Twenty-second International Linguistics Olympiad

Taipei (Taiwan), July 20–27, 2025

Team Contest Problem

This problem looks at a few languages spoken in eastern Nepal belonging to the Kiranti branch of the Sino-Tibetan family. As part of the same language family, Kiranti languages are distantly related to the Chinese languages, as can be seen by comparing the following Athpare (Kiranti) words with their Mandarin, Cantonese and Hokkien (Chinese) cognates:
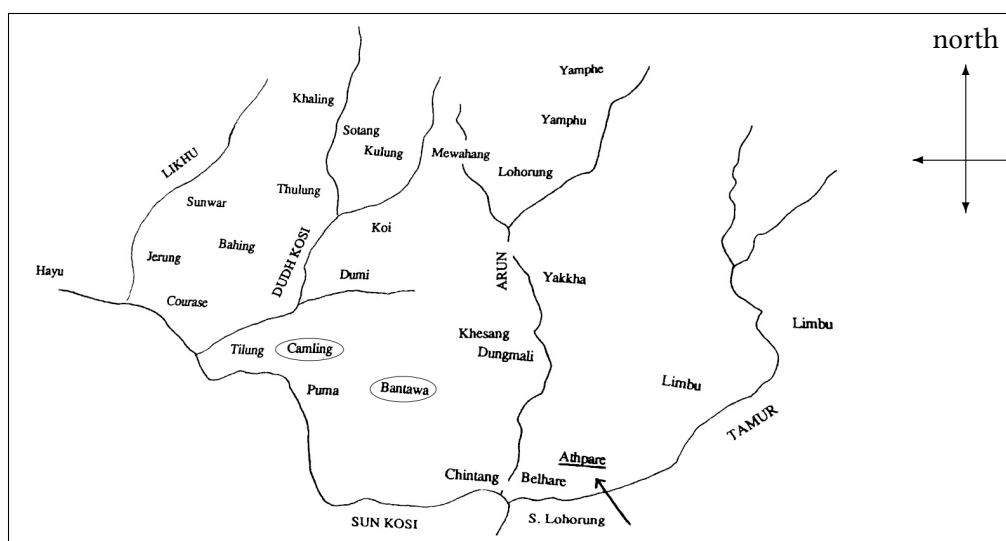
Athpare	**sima**	*to die*	Mandarin	**si3**	*to die*
Athpare	**sepma**	*to kill*	Cantonese	**saat3**	*to kill*
Athpare	**khomma**	*to look for, to search*	Hokkien	**khòa^n**	*to see, look at, watch*

In Kiranti languages, personal pronouns can refer to one person (singular: $\bigcirc_{sg}$), two people (dual: $\bigcirc_{du}$) or more than two people (plural: $\bigcirc_{pl}$). They also distinguish between 'us, including you' (inclusive "we": we^+) and 'us, not including you' (exclusive "we": we^-); for example, we_{du}^+ = 'I + you$_{sg}$'. They do not distinguish pronouns on the basis of gender, so for the sake of simplicity, feminine forms (*she, her*) are used throughout this problem.

The verbs in Kiranti languages change depending on the subject and object of the action, but one verbform can often be used for more than one subject-object pair. This can be seen in the following sets of examples in Athpare. The verbs are given in bold.

unna khani **masedie**	*she killed you$_{pl}$*
unciŋa khani **masedie**	*they$_{du/pl}$ killed you$_{pl}$*
khanciya aŋa **asetciciŋa**	*you$_{du}$ will kill me*
khanna anciŋa **asetciciŋa**	*you$_{sg}$ will kill us$_{du}^-$*

⚠ Athpare is spoken by approx. 5000 people in a number of villages in the Dhankuta district of eastern Nepal. See the map below.

Map of the Kiranti language area
(source: Ebert 1997, *A Grammar of Athpare*)

Part I. Camling

The Camling language (or Chamling) is a Kiranti language spoken by approx. 80,000 people, centered around the Khotang district. **c** = *ts* in *cats*. **ə** = *a* in *about*. **h** indicates aspiration of the preceding consonant. **ng** = *ng* in *sing*. **y** = *y* in *yacht*. ˜ indicates nasalization of a vowel.

(a) Below are some verbs in the North-West dialect of Camling and their English translations. The verbs and translations are split into groups of 8, with the translations in a random order within each group.

Match the verbs with their translations.

