

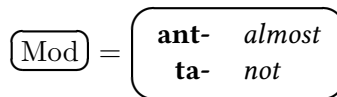
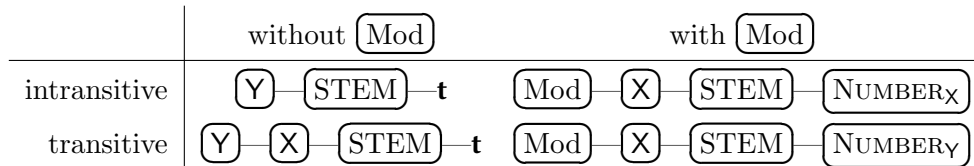
Fifth Asia Pacific Linguistics Olympiad

9 – 23 April 2023

Solutions

Problem 1.

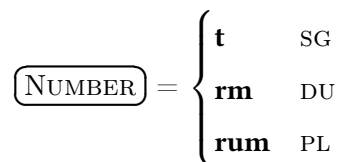
1. Verb structure:



	intransitive	transitive	
		subject > object	subject < object
X	subject	subject	object
Y		object	subject

1st > 2nd > 3rd

	subject	object	subject
	Y		X
1 st DU	kapa	ŋkra	
1 st PL	ipa	kra	kay
2 nd DU	kapwa	ŋkul	ŋkran
2 nd PL	ipwa	kul	nan
3 rd SG	na		pu
3 rd DU	impa		



- (a) 15. *We two have cut him.*
- (b) 18. *We all have slept.*
 19. *You two have almost cut them two.*
 20. *He hasn't come.*
- (c) 21. **antpuwat**
 22. **taŋkratut**
 23. **taŋkrawaykrum**
 24. **antŋkranturum**
 25. **impakulkrat**

Problem 2.

1. Order of constituents: prefixes – noun – suffixes
2. Prefixes: [PRE] – †a – NEG – others
 - [PRE] = †a·k- ~ †a- ~ †a·q- — unknown
 - †a- — ‘again’
 - NEG = †it- — ‘not’
 - †mak- ~ †makqa- — ‘strong’ (< mak- ‘bone’); san- — ‘bad’; suk- — ‘good’
3. Suffixes: -nana – -nam – -ni
 - -nana — ‘little’
 - -nam — ‘someone’s...’
 - -ni — ‘it is ...’
4. kamnuq†u ‘white (adjective)’ / †a·knuq†u ‘white (noun)’ (< †u ‘snow’)

- (a)
- | | | | | |
|-----|-----------------|---|----|-------------------------|
| 1. | †a·k†u | — | d. | snow |
| 2. | †a·k†a†amnam | — | o. | someone’s head |
| 3. | †a·ki†miyit | — | q. | sky |
| 4. | †a·ki†wi·nam | — | g. | someone’s heart |
| 5. | †a·knuq†u†am | — | l. | American eagle |
| 6. | †a·kwum | — | h. | stomach |
| 7. | †a·q†a | — | i. | inside (noun) |
| 8. | †a·qatnananam | — | m. | someone’s short tail |
| 9. | †makwumnana | — | f. | Little Strong Belly |
| 10. | †a suki†miyitni | — | n. | it is sunny again |
| 11. | †a sani†wi·ni | — | e. | it is angry again |
| 12. | †it†itni | — | j. | it is blind |
| 13. | kamnuq†uqatnana | — | a. | young white-tailed deer |
| 14. | mak | — | b. | bone |
| 15. | maknana | — | p. | token (for a game) |
| 16. | san†a | — | k. | Piegans |
| 17. | sani†miyit | — | c. | bad weather |

(b) †a — again, inside.

- (c)
- | | | | |
|-----|-------------|---------------------------------|--|
| 18. | †a·qatwum†a | [PRE] – tail – stomach – inside | (that which holds the tail and stomach inside) |
| 19. | †a†it†u | again – NEG – snow | (again no snow) |

- (d)
- | | | |
|-----|---------------|--------------------------------|
| 20. | †itqatni | it is tailless, it has no tail |
| 21. | †a·ki†wi·nana | little heart |

- (e)
- | | | |
|-----|------------------------|--|
| 22. | someone’s good stomach | sukwumnam |
| 23. | eye | $\underbrace{\text{†a·kaq†it}}_{\text{[PRE]}}$ |

Problem 3.

- 1 **wañig nibö** 4 **yigwo milö** 7 **mudun** 10 —
- 2 **yigwo** 5 **mamid** 8 **raleb** 11 **agip**
- 3 **yigwo aŋ nibö** 6 **kagoł** 9 — 12 —

- $20X [\text{ado gi da } Y] = 20X [+ Y]$ ($1 \leq X \leq 3, 1 \leq Y \leq 23$)

$$20X = \begin{cases} \text{ñinjuöl} & (X = 1) \\ \text{ñinjuöl mihöp} & (X = 2) \\ \text{ñinjuöl mihau nigaŋ} & (X = 3) \end{cases}, \quad Y = \begin{cases} Y & (1 \leq Y \leq 12) \\ (24 - Y) \text{ böŋ daŋ} & (13 \leq Y \leq 23) \end{cases}$$

(a) $2 \times 38 = 76$

- (b) 8 **raleb**
19 **mamid böŋ daŋ**
23 (i) **wañig nibö böŋ daŋ**
 (ii) **ñinjuöl ado gi da yigwo aŋ nibö**
53 **ñinjuöl mihöp ado gi da agip böŋ daŋ**
61 (i) **ñinjuöl mihau nigaŋ ado gi da wañig nibö**
 (ii) **ñinjuöl mihöp ado gi da yigwo aŋ nibö böŋ daŋ**
66 **ñinjuöl mihau nigaŋ ado gi da kagoł**

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Solutions

Problem 4.

