

Twenty-second International Linguistics Olympiad

Taipei (Taiwan), 20–27 July 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:

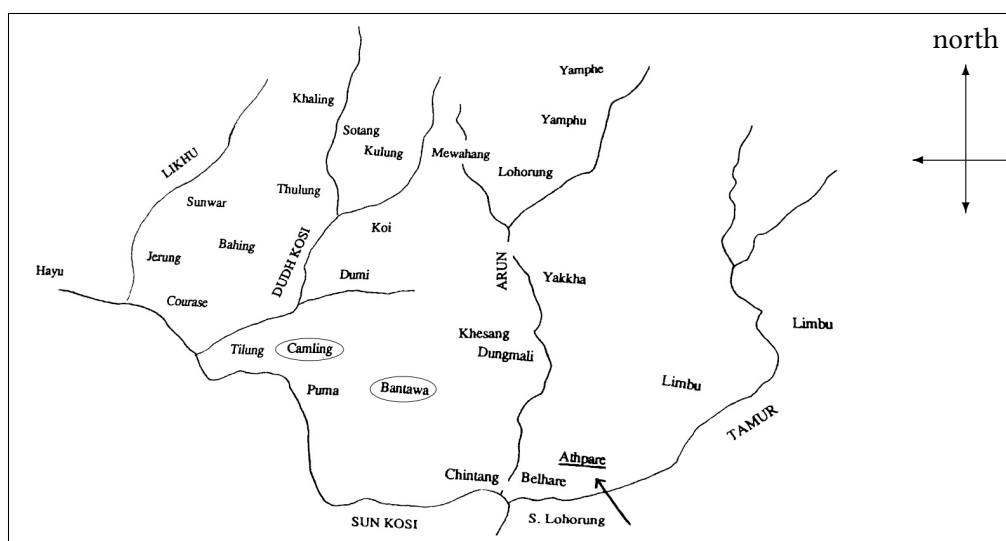
Athpare	sima	<i>to die</i>	Mandarin	si3	<i>to die</i>
Athpare	sepma	<i>to kill</i>	Cantonese	saat3	<i>to kill</i>
Athpare	khomma	<i>to look for, to search</i>	Hokkien	khòa ⁿ	<i>to see, look at, watch</i>

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, $we^+_{du} = \text{‘I + you}_{sg}\text{’}$. 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	<i>she killed you_{pl}</i>
unciŋa khani masedie	<i>they_{du/pl} killed you_{pl}</i>
khanciya aŋa asetciciŋa	<i>you_{du} will kill me</i>
khanna anciŋa asetciciŋa	<i>you_{sg} will kill us_{du}⁻</i>

△ 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, centred 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 nasalisation 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. talodāi
A. we_{pl}^- will comb her		E. she saw her	
B. we_{du}^+ will tell her/them _{du/pl}		F. you_{sg} combed us_{pl}^-	
C. I combed her		G. $you_{sg/du/pl}$ will tell me	
D. she/they _{du/pl} told me		H. we_{du}^- told her	

9. taprata	11. takhatine	13. khicka	15. ryunga
10. mirie	12. khice	14. prataci	16. dungī
I. we_{pl}^+ drank		L. you_{pl} will go	
J. we_{du}^+ will quarrel; they _{du} will quarrel		M. you_{sg} shouted	
K. we_{du}^+ shouted; they _{du} shouted		N. we_{du}^- quarrelled	
		O. they _{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		T. she/they _{du/pl} gave me	
R. she/they _{du/pl} gave you _{du} ; you _{du} gave her/them _{du/pl}		U. she/they _{du/pl} gave us_{du}^-	
S. they _{du} gave her/them _{du/pl} ; she/they _{du/pl} gave us_{du}^+		V. $you_{sg/du/pl}$ gave me	
		W. we_{du}^+ gave her/them _{du/pl}	
		X. we_{du}^- gave her/them _{du/pl}	

