

# Phi-feature in Kulung

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## ABSTRACT

*This paper examines phi features in Kulung, a Central Kiranti language of the Himalayan branch of the Trans Himalayan language family spoken by the Rai community in eastern Nepal and in parts of eastern and southern Sikkim, India, where it is endangered. It describes the realization of person, number, clusivity, and dimension in the verbal agreement system. The study is based on primary data from fieldwork in Assam Lingzey, East Sikkim, supported by earlier descriptive studies. The analysis shows that Kulung has a rich pronominal verbal morphology that encodes three persons and three numbers, namely singular, dual, and plural, and marks the inclusive and exclusive distinction in first-person non-singular forms. Gender is expressed lexically, while grammatical gender is absent in both nominal morphology and agreement. These findings contribute to the typological understanding of phi feature marking in Kiranti languages and highlight the need to document endangered Trans-Himalayan languages.*

**Keywords:** *Kulung, phi-features, person, number, clusivity*

## INTRODUCTION

Kulung [ISO 639-3: *kle*] is a Central Kiranti language of the Himalayan branch of the Trans-Himalayan language family (van Driem 2001). It is spoken by the Kulung Rai community and is recognized as one of the clan or sept languages of the Rai people, with *kulu rih* or *irih* as its native designation. The linguistic diversity of the Rai community is well known, as reflected in the Nepali proverb “as many Rai speeches as there are Rais” (Sinha 2008), and Kulung constitutes one such distinct linguistic variety. The term derives from Kulung [*kuluh*], composed of *ku* ‘water’ and *luh* ‘stone’, meaning ‘water spreading over the stone’ (Rai, 2024; 2025).

In Sikkim, Kulung is spoken in the East, West, and South districts, with no reported speakers in the North District. Despite its presence, there are no official records documenting the language in the region. To address this gap, Rai (2013, 2015, 2017, 2018) conducted fieldwork in Assam Lingzey in the East District and later in the West District of Sikkim, including data collected through online interactions. These studies indicate that Kulung is primarily spoken by elderly members of the community. In Assam Lingzey, the youngest fluent speaker identified was 45 years old, while in the West District the youngest fluent speaker was approximately 35 years old, with varying levels of proficiency. In both regions, speakers are largely bilingual or multilingual, with Nepali, Hindi, and English as dominant contact languages.

Phonologically, Kulung has 27 consonants and 12 vowels, including phonemic vowel length (Rai 2015). The language is characterized by rich pronominal features, which are typologically significant within the Kiranti group. The limited intergenerational transmission and restricted speaker base indicate that Kulung is severely endangered, highlighting the need for detailed linguistic description and documentation.

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## DATA AND METHODOLOGY

The analysis presented in this paper is based primarily on original field data collected from native speakers of Kulung in Assam Lingzey (East Sikkim) and selected locations in West Sikkim. Data were gathered using standard descriptive linguistic methods, including structured elicitation, narrative recordings, and naturalistic conversational data. Additional data were collected through online interactions with speakers where in-person fieldwork was not feasible.

All recorded materials were transcribed using the International Phonetic Alphabet (IPA) and systematically analyzed to identify patterns of person, number, and clusivity marking in verbal morphology. The analysis is supported by previously published descriptions (Rai 2012, 2015) to ensure consistency and comparative reliability. The study adopts a descriptive and typological approach, with particular attention to the representation of phi-features in Kulung and their relevance within the broader Kiranti linguistic context.

### Phi-feature in Kulung

This section examines the phi-features of Kulung, namely person, number, clusivity, and spatial dimension, as realized primarily in the pronominal and verbal agreement systems. Phi-features in Kiranti languages are well known for their morphological richness and complex agreement patterns (Ebert 1997; van Driem 2001; Bickel 2003). While several Kiranti languages, such as Limbu, Bantawa, and Chamling, have been extensively described with respect to person-number agreement, Kulung remains comparatively under-documented, particularly in the Indian context. The present analysis addresses this gap by providing a detailed description of phi-feature marking in Kulung based on original field data from Sikkim.

