Twenty-first International Linguistics Olympiad

Brasília (Brazil), July 23–31, 2024

Individual Contest Solutions

Problem 1. Structure of the verb form:

1. subject (**t-** 1st person sg, **mət-** 1st person du/1st person pl, ∅- 2nd person sg, **ne-** 3rd person du=3rd person pl)

2. ə materialises here if and only if needed to avoid a cluster of two consonants word-initially or word-finally, or a cluster of three consonants in any position.

3. tense (**ku-** present, **je-** future, ∅- past)

4. **ine-**: direct object = 1st person sg (subject = 2nd person du/2nd person pl)

5. verb root

6. **-la**: subject/direct object = 1st person pl/2nd person pl

7. tense (**-ŋ** present/future, **-∅** past)

8. ə materialises here if and only if needed to avoid a cluster of two consonants word-initially or word-finally, or a cluster of three consonants in any position.

9. **-tək**: subject = 2nd person du/2nd person pl (direct object = 1st person sg);
   direct object (**-tək** 2nd person du/2nd person pl, **-n** 3rd person sg, **-net** 3rd person du, **-new** 3rd person pl)

Sound changes:

1. the final vowel of a prefix is lost before another vowel;

2. **t+j > cc, t+l > ll, t+n > nn, t+ŋ > ṇŋ**;

3. if **a** is present, all **e/i/u** in the word become **a/e/o**, respectively.

(a)
19.	**kulleŋən**	*you*(sg) *lead him*
20.	**jinejguŋtək**	*you*(du) *will bite me*
21.	**tekminnew**	*I caught them*(pl)
22.	**təjohallaŋtək**	*I will wait for you*(pl)
23.	**mətkonŋevlaŋən**	*we*(pl) *send him*

(b)
24.	*you*(sg) *will see them*(du)	**jelhuŋnet**
25.	*we*(pl) *bit him*	**mətəjgolan**
26.	*you*(pl) *catch me*	**kenakmellaŋtək**
27.	*they send you*(du)	**nekunŋivŋətək**
28.	*you*(du) *led me*	**inelletək**

Problem 2. possessed$_a$-sfx$_a$-POSS$_b$ possessor$_b$-sfx$_b$

m

- animals: *lion, leopard, flamingo*

- objects, body parts: long/thin

-
	sg	pl
sfx	-∅	**-bii** *
POSS	**-ma**	**-itcha** *

f

- animals: *zebra, impala, elephant, baboon, giraffe*

- objects, body parts: short/thick

-
	sg	pl
sfx	**-ko**	**-bee**
POSS	**-sa**	**-eta**

* **e, o > i, u** before masculine plural endings
(blocked by an intervening **a**, e.g., **zzo̱kwana-bii**)
  -bii-itcha > -biitcha

(a)   19. **wiriko** — D. *short, thick root*

   20. **roobee** — C. *horns (e.g., of dik-diks)*

   21. **mu'a** — B. *thin twig*

   22. **zzahubii** — A. *tails (e.g., of leopards)*

(b)   23. **gariko** — *car (= short truck)*

   24. **makubii** — *tall cooking pots*

   25. **hazzakeko** — *female thief*

   26. **dongobee** — *zebras*

   27. **zzahoko** — *(short, thick) tail*

   28. **nqibii** — *leopards*

(c)   29. *the flamingo's leg* — **uphukwama gogogogo**

   30. *the zebra's* V. pseudolablab *tuber* — **shumukosa dongoko**

   31. *the male impalas' horns* — **ruubiitcha puphubii**

   32. *the female strangers' thick stick* — **mu'akoeta uhuyitibee**

   33. *the boys' tall cooking pot* — **makuitcha eratibii**

   34. *the impala's long, thin roots* — **wiribiisa pophoko**

Problem 3.

- A B-ane X $\begin{cases} \textbf{rä} & - & \text{if } \textbf{A} \text{ is a woman} \\ \textbf{yé} & - & \text{if } \textbf{A} \text{ is a man} \end{cases}$

    - **A** = **B**'s relative

    - **X** = kinship term

ŋafe	father		B	brother
ŋame	mother		D	daughter
nge	child		F	father
zath	grandfather, grandson		H	husband
zath ŋare	grandmother, granddaughter		M	mother
nane	elder sibling		S	son
ngth	younger sibling		W	wife
enat	son-in-law		Z	sister
ŋäwi	uncle (mother's brother)			

terms after sister exchange:	
bäiŋaf	MB = FZH, ZS = WBS, BS = HZS
bäiŋam	FZ = MBW, ZD = WBD, BD = HZD
yamit	**bäiŋaf** and **bäiŋam**'s child
yumad	**yamit**'s wife