25. seine	27. khinane	29. khōna	31. tōne
26. inani	28. prainha	30. lonani	32. cainhani
Y. <i>I/we_{du/pl}⁻ looked at you_{sg}</i>	DD. <i>I/we_{du/pl}⁻ beat you_{pl} (past)</i>		
Z. <i>I/we_{du/pl}⁻ will comb you_{pl}</i>	EE. <i>I/we_{du/pl}⁻ will kill you_{sg}</i>		
AA. <i>I/we_{du/pl}⁻ gave you_{pl}</i>	FF. <i>I/we_{du/pl}⁻ told you_{pl};</i>		
BB. <i>I/we_{du/pl}⁻ will see you_{sg}</i>	<i>I/we_{du/pl}⁻ sold you_{pl}</i>		
CC. <i>I/we_{du/pl}⁻ shouted at you_{sg}</i>			

33. ritumcum	35. pacaidhunga	37. setumcumka	39. patyokacka
34. taphlodace	36. losungcunga	38. praidhã	40. talodyucyu
GG. <i>you_{sg} told them_{du/pl}</i>	KK. <i>you_{du} will help her</i>		
HH. <i>I sold them_{du/pl}</i>	LL. <i>she/they_{du/pl} beat me (past)</i>		
II. <i>she/they_{du/pl} saw us_{du}⁻</i>	MM. <i>we_{pl}⁺ laughed at them_{du/pl}</i>		
JJ. <i>I will shout at her</i>	NN. <i>we_{pl}⁻ killed them_{du/pl}</i>		

(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
42. khataphoda	44. tata	46. khatapaidhine	49. khata
		47. khakhanga	50. mita
OO. <i>you_{sg} came;</i> <i>she brought her</i>	TT. <i>she will look at her</i>		
PP. <i>she looked at me/us_{du/pl}[±]</i>	UU. <i>she went</i>		
QQ. <i>you_{sg} helped me/us_{du/pl}⁻</i>	VV. <i>they_{pl} will shout at me/us_{du/pl}[±]</i>		
RR. <i>she shouted</i>	WW. <i>they_{pl} came</i>		
SS. <i>you_{pl} will shout at me/us_{du/pl}⁻</i>	XX. <i>they_{du} will shout at me/us_{du/pl}[±]</i>		

Part II. Bantawa

The Bantawa language is a Kiranti language spoken by approx. 160,000 people, centred around the Bhojpur district of Eastern Nepal, to the east of Khotang district. **c** = *ts* in *cats*. ^h indicates aspiration of the preceding consonant. **i** ≈ *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. tisici	4. tatcuŋcuʔa	7. ittacu	10. ici
2. parayyaŋ	5. setniŋni	8. tiʔiyaŋa	11. patŋa
3. patna	6. tiʔittu	9. pattum	12. pattuŋ
A. $we_{du/pl}^-$ <i>were killing you_{sg/du/pl}</i> ; $we_{du/pl}^-$ <i>are killing you_{sg/du/pl}</i>		F. <i>I was shouting</i>	
B. we_{pl}^+ <i>shouted at her</i> ; we_{pl}^+ <i>will shout at her</i>		G. <i>you_{sg} were laughing</i>	
C. <i>I will shout</i>		H. <i>you_{sg} laughed at her</i> ; <i>you_{sg} will laugh at her</i>	
D. <i>I shouted at you_{sg}</i> ; <i>I will shout at you_{sg}</i>		I. we_{du}^- <i>are bringing her</i>	
E. <i>I shouted at her</i> ; <i>I will shout at her</i>		J. <i>you_{du} will die</i>	
		K. we_{du}^+ <i>laughed at her</i>	
		L. we_{du}^+ <i>will laugh</i>	