### Person

Person is a grammatical category that distinguishes the speech act participants: the speaker (first person), the addressee (second person), and the non-participant (third person). Like other Kiranti languages, Kulung exhibits a three-way person distinction. However, unlike some Kiranti languages where person is obligatorily indexed on the verb (e.g. Limbu and Bantawa), Kulung shows partial person agreement, with number being more consistently marked than person.

#### *First person*

Kulung distinguishes three lexical forms for first person based on number: *kɔŋ* (singular), *kas* (dual), and *kei* (plural). Person distinctions are primarily lexical, while verbal morphology encodes number and tense/aspect features.

- |     |   |        |                       |
|-----|---|--------|-----------------------|
| (1) | kɔŋ                                       | sɔŋɔ   | k <sup>h</sup> at-ɔ:  |
|     | 1P.SG                                     | jungle | go-NPST.1P.SG         |
|     | 'I am going jungle.'                      |        |                       |
| (2) | kas                                       | sɔŋɔ   | k <sup>h</sup> at-tsi |
|     | 1P.DU                                     | jungle | go-NPST.DU            |
|     | 'We (two) are going to jungle.'           |        |                       |
| (3) | kei                                       | sɔŋɔ   | k <sup>h</sup> at-e   |
|     | 1P.PL                                     | jungle | go-NPST               |
|     | 'We (more than two) are going to jungle.' |        |                       |

Examples (1) - (3) illustrate first-person singular, dual, and plural constructions in

the non-past tense. The verbal suffix *-ɔ:* indexes first-person singular agreement, whereas *-tsi* marks dual number. In plural contexts, the suffix *-e* marks non-past tense without explicit person-number agreement. This pattern contrasts with languages such as Bantawa, where person and number are more consistently fused in verbal morphology.

Importantly, Kulung exhibits an asymmetry in agreement strength: first-person singular shows clearer agreement marking than plural, suggesting a gradual erosion of agreement morphology – a pattern also observed in some endangered Kiranti languages.

### *Second person*

The second-person pronoun in Kulung is *an*, which combines with number suffixes *-∅* (singular), *-tsi* (dual), and *-ni* (plural). As shown in examples (4) – (6), verbal agreement primarily reflects number rather than person. This aligns with observations in Chamling and Thulung, where second-person agreement is weaker compared to first person.

- (4)    *an-∅*    *səŋə*                    *kʰat-e*  
          2P.SG    jungle                        go-NPST  
          'You<sup>sg</sup> are going to jungle.'
- (5)    *an-tsi*    *səŋə*                    *kʰat-tsi*  
          2P.DU    jungle                        go-NPST.PL  
          'You<sup>du</sup> are going to jungle.'
- (6)    *an-ni*    *səŋə*                    *kʰat-ni*  
          2P.PL    jungle                        go-NPST.PL  
          'You<sup>pl</sup> are going to the jungle.'

Notably, second-person singular does not trigger overt agreement on the verb, while dual and plural contexts show number marking. This further supports the claim that Kulung is transitioning towards reduced person agreement.

### *Third person*

Third person in Kulung is represented by the form *kʰə*. Unlike first and second person, third person does not exhibit a dual distinction, a feature shared with several Kiranti languages such as Limbu and Yakkha. Only singular (*-∅*) and plural (*-tsi/-s*) distinctions are available.

- (7)    *kʰə-∅*    *səŋə*                    *kʰat-e*  
          3P-SG    jungle                        go-NPST  
          'He/she is going to jungle.'
- (8)    *kʰə-tsi/-s*    *səŋə*                    *kʰat-ni*  
          3P-PL                    jungle                        go-NPST.PL  
          'They are going to jungle.'
- (9)    *necʰə-∅*            *səŋə*                    *kʰat-e*  
          brother-SG                    jungle                        go-NPST  
          'Brother is going to jungle.'

Examples (7) - (9) demonstrate that third-person agreement is largely nominal, with verbal agreement limited to number (*-ni* in plural contexts). The absence of a third-person

dual suggests a person-hierarchy effect, where speech-act participants (first and second persons) receive richer morphological encoding than non-participants.