(a)
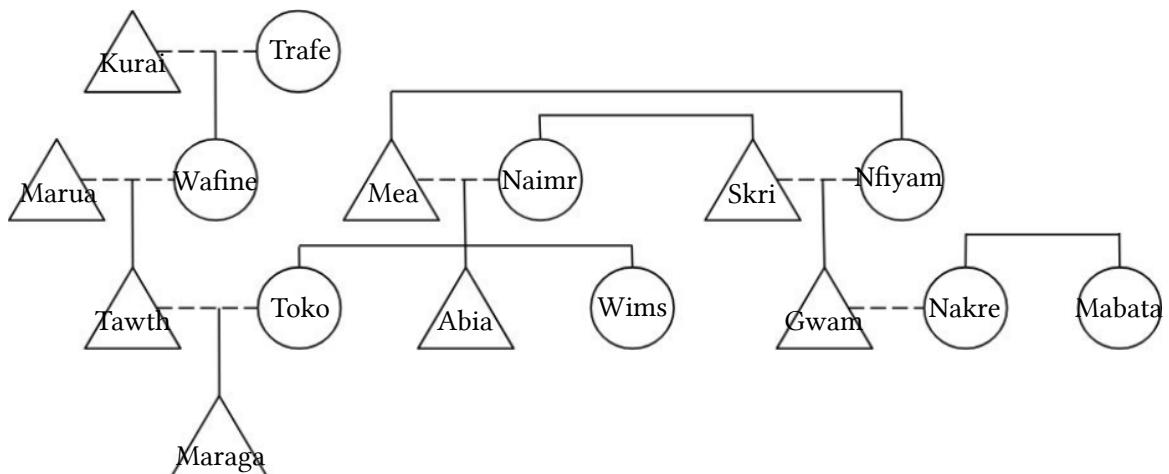
(b) 1. **bäiŋam rä**

2. **enat yé**

3. **zath ŋare rä**

4. **nge yé**

5. **Nakreane**

6. **rä**

(c) **Skri Abiaane** <u>**bäiŋaf**</u> **yé**.

Problem 4.

(a)   1. **çʉm 'aa'** (foot — receptacle): C. *flip-flops*
2. **dâw çʉʉm** (person — foot): I. *foot*
3. **dâw nõr** (person — mouth): B. *mouth*
4. **dâw nõr keet** (person — mouth — leaf/tongue): H. *tongue*
5. **dâw tôog** (person — daughter): F. *daughter*
6. **dâw sôb pis piis** ((person — hand — small) — small): D. *pinky finger*
7. **dâw tôoj** (person — nose): J. *nose*
8. **dôo' piis** (to make — small): E. *to decrease (something)*
9. **sôb dak** (hand — to put): A. *ring*
10. **suk 'aa'** (flour — receptacle): G. *can of flour*

11. **be keet** (tree — leaf/tongue): M. *leaf*
12. **be tʉm** (tree — seed/eye): Q. *seed*
13. **yak yaa'** (manioc — to roast): T. *macaxeira*
14. **yak nâax** (manioc — water): S. *tucupi*
15. **nâx pôog** (water — big): P. *main river*
16. **nâx taax** (water — tapir): L. *capybara*
17. **taax 'uuy** (tapir — domesticated): K. *domesticated tapir*
18. **tʉm tâag** (seed/eye — to know): N. *glasses (spectacles)*
19. **yon 'uuy** (anteater — domesticated): R. *domesticated anteater*
20. **yon tôoj** (anteater — nose): O. *revolver*

(b)   21. **dâw sôb piis** (person — (hand — small)): *finger*

22. **dâw sôob pis** ((person — hand) — small): *little hand*

23. **dâw çʉm piis** (person — (foot — small)): *toe*

(c)   24. *creek, stream* — **nâx piis** (water — small)

25. *little tapir* — **taax pis** (tapir) — small

26. *eye* — **dâw tʉm** (person — seed/eye)

27. *granddaughter* — **dâw tôg tôog** (person — (daughter — daughter))

Problem 5.   Word order:

- S V   (S = subject of a intransitive verb; V = verb)

- A-**lu** V P   (A = subject of a transitive verb; P = direct object)

Noun:

		noun classes:	P = S	A
		women	**rra-**	**rru-**
(♀)		men	**nya-**	**nyu-**
(♂)		men = animals	∅-	**ki-**
(♀)		animals	∅-	**ji-**
		edible things	**ma-**	
		pl	**li-**	**linji-**

Verb:

- tense (**j**- present continuous, **k**- future/past)

- (direct object)

- subject

		noun classes:	P	S	A
		women	**arr-**	**anda-**	**anda-**
(♀)		men	**any-**	**iwa-**	**ilu-**
(♂)		men = animals	∅-	**a-**	**ilu-**
(♀)		animals	∅-	**i-**	**inju-**
		edible things	∅-	∅-	∅-
		pl	**al-**	**alu-**	**alu-**

- verb root

- tense (-∅ past, -**nji** present continuous, -**la** future)

(a)   15. **mirningiya ka-wulumala** — *The man will run.*

16. **nyu-munangalu kalilu-wudurruma li-wakuku** — *The white man fed the dogs.*

17. **linji-ardulu jalu-wubanji ma-burlurlu** — *The boys/girls (children) are baking the bread.*

18. **rru-nhanawalu janda-athamanji ardu** — *The woman is chasing the boy.*

(b)   15. ♂

16. ♀

17. ⓘ

18. ♂

(c)   19. *The dog chased the girl.*

  ♀ **ji-wakukulu karrinju-athama rra-ardu**

  ♂ **ki-wakukulu karrilu-athama rra-ardu**

20. *The pregnant woman is feeding the old women.*

 ♀=♂ **rru-walkurulu jalanda-wudurrumanji li-bardibardi**

21. *The old man healed the Yanyuwa man.*

  ♀ **nyu-malbulu kanyilu-yabima nya-yanyuwa**

  ♂ **ki-malbulu kilu-yabima yanyuwa**

22. *The kangaroo will return.*

  ♀ **wunala ki-wanila**

  ♂ **wunala ka-wanila**