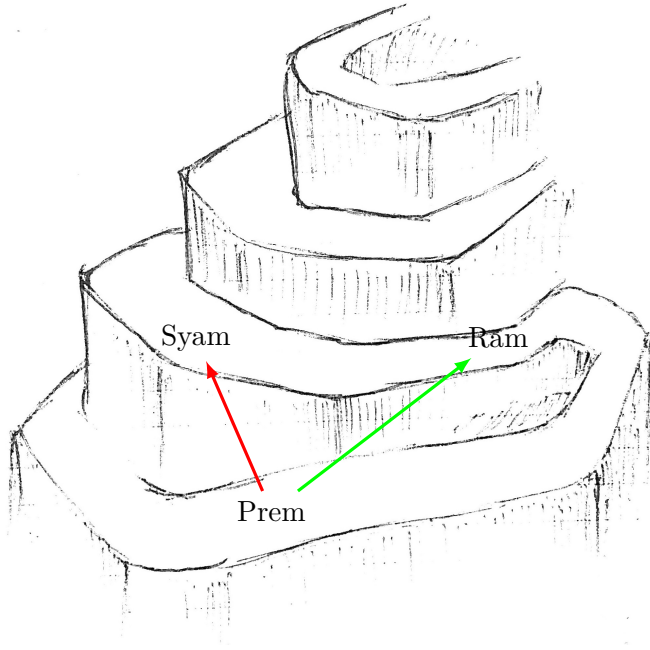
In the scenarios represented in Figures 1 and 2, there are three characters, Prem, Syam and Ram. In Figure 1,<sup>8</sup> Syam addresses Prem (who is located lower) to tell him to move towards his own position (the red arrow), and uses the upwards venitive verb *tʰaŋ-* (26a). To tell him to go to Ram (the green arrow), he has the choice between the elevationally *unspecified* itive (26c), along with a distally marked elevation coding adverb, or, more surprisingly, the upwards venitive verb (26b), accompanied by a nominal phrase indicating that the direction is upwards toward Ram.

(26) Bantawa

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<sup>8</sup>We thank Lai Yunfan for the artwork.

Figure 1: Motion along a slope in Bantawa (first scenario)



- a. *u-d<sup>h</sup>utni t<sup>h</sup>aŋ-a!*  
 this-upwards come.UP-PST  
 ‘Come up towards here!’ (‘Come to me’)
- b. *mu-d<sup>h</sup>utni t<sup>h</sup>aŋ-a!*  
 that-upwards come.UP-PST  
 ‘Come up towards there’ (‘Go to Ram!’)
- c. *ram-ʔo-du k<sup>h</sup>ar-a!*  
 Ram-GEN-LOC.UP go-PST  
 ‘Go to Rām’s place!’

What is surprising about (26b) is that even though the motion involves an upward direction, as expected for the verb [tʰaŋ], this is a venitive verb, and yet the motion takes Prem *away* from, rather than *towards*, the deictic center (which is the speaker, namely Syam). Prem only comes closer to the deictic center from the point of view of elevational deixis, since he ends up at the same elevation as Syam.

The converse situation applies, of course, to venitive verbs with downward elevation, as seen in (27a) and (27b).

(27) Bantawa

- a. *o-hyutni*            *yiw-a!*  
this-downwards come.DOWN-PST  
'Come down here!' (towards me)
- b. *mu-hyutni*            *yiw-a!*  
that-downwards come.DOWN-PST  
'Come down over there!' (towards Syam)
- c. *syam-ʔo*    *yutni*    *k<sup>h</sup>ar-a!*  
Syam-GEN down go-PST  
'Go downwards to where Syam is!'

Because Bantawa has elevation-coding itive verbs as well, the same phenomenon is found with those verbs. In a second scenario (Figure 2), Syam tells Ram to go to Prem, who is located higher than either of them. Here, the upwards itive verb *lont-* must be used (28). This is because the itive verb is used in situations where both elevation and motion are excentric, i.e. away from the deictic center.

(28) Bantawa

*mu-d<sup>h</sup>utni*            *lont-a!*  
that-upwards go.UP-PST

'Go up over there!' (go up, towards that direction, upwards)

The above discussion can be summarized in Table 5. The elevationally marked venitive verbs can be used in two cases: (i) when the subject moves closer to the deictic center of the motion (examples 26a and 27a) or (ii) when it moves to the same elevation as the deictic center, without however moving closer to it (examples 26b and 27b). In case (ii), the elevationally unspecified itive verb *k<sup>h</sup>at-* can be used instead (examples 26c and 27c), but *not* the elevationally marked ones.