1. **takhisika**	3. **lodace**	5. **khisunga**	7. **khisumke**
2. **palodunga**	4. **tyoku**	6. **lodumka**	8. **talodə̃i**

A. *we$_\text{pl}^-$ will comb her*
B. *we$_\text{du}^+$ will tell her/them$_\text{du/pl}$*
C. *I combed her*
D. *she/they$_\text{du/pl}$ told me*

E. *she saw her*
F. *you$_\text{sg}$ combed us$_\text{pl}^-$*
G. *you$_\text{sg/du/pl}$ will tell me*
H. *we$_\text{du}^-$ told her*

9. **taprata**	11. **takhatine**	13. **khicka**	15. **ryunga**
10. **mirie**	12. **khice**	14. **prataci**	16. **dungi**

I. *we$_\text{pl}^+$ drank*
J. *we$_\text{du}^+$ will quarrel;*
   they$_\text{du}$ will quarrel
K. *we$_\text{du}^+$ shouted;*
   they$_\text{du}$ shouted

L. *you$_\text{pl}$ will go*
M. *you$_\text{sg}$ shouted*
N. *we$_\text{du}^-$ quarreled*
O. *they$_\text{pl}$ will laugh*
P. *I laughed*

17. **taidunga**	19. **taidaci**	21. **paidunga**	23. **idacka**
18. **paidacka**	20. **idunga**	22. **idaci**	24. **paidaci**

Q. *I gave her*
R. *she/they$_\text{du/pl}$ gave you$_\text{du}$;*
   you$_\text{du}$ gave her/them$_\text{du/pl}$
S. *they$_\text{du}$ gave her/them$_\text{du/pl}$;*
   she/they$_\text{du/pl}$ gave us$_\text{du}^+$

T. *she/they$_\text{du/pl}$ gave me*
U. *she/they$_\text{du/pl}$ gave us$_\text{du}^-$*
V. *you$_\text{sg/du/pl}$ gave me*
W. *we$_\text{du}^+$ gave her/them$_\text{du/pl}$*
X. *we$_\text{du}^-$ gave her/them$_\text{du/pl}$*

| 25. **seine** | 27. **khinane** | 29. **khõna** | 31. **tõne** |
| 26. **inani** | 28. **prainha** | 30. **lonani** | 32. **cainhani** |

Y. *I/we$_\text{du/pl}^-$ looked at you$_\text{sg}$*
Z. *I/we$_\text{du/pl}^-$ will comb you$_\text{pl}$*
AA. *I/we$_\text{du/pl}^-$ gave you$_\text{pl}$*
BB. *I/we$_\text{du/pl}^-$ will see you$_\text{sg}$*
CC. *I/we$_\text{du/pl}^-$ shouted at you$_\text{sg}$*

DD. *I/we$_\text{du/pl}^-$ beat you$_\text{pl}$ (past)*
EE. *I/we$_\text{du/pl}^-$ will kill you$_\text{sg}$*
FF. *I/we$_\text{du/pl}^-$ told you$_\text{pl}$;*
    I/we$_\text{du/pl}^-$ sold you$_\text{pl}$

| 33. **ritumcum** | 35. **pacaidhunga** | 37. **setumcumka** | 39. **patyokacka** |
| 34. **taphlodace** | 36. **losungcunga** | 38. **praidhɔ̃i** | 40. **talodyucyu** |

GG. *you$_\text{sg}$ told them$_\text{du/pl}$*
HH. *I sold them$_\text{du/pl}$*
II. *she/they$_\text{du/pl}$ saw us$_\text{du}^-$*
JJ. *I will shout at her*

KK. *you$_\text{du}$ will help her*
LL. *she/they$_\text{du/pl}$ beat me (past)*
MM. *we$_\text{pl}^+$ laughed at them$_\text{du/pl}$*
NN. *we$_\text{pl}^-$ killed them$_\text{du/pl}$*

(b) Here are 10 more verbs, this time in the South-East dialect of Camling, and their English translations. Match the verbs with their translations. Some of these verbs are the same in both dialects.