13. nik^hat	16. nik^hattaci	19. ik^hatta	22. nik^hattin
14. ik^hatcu	17. tik^hatcu	20. tik^hatnin	23. nik^hattaciʔa
15. ik^hattayciŋ	18. tik^hatŋa	21. tik^hattayniŋ	24. tik^hatŋayniŋ
M. <i>you_{sg/du/pl} took us_{du/pl}⁻</i> ; <i>you_{sg/du/pl} will take us_{du/pl}⁻</i>		S. <i>you_{pl} will take me</i>	
N. <i>they_{du} took me</i>		T. <i>you_{sg} will take me</i>	
O. <i>she/they_{du/pl} took us_{du}⁻</i>		U. <i>you_{du} will take her</i>	
P. <i>they_{du} will take her</i>		V. <i>she/they_{du/pl} will take you_{sg}</i>	
Q. <i>she/they_{du/pl} took us_{du}⁺/you_{du}</i>		W. <i>she/they_{du/pl} took you_{pl}</i> ; <i>she/they_{du/pl} will take you_{pl}</i>	
R. <i>you_{pl} took me</i>		X. <i>they_{pl} took her</i>	

25. iptuŋ	28. k^hamyumcimka	31. tiwacuci	34. wattacuʔa
26. tiʔinacuci	29. itnanin	32. incuʔa	35. pim
27. waknaci	30. k^hattu	33. tik^hansumcim	36. t^haktumka
Y. <i>we_{pl}⁻ brought her up; we_{pl}⁻ will bring her up</i>		<i>you_{pl} will send them_{du/pl}</i>	
Z. <i>I laughed at you_{pl}; I will laugh at you_{pl}</i>		FF. <i>she took her; she will take her</i>	
AA. <i>you_{du} sold them_{du/pl}</i>		GG. <i>we_{du}⁻ will sell her</i>	
BB. <i>I made you_{du} enter; I will make you_{du} enter</i>		HH. <i>we_{pl}⁻ were looking at them_{du/pl}; we_{pl}⁻ are looking at them_{du/pl}</i>	
CC. <i>you_{du} will make them_{du/pl} wear (it)</i>		II. <i>I put her to sleep (past); I will put her to sleep</i>	
DD. <i>we_{du}⁻ made her wear (it)</i>		JJ. <i>we_{pl}⁺ gave her; we_{pl}⁺ will give her</i>	
EE. <i>you_{pl} sent them_{du/pl};</i>			

37. mik^hiya	40. mik^hiyana	43. imsinka	46. waruŋu
38. imca	41. k^hin	44. k^hatyaŋ	47. k^hat
39. k^haraŋaci	42. waŋaŋ	45. mik^hiyaŋ	48. t^haŋŋa
KK. <i>I entered</i>		QQ. <i>she is going</i>	
LL. <i>we_{du}⁺ were going; they_{du} were going</i>		RR. <i>we_{pl}⁺ quarrelled; we_{pl}⁺ will quarrel</i>	
MM. <i>we_{pl}⁻ slept; we_{pl}⁻ will sleep</i>		SS. <i>we_{du}⁻ will sleep</i>	
NN. <i>they_{pl} quarrelled</i>		TT. <i>they_{pl} are quarrelling</i>	
OO. <i>I will come up</i>		UU. <i>she will go</i>	
PP. <i>they_{pl} were quarrelling</i>		VV. <i>she was wearing it</i>	

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. $they_{du}$ brought us_{pl}^- over | 19. you_{pl} threw (it) at $them_{pl}$ |
| 2. she met me | 20. we_{pl}^+ warned $them_{du}$ |
| 3. you_{sg} were sending me | 21. you_{pl} are teasing her |
| 4. we_{du}^- danced for $them_{du}$ | 22. $they_{pl}$ will embrace us_{pl}^- |
| 5. $they_{du}$ will leave (it) for you_{sg} | 23. you_{du} will disturb me |
| 6. I will pinch $them_{du}$ | 24. $they_{pl}$ killed (it) for you_{sg} |
| 7. we_{pl}^- will say | 25. you_{pl} begged us_{du}^- |
| 8. you_{du} combed me | 26. she will leave (it) for you_{sg} |
| 9. you_{sg} ground it | 27. you_{du} begged us_{du}^- |
| 10. $they_{pl}$ will help $them_{du}$ | 28. she brought her down |
| 11. we_{du}^- are calling $them_{pl}$ | 29. $they_{du}$ killed (it) for you_{sg} |
| 12. she will kick me | 30. we_{du}^+ will sweep $them_{pl}$ |
| 13. she swept $them_{pl}$ | 31. we_{pl}^+ will say |
| 14. she is pinching us_{du}^+ | 32. I will grind $them_{pl}$ |
| 15. she will trample you_{pl} | 33. she brought us_{pl}^- over |
| 16. she will embrace us_{pl}^- | 34. we_{pl}^+ will throw it |
| 17. you_{sg} helped $them_{du}$ | 35. she will put it |
| 18. $they_{pl}$ will trample you_{pl} | 36. you_{sg} kept $them_{pl}$ |