Figure 2: Motion along a slope in Bantawa (second scenario)

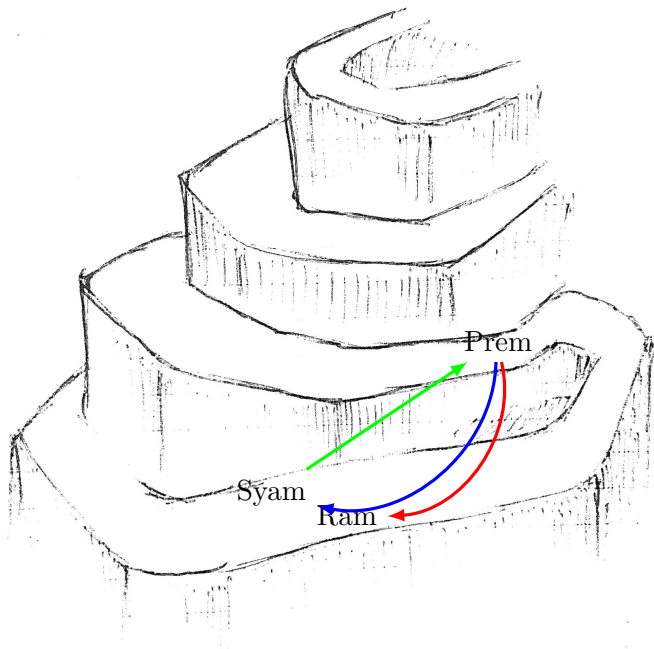


Table 5: Elevation deixis vs. Motion deixis

Example	Verb	Elevation	Motion	Adverb/Noun
(26a)	<i>t<sup>h</sup>aq-</i> VEN+UP	VEN+UP	VEN	VEN+UP
(26b)	<i>t<sup>h</sup>aq-</i> VEN+UP	VEN+UP	ITI	ITI+UP
(26c)	<i>k<sup>h</sup>at-</i> ITI+UNSPEC	VEN+UP	ITI	LOC:UP
(28)	<i>lont-</i> UP+ITI	ITI+UP	ITI	ITI+UP
(27a)	<i>yi-</i> VEN+DOWN	VEN+DOWN	VEN	VEN+DOWN
(27b)	<i>yi-</i> VEN+DOWN	VEN+DOWN	ITI	ITI+DOWN
(27c)	<i>k<sup>h</sup>at-</i> ITI+UNSPEC	VEN+DOWN	ITI	LOC:DOWN

With this distinction, the data in Table 5 can be accounted for with the following rules:

1. Elevationally marked venitive verbs can be used both for motion towards the motional deictic center or towards the elevational deictic center.
2. Motion towards the elevational deictic center, but away from (or not closer to) the motional deictic center can also be expressed with the unspecified itive verb.
3. The elevationally marked itive verbs are only used for motion away from both deictic centers.

In languages where itive verbs lack the elevational contrast, the distinction between elevational and motional deictic centers is still relevant.

In particular, the elevationally unspecified venitive verbs are the only option when the moving entity gets closer to the motional deictic center in terms of absolute distance, but remains at a different elevation (higher or lower), and thus remains equally distant from the elevational deictic center.

This neutralization of either the motional or elevational component in situations such as those described above is one of the factors that can explain what may otherwise appear to be discordant uses of deixis across different word classes within a sentence. The choices in fact come about in scenarios involving more than two elevations or motion not involving the deictic center.

### 4.3 Omission of allative and ablative marking

Another cause for discordant elevational deixis is the fact that allative (for languages which have such a case marker) and ablative case markers are frequently omitted and replaced by elevation coding case markers. Because there is no way to identify the source and goal, in the absence of allative and ablative case markers, there can appear to be discordant, or non-agreeing, elevation marking across a sentence.

In (29) and in (30), Thulung uses an elevation-coding locational/directional case marker ('down(wards)' here), rather than an ablative, to indicate the source; when combined with the upward venitive verb, the use of the case marker appears discordant, until it is clearly identified as the source rather than the goal.

(29) Thulung

*go a:ma nep-ju-m geŋ-ro-m*  
1SG 1SG.POSS house-LOC.DOWN-NMLZ come.UP-PST.1SG-NMLZ

'I came up from my house below.'