41. **khamipaidhe**	43. **pata**	45. **khapaidhace**	48. **khangyo**
		46. **khatapaidhine**	49. **khata**
42. **khataphoda**	44. **tata**	47. **khakhanga**	50. **mita**

OO. *you$_\text{sg}$ came;*
    she brought her
PP. *she looked at me/us$_\text{du/pl}^\pm$*
QQ. *you$_\text{sg}$ helped me/us$_\text{du/pl}^-$*
RR. *she shouted*
SS. *you$_\text{pl}$ will shout at me/us$_\text{du/pl}^-$*

TT. *she will look at her*
UU. *she went*
VV. *they$_\text{pl}$ will shout at me/us$_\text{du/pl}^\pm$*
WW. *they$_\text{pl}$ came*
XX. *they$_\text{du}$ will shout at me/us$_\text{du/pl}^\pm$*

Part II. Bantawa

The Bantawa language is a Kiranti language spoken by approx. 160,000 people, centered around the Bhojpur district of Eastern Nepal, to the east of Khotang district. **c** = *ts* in *cats*. **ʰ** indicates aspiration of the preceding consonant. **ɨ** ≈ *oo* in *goose* but with the lips unrounded. **ŋ** = *ng* in *sing*. **w** = *w* in *watch*. **y** = *y* in *yacht*. **ʔ** is a consonant (known as the glottal stop).

(c) On the next pages are some verbs in Bantawa. The verbs and translations are split into groups of 12, with the translations in a random order within each group.

Match the verbs with their translations.

1. **tɨsici**	4. **tatcuŋcuʔa**	7. **ittacu**	10. **ici**
2. **paraŋyaŋ**	5. **setniŋni**	8. **tiʔiyaŋa**	11. **patŋa**
3. **patna**	6. **tiʔittu**	9. **pattum**	12. **pattuŋ**

A. $we^{-}_{du/pl}$ *were killing* $you_{sg/du/pl}$;
   $we^{-}_{du/pl}$ *are killing* $you_{sg/du/pl}$

B. we^{+}_{pl} *shouted at her*;
   we^{+}_{pl} *will shout at her*

C. *I will shout*

D. *I shouted at* you_{sg};
   I will shout at you_{sg}

E. *I shouted at her*;
   I will shout at her

F. *I was shouting*

G. you_{sg} *were laughing*

H. you_{sg} *laughed at her*;
   you_{sg} *will laugh at her*

I. we^{-}_{du} *are bringing her*

J. you_{du} *will die*

K. we^{+}_{du} *laughed at her*

L. we^{+}_{du} *will laugh*

13. **nikʰat**	16. **nikʰattaci**	19. **ikʰatta**	22. **nikʰattin**
14. **ikʰatcu**	17. **tikʰatcu**	20. **tikʰatnin**	23. **nikʰattaciʔa**
15. **ikʰattaŋciŋ**	18. **tikʰatŋa**	21. **tikʰattaŋniŋ**	24. **tikʰatŋaŋniŋ**

M. $you_{sg/du/pl}$ *took* $us^{-}_{du/pl}$;
   $you_{sg/du/pl}$ *will take* $us^{-}_{du/pl}$

N. $they_{du}$ *took me*

O. $she/they_{du/pl}$ *took* us^{-}_{du}

P. $they_{du}$ *will take her*

Q. $she/they_{du/pl}$ *took* us^{+}_{du}/you_{du}

R. you_{pl} *took me*

S. you_{pl} *will take me*

T. you_{sg} *will take me*

U. you_{du} *will take her*

V. $she/they_{du/pl}$ *will take* you_{sg}

W. $she/they_{du/pl}$ *took* you_{pl};
   $she/they_{du/pl}$ *will take* you_{pl}

X. $they_{pl}$ *took her*

25. **iptuŋ**	28. **kʰamyumcimka**	31. **tiwatcuci**	34. **wattacuʔa**
26. **tiʔinacuci**	29. **itnanin**	32. **incuʔa**	35. **pɨm**
27. **waknaci**	30. **kʰattu**	33. **tɨkʰansumcim**	36. **tʰaktumka**

Y. *we⁻꜀ₚₗ brought her up*;
   we⁻꜀ₚₗ will bring her up

Z. *I laughed at you_pl*;
   I will laugh at you_pl

AA. *you_du sold them_du/pl*

BB. *I made you_du enter*;
   I will make you_du enter

CC. *you_du will make them_du/pl wear (it)*

DD. *we⁻_du made her wear (it)*

EE. *you_pl sent them_du/pl*;

   you_pl will send them_du/pl

FF. *she took her*;
   she will take her

GG. *we⁻_du will sell her*

HH. *we⁻_pl were looking at them_du/pl*;
   we⁻_pl are looking at them_du/pl

II. *I put her to sleep (past)*;
   I will put her to sleep

JJ. *we⁺_pl gave her*;
   we⁺_pl will give her

37. **mɨkʰiya**	40. **mɨkʰiyaŋa**	43. **imsinka**	46. **waruŋu**
38. **imca**	41. **kʰin**	44. **kʰatyaŋ**	47. **kʰat**
39. **kʰaraŋaci**	42. **waŋaŋ**	45. **mɨkʰiyaŋ**	48. **tʰaŋŋa**