1. Sentence structure: $\begin{cases} S (...) O (...) V & (...): 'in ...', 'for ...' \\ S T \quad \boxed{T = N - da - Gender (S) - o} & 'S belongs to N' \end{cases}$

2. Noun phrase structure: $\begin{cases} \boxed{N} \boxed{D} & N = S \text{ or } O \\ \boxed{D} - \text{daga} \boxed{N} & N = \text{Possessor or } \dots\text{wo/ra} \end{cases}$

– $\boxed{D} = e - \boxed{Gender} - ai$ 'this', $o - \boxed{Gender} - oi$ 'that'

3. Noun structure: $\boxed{STEM} - \boxed{Gender} (+ \boxed{Case})$

– Case: **-wo** 'in ...', **-ra** 'for ...'

– Kin terms: $\boxed{Possessor} + \boxed{STEM} - \boxed{Gender} (+ \boxed{Case})$

– Possessor ('my, our, his') \Leftrightarrow 6. Person

– **qotoqowar-** 'child', **qid-** 'parent', **maroq-** 'sibling'

4. Possession: Possessor **aga** Possessee

5. Verb structure: $\begin{cases} \text{me}^\dagger - \boxed{O} - \boxed{STEM} - \boxed{Gender (S)} & \text{present} \\ \boxed{O} - \boxed{STEM} - \text{sa} - \boxed{Gender (S)} & \text{future} \end{cases}$

† **me** > **mo** / **_o** – Verb stems: **obo** 'to hit', **oote** 'to become ill', **qaqa** 'to bite',

– **O** \Leftrightarrow 6. Person **qe** 'to speak', **Ra*** 'to cry', **Re*** 'to sleep', **Roo*** 'to fall',

see 'to cut'

6. Person: **Ra-*** 1st SG, **Ri-*** 1st PL, \emptyset 3rd SG

* **R** = $\begin{cases} \mathbf{n} \ \# _ & \text{e.g. } \mathbf{Ra-} \text{ 1}^{\text{st}} \text{ SG} > \mathbf{naqaqasabi, meraqaqabi} \\ \mathbf{r} \ \text{otherwise} & \mathbf{Roo} \text{ 'to fall'} > \mathbf{noosabe, meroobi} \end{cases}$

		in T/D	in N	in V
7. Gender:	masculine	-s	-e	-bi
	feminine	-w	-o	-be

(a) 18. *This house belongs to my father.*

19. *The mouse will speak for this fish.*

20. (i) *He hits our mother's boar.*

(ii) *Our mother's boar hits him.*

21. *The hawk falls in that devil's house.*

(b) 22. **Bido merebe.**

23. **Peraqote osoi niqotoqowarora niobosabi.**

24. **Buquro owoi maroqedawo.**

25. **Esaidaga mesidae aga qide owoidaga murowo moobobi.**

26. **Buqaritawe aga qibiro taragarowo meraseebe.**

Problem 5.

1. Sentence structure: Location S V

2. Noun phrase structure:
$$\begin{cases} N^* & N \\ \mathbf{na/khe}^\dagger - N^* & \textit{my/his N} \\ N_1 - \mathbf{V}^H_{\rightarrow} & N_2^* \quad N_1 \textit{'s N}_2 \end{cases}$$

* $C_\sigma \rightarrow \emptyset$ (C_σ : word-final consonant)

† $CV + V_\alpha (=v) \rightarrow CV_\alpha$
 $CV + V_\alpha (\neq v) \rightarrow CVnV_\alpha$ (V_α : word-initial vowel)

3. Verb structure: STEM — -no plural — -khV^H_← question

– usually: STEM → STEM — STEM — ma

4. Vowel harmony:
$$V^H = \begin{cases} \mathbf{a} & V_T = \mathbf{a} \\ \mathbf{e} & V_T = \mathbf{e, i, \ddot{u}} \\ \mathbf{o} & V_T = \mathbf{o, u} \end{cases}$$
 $V_T(C)V^H_{\leftarrow}$ $V^H_{\rightarrow}(C)V_T$

5. Verb stems:

lei ‘lying’	human nouns	<i>cucumber, snake, worm</i>
le ‘standing’		<i>tree, house, dog</i>
ba ‘sitting’		<i>bird</i>

- (a) 16. *The children are in the water garden.*
 17. *Is his wife’s worm usually in my water?*
- (b) 18. *The child is usually in my tree [standing].*
 19. *Is my wife usually there [sitting]?*
- (c) 20. (i) *His friends are in his jungle.*
 (ii) *His houses are in his jungle.*
- (d) 21. **Khedolo khenamiya leino.**
 22. **Areyo dodo lekhe?**
 23. **Nayo khuro na leno.**
 24. **Khuro namakhü lelemakha?**