(30) Thulung

*hujɯ mina bloku-ju-m ku*  
down.below [hesitation] river-LOC-NMLZ water  
*ha-saka pe-m-thal-miri*  
bring.water-ANT.CVB eat-3PL-HAB-PST.3PL→3

'They brought water from down in the river and drank it.' [Thulung origins, 215]

In these two examples, it is the elevation-coding markers which make it possible, together with the motion verbs, to parse the sentence correctly and identify key elements of the path such as source and goal.

## 5 Fluidity of the deictic center

In section 4.2.2 above, we saw that neutralization of elevational and motion deixis in specific contexts can cause confusion between itive and venitive motion. A similar confusion can arise through another distinct phenomenon, namely shifts in motion deixis within a narrative.

In (31) for instance, the main character leaves his father (who has been transformed into a stone) and goes back to his village; he predictably uses the venitive verb *k<sup>h</sup>əŋ-λ-t-λ* ‘I came up’ when talking to his co-villagers, and invites them to return to the place where he left his father using the itive *k<sup>h</sup>oɔç-ki* ‘let us go’. However, when describing their trip back to this place (of lower altitude), the *venitive* verb *jā-t-nu* (literally ‘they came down’) occurs instead of the itive, apparently to highlight the fact that the main character is among the persons going to that place.

(31) Khaling

“*mebena ʔuŋ-λ ni g<sup>h</sup>rok-tū-ŋ-t-λ-na*  
 then 1SG-ERG TOP leave-put-1SG→3-PST-1SG-LNK  
*k<sup>h</sup>əŋ-λ-t-λ-m lu, ŋoɔpsu-fiem me sēi-bi*  
 come.UP-1SG-PST-1SG-NMLZ SFP clan.members-PL DEM see-LOC  
*k<sup>h</sup>oɔç-ki” lū-t-ε-nu-na k<sup>h</sup>əleŋλ*  
 go-1PI say-PST.3→3-PL-LNK all  
*ʔu-ŋoɔpsu-fiem-kolo jā-t-nu-na*  
 3SG.POSS-clan.members-PL-COMIT come.DOWN-PST.3-PL-LNK  
*sēn-t-ε-nu*  
 see-PST.3→3-PL

“Then I left him there and **came** back. So, clan members, let us **go** look for him” he said to them, and they all **came down** and looked.’  
 Khamnime, 36)

In the following Thulung passage (32a) and (32b), made up of material which is separated by two sentences in a narrative, the deictic center shifts from the Thulung homeland of Mukli – as evidenced by the adverbs *oju*, *ola* (down(wards) and up(wards) respectively), the itive caused accompanied motion verb *λ:ɖu* and the up(wards) locative case marker *-la* in (32a) – to the main protagonist, as seen by the use of locational/directional case markers *-ra* (neutral) and *-ju* (downwards) combined with *-go* (‘inside’), showing that they are from the perspective of the cave; and then back again, with the use of the downward venitive verb *jomu*.

(32) Thulung

a. *oju-lan̄ka nem-lan̄ka λ:ɖu-m*  
 down.here-ABL home-ABL take.away-PST.(3→3)SG-NMLZ  
*la:makuma-mim me-go-la-ŋa*  
 provision-PLU DIST.DEM-inside-LOC.UP-INT



*ɖʒul-thal-lu*                      *?e me-la*  
 place-HAB-PST.(3→3)SG HS DIST.DEM-LOC.UP  
*burkhum-go-la*              *thʌk-ɖɔl-thal-lu*                      *?e*  
 cave-inside-LOC.UP hide-ANTIC-HAB-PST.(3→3)SG HS  
*puː-thal-lu*                      *?e bai-thal-la*                      *?e*  
 eat-HAB-PST.(3→3)SG HS stay-HAB-PST.(3→3)SG HS  
 ‘He used to take food from down here, from home, and used to  
 place it up there, he used to hide it up inside a cave up there  
 and eat it and stay there.’ [Foundation 16]

- b. *burkhum-go-ra*      *kwaː dha-i-thal-lu-ma*  
 cave-inside-LOC mud dig-3SG-HAB-PST.(3→3)SG-CONJ  
*dhwaː-go-ju*                      *thʌk-ɖɔl-lu-ma*  
 earth-inside-LOC.DOWN hide-ANTIC-PST.(3→3)SG-CONJ  
*jok-thal-la*                      *?e*  
 come.DOWN-HAB-PST.3SG HS  
 ‘He used to dig down into the mud in the cave and hide it [the  
 food], and then come down.’ [Foundation 19]

This fluidity in the deictic center, and its ability to shift even within a single sentence, leaves speakers with a great amount of flexibility in the description of the physical environment in which narratives occur.