KK. *I entered*

LL. *we⁺_du were going*;
   they_du were going

MM. *we⁻_pl slept*;
   we⁻_pl will sleep

NN. *they_pl quarreled*

OO. *I will come up*

PP. *they_pl were quarreling*

QQ. *she is going*

RR. *we⁺_pl quarreled*;
   we⁺_pl will quarrel

SS. *we⁻_du will sleep*

TT. *they_pl are quarreling*

UU. *she will go*

VV. *she was wearing it*

Part III. Camling and Bantawa

(d) On this page are some verb phrases in English (1–36) and some verbforms in Camling (A–O) and Bantawa (AA–OO).

Each verb phrase in English has a corresponding verbform in either Camling or Bantawa. Match each English verb phrase with its corresponding Kiranti verbform. Some Kiranti verbforms correspond with more than one verb phrase in English.

1. *they$_{\text{du}}$ brought us$_{\text{pl}}^{-}$ over*

2. *she met me*

3. *you$_{\text{sg}}$ were sending me*

4. *we$_{\text{du}}^{-}$ danced for them$_{\text{du}}$*

5. *they$_{\text{du}}$ will leave (it) for you$_{\text{sg}}$*

6. *I will pinch them$_{\text{du}}$*

7. *we$_{\text{pl}}^{-}$ will say*

8. *you$_{\text{du}}$ combed me*

9. *you$_{\text{sg}}$ ground it*

10. *they$_{\text{pl}}$ will help them$_{\text{du}}$*

11. *we$_{\text{du}}^{-}$ are calling them$_{\text{pl}}$*

12. *she will kick me*

13. *she swept them$_{\text{pl}}$*

14. *she is pinching us$_{\text{du}}^{+}$*

15. *she will trample you$_{\text{pl}}$*

16. *she will embrace us$_{\text{pl}}^{-}$*

17. *you$_{\text{sg}}$ helped them$_{\text{du}}$*

18. *they$_{\text{pl}}$ will trample you$_{\text{pl}}$*

19. *you$_{\text{pl}}$ threw (it) at them$_{\text{pl}}$*

20. *we$_{\text{pl}}^{+}$ warned them$_{\text{du}}$*

21. *you$_{\text{pl}}$ are teasing her*

22. *they$_{\text{pl}}$ will embrace us$_{\text{pl}}^{-}$*

23. *you$_{\text{du}}$ will disturb me*

24. *they$_{\text{pl}}$ killed (it) for you$_{\text{sg}}$*

25. *you$_{\text{pl}}$ begged us$_{\text{du}}^{-}$*

26. *she will leave (it) for you$_{\text{sg}}$*

27. *you$_{\text{du}}$ begged us$_{\text{du}}^{-}$*

28. *she brought her down*

29. *they$_{\text{du}}$ killed (it) for you$_{\text{sg}}$*

30. *we$_{\text{du}}^{+}$ will sweep them$_{\text{pl}}$*

31. *we$_{\text{pl}}^{+}$ will say*

32. *I will grind them$_{\text{pl}}$*

33. *she brought us$_{\text{pl}}^{-}$ over*

34. *we$_{\text{pl}}^{+}$ will throw it*

35. *she will put it*

36. *you$_{\text{sg}}$ kept them$_{\text{pl}}$*

Camling (North-West Dialect)

A. **bikucyu**

B. **chikə̃icə̃i**

C. **horsumne**

D. **ityu**

E. **pabaidika**

F. **pakyo**

G. **paphlodocyo**

H. **ringike**

I. **tahordumcum**

J. **taiku**

K. **takhlakine**

L. **tangaide**

M. **tangakacka**

N. **tangasyucyu**

O. **taseida**

Bantawa

AA. **bɨkcuci**	FF. **nɨbʰemsinka**	KK. **tikʰansaŋyaŋ**
BB. **butcuŋcuciʔa**	GG. **nicʰɨkciŋci**	LL. **tɨnetŋaŋciŋ**
CC. **ceŋsumcim**	HH. **tʰoptacuciʔa**	MM. **tipʰasuci**
DD. **idʰapŋa**	II. **tikʰɨttaŋciŋ**	NN. **wintuŋciŋ**
EE. **ituwaŋ**	JJ. **tɨcurumyum**	OO. **yɨŋin**