## Number

Kulung distinguishes three numbers—singular, dual, and plural—in the pronominal system, but only singular and plural in nouns and third-person forms. The number markers are  $-\emptyset$  (singular),  $-tsi$  (dual/plural), and  $-ni$  (plural on verbs).

- |      |   |                            |                                |
|------|---|----------------------------|--------------------------------|
| (10) | nec <sup>h</sup> ɔ-tsi<br>brother -PL     | səɔɔ<br>jungle             | k <sup>h</sup> at-e<br>go-NPST |
|      | 'Brothers are going to jungle.'           |                            |                                |
| (11) | sita- $\emptyset$<br>Sita-SG              | səɔɔ<br>jungle             | k <sup>h</sup> at-e<br>go-NPST |
|      | 'Sita is going to jungle.'                |                            |                                |
| (12) | sita-tsi<br>Sita-PL                       | səɔɔ<br>jungle             | k <sup>h</sup> at-e<br>go-NPST |
|      | 'Sita is going to jungle.'                |                            |                                |
| (13) | pi- $\emptyset$<br>cow                    | g <sup>h</sup> as<br>grass | cə:-e<br>eat-NPST              |
|      | 'a cow eating the grass.'                 |                            |                                |
| (14) | pi-tsi<br>cow                             | g <sup>h</sup> as<br>grass | cə:-e<br>eat--NPST             |
|      | 'the cows eating the grass.'              |                            |                                |
| (15) | k <sup>h</sup> ɔŋ- $\emptyset$<br>bowl-SG | tu:-e<br>be-NPST           |                                |
|      | 'a bowl to be there.'                     |                            |                                |
| (16) | k <sup>h</sup> ɔŋ-tsi<br>bowl-PL          | tu:-e<br>be-NPST           |                                |
|      | 'The bowls to be there.'                  |                            |                                |

As shown in examples (10) – (16), nouns do not encode dual number, a restriction also reported in Bantawa and Chamling. The dual category is thus confined to first and second-person pronouns, reinforcing the participant-oriented nature of Kulung number marking.

Furthermore, while plural marking on nouns ( $-tsi$ ) does not always trigger verbal plural agreement, plural subjects in third person typically require  $-ni$  on the verb. This mismatch between nominal and verbal number marking reflects a split agreement system, a characteristic feature of Kiranti morphosyntax.

- |      |  |                |                                |
|------|--|----------------|--------------------------------|
| (17) | k <sup>h</sup> ə- $\emptyset$<br>3P-SG | səɔɔ<br>jungle | k <sup>h</sup> at-e<br>go-NPST |
|      | 'He/she is going to jungle.'           |                |                                |
| (18) | k <sup>h</sup> ə-tsi/-s<br>3P-PL       | səɔɔ<br>jungle | k <sup>h</sup> at-ni<br>go-PL  |
|      | 'They are going to jungle.'            |                |                                |

In (17) and (18) shows there is  $-\emptyset$  (zero morph) marker in third person singular and  $-tsi/-s$  is the marker of plural in the place of subject or third person agent, but  $-tsi/-s$  suffix becomes changed into  $-ni$  marker or suffix in verb place.

As already mentioned, three distinct number has appeared in case of first and second person. Whereas morphologically there are no marker or suffix of first person but lexically differentiate. Further understanding examples are as follow: -

- (19) kɔŋ  
1P.SG  
'I'
- (20) kas- $\emptyset$   
1P.DU-INCL  
'We (you and I)'
- (21) kas-ka  
1P.DU-EXCL  
'We (she/he and I)'
- (22) kei- $\emptyset$   
1P.PL-INCL  
'We (you<sup>pl</sup> and I)'
- (23) kei-ka  
1P.PL-EXCL  
'We (they and I)'

The above examples have also included inclusive and exclusive which will discuss later on (in clusivity).

*an* or second person followed three different number markers:  $-\emptyset$  (singular),  $-tsi$  (dual) and  $-ni$  (plural).