Camling (North-West Dialect)

- | | | |
|--------------|----------------|----------------|
| A. bikucyu | F. pakyo | K. takhlakine |
| B. chikõicõi | G. paphlodocyo | L. tangaide |
| C. horsumne | H. ringike | M. tangakacka |
| D. ityu | I. tahordumcum | N. tangasyucyu |
| E. pabaidika | J. taiku | O. taseida |

Bantawa

AA. bikcuci	FF. nib ^h emsinka	KK. tik ^h ansanyaŋ
BB. butcuŋcuciʔa	GG. niç ^h ikciŋci	LL. tinetŋaŋciŋ
CC. ceŋsumcim	HH. t ^h optacuciʔa	MM. tip ^h asuci
DD. id ^h apɲa	II. tik ^h ittanɲi	NN. wintuŋciŋ
EE. ituwaŋ	JJ. ticurumyum	OO. yiŋin

(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. ticattanɲi | iii. tidunyaŋ | v. taciŋciʔa | vii. paraŋa |
| ii. niseran | iv. piwacu | vi. nitaraci | viii. iptuci |

(g) Translate to Bantawa:

- | | |
|---|--|
| i. <i>you_{du} are entering</i> | iii. <i>you_{sg} are selling her</i> |
| ii. <i>I was putting them_{pl} to sleep</i> | iv. <i>they_{du} are combing them_{du}</i> |

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

- | | |
|---|---|
| i. <i>we_{pl}⁻ will bring her</i> | vii. <i>we_{du}⁺ went</i> |
| ii. <i>she gave us_{du}⁻</i> | viii. <i>you_{pl} will shout at me</i> |
| iii. <i>we_{du}⁻ will come</i> | ix. <i>they_{du} will laugh at you_{du}</i> |
| iv. <i>they_{du} will comb you_{pl}</i> | x. <i>they_{pl} died</i> |
| v. <i>we_{du}⁻ killed you_{sg}</i> | xi. <i>she helped her</i> |
| vi. <i>we_{pl}⁻ quarrelled</i> | xii. <i>you_{pl} will kill her</i> |

—Samuel Ahmed

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English text: Samuel Ahmed.

Good luck!

$$\text{en}(\mathbf{B})$$

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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)

[illegible]

Part II.

(c)

[illegible]

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. ticattançin — _____
- ii. niseran — _____
- iii. tidunyan — _____
- iv. piwacu — _____
- v. taciñci?a — _____
- vi. nitaraci — _____
- vii. paraña — _____
- 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. <i>we_{pl}⁻ will bring her</i>		
ii. <i>she gave us_{du}⁻</i>		
iii. <i>we_{du}⁻ will come</i>		
iv. <i>they_{du} will comb you_{pl}</i>		
v. <i>we_{du}⁻ killed you_{sg}</i>		
vi. <i>we_{pl}⁻ quarrelled</i>		
vii. <i>we_{du}⁺ went</i>		
viii. <i>you_{pl} will shout at me</i>		
ix. <i>they_{du} will laugh at you_{du}</i>		
x. <i>they_{pl} died</i>		
xi. <i>she helped her</i>		
xii. <i>you_{pl} will kill her</i>		