(e) Translate these verbs from Camling into English, giving all possible interpretations:

i. **idum**	iii. **rinaci**	v. **khangucyu**
ii. **talosumcumne**	iv. **tadungdi**	vi. **tadungace**

(f) Translate these verbs from Bantawa into English, giving all possible interpretations:

i. **tɨcattaŋciŋ**	iii. **tɨduŋyaŋ**	v. **taciŋciʔa**	vii. **paraŋa**
ii. **niseraŋ**	iv. **pɨwacu**	vi. **nɨtaraci**	viii. **iptuci**

(g) Translate to Bantawa:

i. *you$_{\text{du}}$ are entering*

ii. *I was putting them$_{\text{pl}}$ to sleep*

iii. *you$_{\text{sg}}$ are selling her*

iv. *they$_{\text{du}}$ are combing them$_{\text{du}}$*

(h) Translate into Bantawa and Camling (giving the form for both Camling dialects, if different):

i. *we$_{\text{pl}}^{-}$ will bring her*

ii. *she gave us$_{\text{du}}^{-}$*

iii. *we$_{\text{du}}^{-}$ will come*

iv. *they$_{\text{du}}$ will comb you$_{\text{pl}}$*

v. *we$_{\text{du}}^{-}$ killed you$_{\text{sg}}$*

vi. *we$_{\text{pl}}^{-}$ quarreled*

vii. *we$_{\text{du}}^{+}$ went*

viii. *you$_{\text{pl}}$ will shout at me*

ix. *they$_{\text{du}}$ will laugh at you$_{\text{du}}$*

x. *they$_{\text{pl}}$ died*

xi. *she helped her*

xii. *you$_{\text{pl}}$ will kill her*

—*Samuel Ahmed*

Good luck!

en(A)

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Answer sheet

Team: _____

⚠ No additional explanation besides the answers is required, nor will be marked.

Part I.

(a)

1.	2.	3.	4.	5.	6.	7.	8.

9.	10.	11.	12.	13.	14.	15.	16.

17.	18.	19.	20.	21.	22.	23.	24.

25.	26.	27.	28.	29.	30.	31.	32.

33.	34.	35.	36.	37.	38.	39.	40.

(b)

41.	42.	43.	44.	45.	46.	47.	48.	49.	50.

Part II.

(c)

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.

13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.

25.	26.	27.	28.	29.	30.	31.	32.	33.	34.	35.	36.

37.	38.	39.	40.	41.	42.	43.	44.	45.	46.	47.	48.

Part III.

(d)

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.
25.	26.	27.	28.	29.	30.	31.	32.	33.	34.	35.	36.

(e)

  i. **idum** − _____

  ii. **talosumcumne** − _____

  iii. **rinaci** − _____

  iv. **tadungdi** − _____

  v. **khangucyu** − _____

  vi. **tadungace** − _____

(f)

  i. **tɨcattaŋciŋ** − _____

  ii. **niseraŋ** − _____

  iii. **tɨduŋyaŋ** − _____

  iv. **pɨwacu** − _____

  v. **taciŋciʔa** − _____

  vi. **nɨtaraci** − _____

  vii. **paraŋa** − _____

  viii. **iptuci** − _____

(g)

  i. *you*_{du} *are entering* − _____

  ii. *I was putting them*_{pl} *to sleep* − _____

  iii. *you*_{sg} *are selling her* − _____

  iv. *they*_{du} *are combing them*_{du} − _____

(h)

	Bantawa	Camling
i. *we$_{pl}^-$ will bring her*		
ii. *she gave us$_{du}^-$*		
iii. *we$_{du}^-$ will come*		
iv. *they$_{du}$ will comb you$_{pl}$*		
v. *we$_{du}^-$ killed you$_{sg}$*		
vi. *we$_{pl}^-$ quarreled*		
vii. *we$_{du}^+$ went*		
viii. *you$_{pl}$ will shout at me*		
ix. *they$_{du}$ will laugh at you$_{du}$*		
x. *they$_{pl}$ died*		
xi. *she helped her*		
xii. *you$_{pl}$ will kill her*		