- |      |  |        |                       |
|------|--|--------|-----------------------|
| (24) | an- $\emptyset$                          | sɔŋɔ   | k <sup>h</sup> at-e   |
|      | 2P-SG                                    | jungle | go-NPST               |
|      | 'you <sup>sg</sup> are going to jungle.' |        |                       |
| (25) | an-tsi                                   | sɔŋɔ   | k <sup>h</sup> at-tsi |
|      | 2P-DU                                    | jungle | go-NPST.DU            |
|      | 'you <sup>du</sup> are going to jungle.' |        |                       |
| (26) | an-ni                                    | sɔŋɔ   | k <sup>h</sup> at-ni  |
|      | 2P-PL                                    | jungle | go-NPST.PL            |
|      | 'you <sup>pl</sup> are going to jungle.' |        |                       |

All examples above occur in the non-past tense. The verb *k<sup>h</sup>at-* 'go' marks number agreement, showing overt dual  $-tsi$  and plural  $-ni$  suffixes. However, despite the subject being second person, the agreement morphology aligns with third-person forms in non-singular contexts. This indicates a person-number mismatch or asymmetric agreement pattern, where number is morphologically expressed while person features are neutralized or default to third-person encoding.

This pattern is typologically consistent with Kiranti agreement systems, which often prioritize number over person or exhibit hierarchical alignment in agreement marking. Similar asymmetries have been reported in Bantawa (Doornenbal 2009), Limbu (van Driem 1987), and Yamphu (Rutgers 1998), where dual and plural agreement markers may surface independently of person, or where third-person morphology functions as a default exponent in certain paradigms.

The Kulung data therefore contributes to broader Kiranti typology by demonstrating how phi-features (person and number) may be unevenly realized across pronominal and verbal domains, supporting analyses that treat number as a more robustly grammaticalized feature than person in agreement morphology.

## Clusivity

Clusivity refers to the grammatical distinction between inclusive and exclusive first-person non-singular forms. Like many Kiranti languages (Rai, 2024), Kulung encodes clusivity only in first-person dual and plural pronouns.

Inclusive forms are unmarked  $-\emptyset$ , while exclusive forms take the suffix *-ka*. This pattern is typologically consistent with Kiranti languages such as Limbu and Thulung, where exclusive marking is overt and inclusive remains morphologically zero.

### *Inclusive*

There is no specific inclusive marker but it remains zero morph  $[-\emptyset]$ .

- (27) kas- $\emptyset$                     sɔgɔ                    k<sup>h</sup>at-tsi  
 1P.DU-INCL                    jungle                    go-NPST.DU  
 'We (you and I) are going to jungle.'
- (28) kei- $\emptyset$                     sɔgɔ                    k<sup>h</sup>at-e  
 1P.PL-INCL                    jungle                    go-NPST  
 'We (you<sup>pl</sup> and I) are going to jungle.'

Both dual and plural number marker remains zero or  $[-\emptyset]$ .

### *Exclusive*

*-ka* express the exclusive marker or suffix.

- (29) kas-ka                    sɔgɔ                    k<sup>h</sup>at-tsi-ka  
 1P.DU-EXCL                    jungle                    go-NPST.DU-EXCL  
 'We (she/he and I) are going to jungle.'
- (30) kei-ka                    sɔgɔ                    k<sup>h</sup>at-e-ka  
 1P.PL-EXCL                    jungle                    go-NPST-EXCL  
 'We (they and I) are going to jungle.'

Examples (27) - (30) show that clusivity is marked not only on pronouns but also echoed on the verb, indicating agreement between the subject and predicate. This dual marking of clusivity is relatively rare and constitutes an important contribution of the present study.

## Dimension

Dimension in Kulung functions as a grammatical category encoding the spatial distance of a referent from the speaker. This feature is morphologically expressed in demonstrative pronouns and third-person forms, and distinguishes three degrees of distance: proximate, little distal (medial), and distal.

### *Proximate Dimension*

Referents located close to the speaker are marked as proximate. The forms *uŋkə* and

#k<sup>h</sup>i encode proximate deixis in Kulung.