## 6 Diachronic evolution

All Kiranti languages have elevational motion verbs, and some of these verb forms are cognate across the subgroup.

In this section, we show that nearly all elevational motion verbs in Kiranti fit into two distinct tripartite cognate sets, and propose several historical hypotheses to account for the observed data.

### 6.1 Two sets of elevation deixis verbs

Among Kiranti languages, only Bantawa and Belhare are described as having a tripartite elevation contrast for both venitive and itive verbs (section 3.1).

The system of Belhare (Table 6) is particularly interesting, because both its itive and venitive series have cognates occurring as a set in other languages (at least in East Kiranti): the Belhare itive set is cognate with the Limbu venitive set, while the Belhare venitive set is cognate with its Chintang, Yakkha and Yamphu counterparts.

Table 6: Elevational deixis in Belhare intransitive motion verbs (based on Bickel 1999: 94)

	Itive ‘go’ (set A)	Venitive ‘come’ (set B)
Upwards	<i>t<sup>h</sup>aŋ-</i>	<i>kat-</i>
Downwards	<i>yu-</i>	<i>uŋ-</i>
Across	<i>p<sup>h</sup>en-</i>	<i>aŋ-</i>
Unspecified	<i>k<sup>h</sup>at-</i>	<i>ta-</i>

By contrast, the itive system of Bantawa is completely distinct from those found in its closest relatives, Camling and Puma.<sup>9</sup>

Since there is some discrepancy between languages as to the motion deixis of these verb roots, the unspecified terms ‘set A’ and ‘set B’ are used in the following.

### 6.1.1 Set A

Set A occurs as a complete set in Belhare and Limbu, and in Bantawa it is split between the venitive and the itive verbs. Languages west of Bantawa have set A verbs, but lack the ‘upwards’ verbs.

All three verb roots have cognates elsewhere in Trans-Himalayan/Sino-Tibetan, in particular in Rgyalrongic.

The ‘upwards’ motion verb, reconstructed *\*t<sup>h</sup>aŋ* in Jacques (2017),<sup>10</sup> is clearly related to the locative adverb *thaŋ* ‘up, overhead’ in Limbu (Michailovsky 2015: 115). Outside of Kiranti, we find cognates of this verb in the whole Trans-Himalayan/Sino-Tibetan family, but with a final stop: Chinese has the cognate verb 陟 *tik* ‘ascent’ (Old Chinese *\*trək*, Baxter and Sagart 2014; on the vowel correspondence see Gong 1995), and in Gyalrongic there are cognate nouns or adverbs, such as Japhug *taɣ* ‘up’ (from *\*taq*).

The ‘downwards’ motion verb had the form *\*ju* proto-Kiranti but its rhyme presents irregular correspondences in some languages such as Khaling and Dumi due to the fact that it underwent fusion with person indexation suffix, as is the case in Limbu, where its conjugation is irregular (Jacques

<sup>9</sup>The ‘upwards’ itive verb of Bantawa *lon-* ‘go up’ also means ‘go out’ (Doornenbal 2009: 350), and is cognate to Puma *lon-* ‘come out’, which does not belong to the elevational deixis paradigm.

<sup>10</sup>Concerning the correspondence of Camling *s-* to *t<sup>h</sup>-* in other languages, Michailovsky (2010), who reconstructs *\*Xt* for the set reconstructed here as *\*t<sup>h</sup>*, argues for a consonant cluster, but also indicates that *\*t<sup>h</sup>* is a possible reconstruction, which however implies a specific sound change in Camling (perhaps *\*t<sup>h</sup> → \*θ → s*).

Table 7: Set A motion verbs

	Upwards	Downwards	Across
Hayu		<i>yu-</i>	<i>phi-</i>
Thulung		<i>jok-</i>	<i>bik-</i>
Khaling		<i>je-</i>	<i>pi-</i>
Dumi		<i>yi-</i>	<i>pi-</i>
Koyi		<i>g<sup>h</sup>u?-?</i>	<i>bhi?-</i>
Kulung	<i>t<sup>h</sup>oŋ-</i>	<i>yu-</i>	
Camling	<i>saŋ-</i>	<i>i-</i>	
Bantawa	<i>t<sup>h</sup>aŋ-</i>	<i>yi-</i>	<i>bitt-</i> (itive)
Puma	<i>t<sup>h</sup>oŋ-</i>	<i>i-</i>	
Athpare	<i>t<sup>h</sup>aŋ-</i> (itive)		
Belhare	<i>t<sup>h</sup>aŋ-</i> (itive)	<i>yu-</i> (itive)	<i>p<sup>h</sup>en-</i> (itive)
Yakkha	<i>t<sup>h</sup>aŋ-</i> (itive)		
Yamphu	<i>saŋ-</i> (itive)	<i>yu-</i> (itive)	?
Limbu	<i>t<sup>h</sup>aŋ-</i>	<i>yu-</i>	<i>p<sup>h</sup>en-</i>