- (31)    uŋkə            k<sup>h</sup>ɔŋ    tebɔl-tɔ tu:-e  
           PROX.SG bowl    table--LOC    be-NPST  
           'This bowl is on the table.'
- (32)    uŋkə-tsi        k<sup>h</sup>ɔŋ    tebɔl-tɔ tu:-e  
           PROX.PL bowl    table-LOC    be-NPST  
           'These bowls are on the table.'
- (33)    ik<sup>h</sup>i    k<sup>h</sup>im    tu:-e  
           PROX    house   be-NPST  
           'Here is house.'

These examples demonstrate that proximate reference is marked through dedicated demonstrative forms, with plurality expressed by the suffix *-tsi*.

### *Little Distal (Medial) Dimension*

Referents located at a moderate distance from the speaker are encoded as little distal, expressed by the demonstrative *nəkə*.

- (34)    nəkə                            k<sup>h</sup>ɔŋ    tebɔl-tɔ tu:-e  
           DIST (little distant).SG    bowl    table-LOC    be-NPST  
           'That bowl is on the table.'
- (35)    nəkə-tsi                        k<sup>h</sup>ɔŋ    tebɔl-tɔ tu:-e  
           DIST(little distant).PL    bowl    table-LOC    be-NPST  
           'Those bowls are on the table.'

Examples (34) – (35) illustrate that *nəkə* marks little distal reference, while *-tsi* functions as a plural marker.

### *Distal Dimension*

Referents located far from the speaker are marked as distal. The forms *mɯŋkə* and *mik<sup>h</sup>i* encode distal deixis.

- (36)    mɯŋkə k<sup>h</sup>ɔŋ    tebɔl-tɔ tu:-e  
           DIST.SG bowl    table-LOC    be-NPST  
           'That bowl is on the table.'
- (37)    mɯŋkə-tsi        k<sup>h</sup>ɔŋ    tebɔl-tɔ tu:-e  
           DIST.PL            bowl    table-LOC    be-NPST  
           'Those bowls are on the table.'
- (38)    mik<sup>h</sup>i                            k<sup>h</sup>im                    tu:-e  
           DIST                            house                be-NPST  
           'There is house.'

Here, *mɯŋkə* marks singular distal reference, while *-tsi* derives its plural form. The form *mik<sup>h</sup>i* functions as a locative distal demonstrative, indicating a location distant from the speaker.

## CONCLUSIONS

This study has examined the realization of phi-features in Kulung, with particular

attention to person, number, clusivity, and dimension as core grammatical categories shaping pronominal and verbal morphology. The analysis demonstrates that Kulung encodes person and number contrasts both on pronouns and verbs, including a three-way number distinction (singular, dual, plural), a feature typologically characteristic of Kiranti languages. The agreement system further reveals asymmetries between person and number, where number is consistently marked while person features may be neutralized or default to third-person morphology in non-singular contexts. This pattern contributes to broader discussions on hierarchical agreement and feature prominence in Tibeto-Burman languages.

The study also highlights the grammatical role of dimension, a system that encodes spatial distance from the speaker through a three-term deictic contrast: proximate, little distal (medial), and distal. The distribution of forms such as *uŋkə* / *ikʰi*, *nəkə*, and *muŋkə* / *mikʰi* illustrates how spatial deixis interacts with number marking, reinforcing the view that distance is a grammatically salient feature in Kulung. This demonstrates that phi-feature systems in Kulung extend beyond canonical person-number categories to incorporate deictic and discourse-sensitive features.

From a typological perspective, the Kulung data aligns with patterns reported in other Kiranti languages, such as Bantawa, Limbu, and Yamphu, while also presenting language-specific innovations in agreement alignment and demonstrative structure. These findings support the argument that number and spatial reference may be more morphologically robust than person in certain Kiranti agreement systems.

Beyond theoretical implications, this research contributes to the documentation and description of Kulung, an endangered Tibeto-Burman language, and underscores the importance of analyzing phi-features as an integrated system rather than as isolated grammatical categories. Further research incorporating discourse context, corpus data, and comparative Kiranti evidence will deepen our understanding of how morphosyntax, deixis, and feature hierarchies interact in Kulung and related languages.

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