2017: 203). This verb is related to the adverbial root reflected by Limbu *yo* ‘down, downhill, downstream’. Outside of Kiranti, cognates of both the motion verbs and their *-t* applicatives are found in Thangmi (*yu-* ‘come down’, Turin 2012), but also further away in Situ Gyalrong: Cogtse Situ *jâ* ‘go downwards’, *jut* ‘take downwards’ (Lin 2017: 61) and Bragbar Situ *jâ*, *jâ*, *jû* ‘se déplacer vers le bas’, *jât*, *jât*, *jût* ‘transporter vers le bas’ (Zhang 2018, 2020). These verbs are mainly used with itive meaning, but also occur in contexts incompatible with the itive, and are better analyzed as having neutral deixis.

There are several similar-looking ‘same level’ venitive verb roots in set A. The first one is reflected by Hayu *p<sup>h</sup>i-*, Thulung *bik-* (with an irregular *-k*, possibly analogical, see Lahaussais 2011), Khaling and Dumi *pi-*, and can be reconstructed as *\*pi-* in proto-Kiranti. The second one corresponds to Belhare *p<sup>h</sup>en-* ‘go across’ and Limbu *p<sup>h</sup>en-* ‘come across’ (possible proto-Kiranti reconstructions for this etymon would be *\*p<sup>h</sup>en* or *\*pen*).

The West and East Kiranti forms, although they do not derive from exactly the same proto-form, are very probably related. Although alternations between *\*ɛ* and *\*i* and the addition of *-n* in Limbu are not regular morphological processes, there are other examples of this correspondence between Limbu and Khaling. In particular note the Khaling verb *p<sup>h</sup>i-* ‘be spoiled (of rice)’ and Limbu *p<sup>h</sup>en-* ‘be spoiled’ (Jacques 2017: 203). While the expla-

nation for these alternations still eludes us, it is not an obstacle to positing cognacy between these roots.<sup>11</sup>

Furthermore, Jacques (2017: 203) analyzes the Bantawa itive verb *bitt-* ‘go (same level)’ as the cognate of *\*pi-* (Bantawa *b-* regularly goes back to proto-Kiranti *\*p-*). The origin of the coda *-tt-* is completely clear, but it is not an obstacle against positing an etymological relationship between these forms.<sup>12</sup>

Outside of Kiranti, cognates of this verb root are found in Rgyalrongic (Cogtse Situ *pi*, stem II of the verb ‘come’, Lin 2003).

### 6.1.2 Set B

The set B verbs are restricted to a subset of Eastern Kiranti languages (Table 8), excluding Limbu.

Table 8: Venitive motion verbs

	Upwards	Downwards	Across
Chintang	<i>kat-</i>	<i>kuŋs-</i>	<i>tʰap-</i>
Athpare	<i>kat-</i>	<i>uŋs-</i>	<i>ap-</i>
Belhare	<i>kat-</i>	<i>uŋs-</i>	<i>ap-</i>
Yakkha	<i>keʔ-</i>	<i>uks-</i>	<i>ap-</i>
Yamphu	<i>kat-</i>	<i>uks-</i>	<i>ap-</i>

The ‘upwards’ verb can be reconstructed as *\*gat-* on the basis of Eastern languages.<sup>13</sup>

It is perhaps tempting to compare Thulung *get-* ‘come up’ and Wambule *ga-* ‘come up’ to this set, but as far as we know there are no good examples of Thulung *-et* corresponding to East Kiranti *-at*, and Wambule normally

<sup>11</sup>Another root form reflected by *ban-* in Kulung, Camling and Bantawa ‘come across’ goes back to *\*pan-* following Michailovsky’s (1994) laws. It is unrelated to the previous forms, as although the initial consonant is the same, there are no other examples of such a correspondence. These verbs are instead to be compared with the non-independent Khaling verb root *-pe-* (from *\*pa*) which appears in the bipartite verb *fiθ-n-pe-ne* ‘reach’.

<sup>12</sup>An interesting gap in Bantawa is the absence of a corresponding itive caused accompanied motion verb (Doornenbal 2009: 125), which would be the equivalent of Khaling *pit-* ‘bring across’, and whose expected form in Bantawa would be *†bit-*. In view of this gap, it is possible that Bantawa *bitt-* actually reflects a double derivation from the same root: first derived into a caused accompanied motion verb by the *-t* applicative suffix, and then back to an intransitive form by middle derivation.

<sup>13</sup>Yakkha *-eʔ-* regularly corresponds to proto-Kiranti *\*-at*, as shown by *kʰeʔ-* ‘go’ from *\*kʰat-*.

preserves a trace of the final *\*t*. It is more straightforward to compare Thulung *get-* ‘come up’ to Limbu *ket-* ‘to arrive, to reach (a destination), to occur’ (33).

(33) Limbu

*ettho mitluŋ*      *ker-ε*  
 up    TOPONYM arrive-PST

He arrived up in Mitlung. (Michailovsky 2002)

The ‘same level’ verb has a *t<sup>h</sup>*- initial in Chintang corresponding to a zero initial in the other languages. As pointed out by Michailovsky (2010), proto-Kiranti *\*t* debuccalizes in Yamphu and Belhare, and this is true of Yakkha too (for instance *\*tuŋ-* ‘drink’ yields Belhare and Yakkha *uŋ-* and Yamphu *uks-*). Thus, a proto-form *\*tap-* could account for the forms of all languages except Athpare, where *\*t-* does not debuccalize regularly (cf Athpare *t<sup>h</sup>uŋs-* ‘drink’). This suggests that Athpare *ap-* ‘come across’ is not a native word, but a borrowing, perhaps from Belhare.

The ‘come down’ verb has *k-* in Chintang corresponding to zero initial in other languages, but there is no evidence that velars debuccalize in Yamphu and Belhare, so that this set is unexplained.

Given the absence of clear cognates of these verbs outside of Eastern Kiranti, it is likely that set B constitutes an innovation for this subgroup.

## 6.2 Historical shifts

The set A paradigm is most likely reconstructible to proto-Kiranti and is possibly older than Kiranti, judging from cognates with the same meaning in Thangmi and Gyalrongic.

Two main hypotheses can be proposed for the function of the set A verbs in proto-Kiranti.

First, one can suppose that the verbs in set A were venitive, as they are in most Kiranti languages. In this hypothesis, the Chintang-Yamphu group has undergone a shift whereby former venitive motion verbs became itive, through elevational contexts where motional deixis is neutralized (Table 5), or as a result of the fluidity that can characterize motion deixis (section 5). Set B verbs were innovated and became a new set of venitive verbs.

Second, it is also possible that set A verbs had an elevational contrast but were neutral with respect to motion deixis, as seems to be the case in Wambule (section 3.1). Limbu on the one hand and Western languages on

the other could have independently innovated by interpreting set A verbs as venitive, whereas they became itive in the Chintang-Yamphu group.

In any case, in both hypotheses, set A is reconstructible to proto-Kiranti, while set B is an innovation. Moreover, while motional deixis may vary across languages, elevational deixis is remarkably stable.

## Abbreviations

In adding to the Leipzig glossing rules, this work uses the following abbreviations: ACT active, ANTIC anticipatory, COMIT comitative, CONF confirmative, CONV converb, INT intensifier, LNK linker, PCP participle, PFT perfect, REP reported speech, RES resultative, SUBJ subject,

## Conclusion

This paper contributes to the study of elevational deixis in both typological and historical perspectives.

Kiranti languages have typologically fairly common elevational systems (Forker 2020) involving ‘upwards’, ‘level/across’ and ‘downwards’ elevations in the verbal system (section 3). However, the Kiranti data contribute to the typology of elevational deixis by showing that the elevation-unspecified motion verbs form, at least for Kiranti, an integral part of the elevation system, in addition to up(wards), down(wards) and level/across categories: they fill the gaps in the semantic spaces not expressible by elevation-specified verbs.

Elevational motion verbs are largely cognate across Kiranti as entire sets (section 6.1), and it is likely that this category is reconstructible to proto-Kiranti. Cognate verbs always have the same elevational deixis, but may be itive in some languages and venitive in others. The synchronic shifts of deixis documented in sections 4.2 and 5 are not only of interest for synchronic description and typology, but also offer plausible models to interpret the data in section 6 from a historical perspective and reconstruct proto-Kiranti.

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