

Twelfth International Olympiad in Linguistics

Beijing (China), July 21–25, 2014

Individual Contest Solutions

Problem #1. Rules:1. present: *no-*

2. object =

	singular	plural
1	<i>nV-</i>	<i>lV-</i>
2	<i>kV-</i>	<i>lenV-</i>

, *V* is the vowel from the following syllable

3.

	‘strike’	‘pierce’
present, subject = 1st	<i>ho-</i>	<i>fu-</i>
otherwise	<i>ha-</i>	<i>fi-</i>

4. future, subject = $\begin{cases} \text{1st : } & \textit{lu-} \\ \text{2nd : } & \textit{la-} \end{cases}$

5. subject = dual: *-’i*

6.

	indicative	‘because ...’
subject = 1st person pl <i>or</i> 2nd person sg	<i>-ne</i>	<i>-tagihe</i>
otherwise	<i>-be</i>	<i>-nagihe</i>

Answers:

- (a) *nonifibe* you_{pl} are piercing me
halu’ibe we both will strike him
lifilatagihe because you_{sg} will pierce us
nokufune we are piercing you_{sg}
nolahanagihe because you_{pl} are striking us
- (b) *noha’ibe* you both are striking him
kifilune we will pierce you_{sg}
nolenohotagihe because we are striking you_{pl}
filanagihe because you_{pl} will pierce him

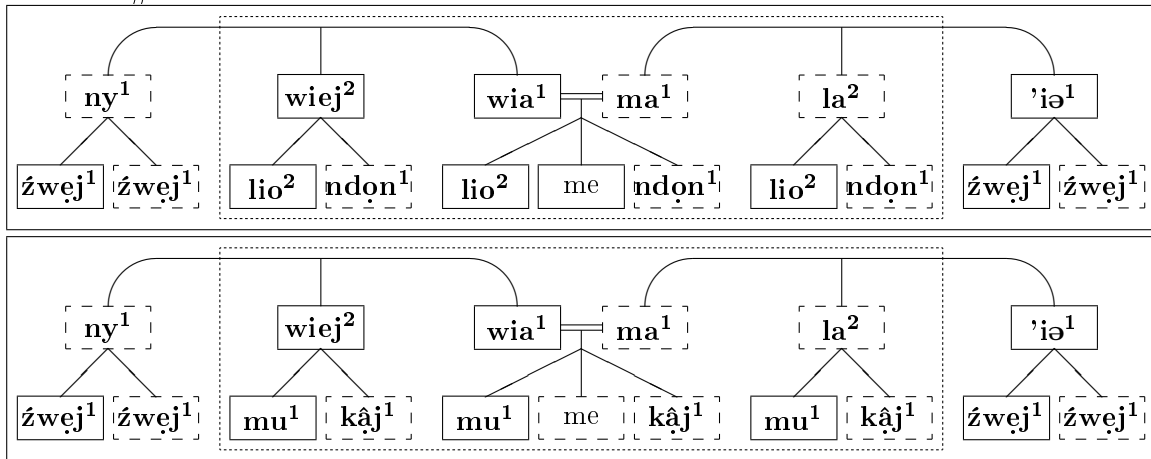
Problem #2. Rules:

	singular	dual	plural
people, animals, tools	-∅		-gɔ
	-n		-dɔ
fruit	-gɔ	-∅	-gɔ
	-dɔ	-n	-dɔ
all other things	-dɔ		-(n)

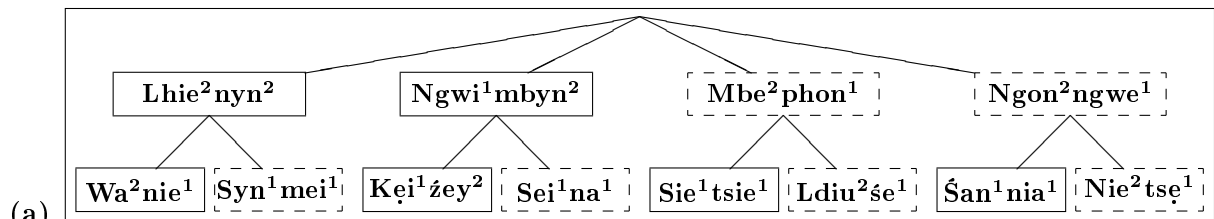
Answers:

singular	dual	plural	
alɔsɔhjeɔ	alɔsɔhje	alɔsɔhjeɔ	plum
tsegun	tsegun	tsegudɔ	dog
alɔguk'ogɔ	alɔguk'o	alɔguk'ogɔ	lemon
k'ap^ht^hɔ	k'ap ^h t ^h ɔ	k'ap ^h t ^h ɔgɔ	old man
k ^h ɔdɔ	k ^h ɔ	k^hɔ	blanket
k'ɔdɔ	k'ɔn	k'ɔdɔ	tomato
alɔgɔ	alɔ	alɔgɔ	apple
p^hɔ	p ^h ɔ	p^hɔgɔ	buffalo
san	san	sadɔ	child
ɔlsun	ɔlsun	ɔlsudɔ	comb
pitso	pitso	pitsogɔ	fork
t^hɔp^hpaadɔ	t ^h ɔp ^h paa	t^hɔp^hpaa	chair

Problem #3. Rules:



(\triangle = man, \circ = woman)



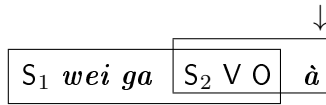
(a)

(b) Nie²tse¹ Sie¹tsie¹ 'yn¹ ndɔn¹ ngu².

Problem #4. Rules:

- Word order:

– in questions $(S = \text{subject}; V = \text{verb}; O = \text{object})$



↑
in answers

– N A D $(N = \text{noun}; A = \text{adjective}; D = \text{demonstrative adjective})$

- Choice of pronoun (S_2):

$$S_1 = S_2 \Rightarrow S_2 = \hat{o}ki; S_1 \neq S_2 \Rightarrow S_2 = o$$

- Vowel lowering: $(\mathcal{W} = \text{word with lowered vowels}; \mathcal{W} = \text{word without lowered vowels})$

$$\begin{array}{ll} \dots o \mathcal{W} \dots > \dots \hat{o} \mathcal{W} \dots & \dots \mathcal{W} \hat{a}no \dots > \dots \mathcal{W} \hat{a}no \dots \\ \dots o \mathcal{W} \dots > \dots o \mathcal{W} \dots & \dots \mathcal{W} \hat{a}no \dots > \dots \mathcal{W} \hat{a}no \dots \end{array}$$

- Tone changes: $(\mathcal{J} = \text{word boundary}; A = \text{adjective}; V \text{ is a vowel}; C \text{ is a consonant})$

– caused by adjectives: $\dots V] A > \dots \hat{V}] A$

– caused by verb forms:

- * affirmative form, past: $\dots \hat{V}] [CV(C)V\hat{C}V]_{\text{verb}}$
- * affirmative form, future: $\dots V] [C\hat{V}(C)V\hat{C}\hat{V}]_{\text{verb}}$
- * negative form:¹ $\dots \hat{V}] [CV(C)V\hat{C}V]_{\text{verb}}$

Answers:

- (a) 8. Did this man frighten the thief?
The girl said that he_{this man} did frighten the thief.
9. Will the deceived girl kill this youth?
The deceived girl said that she_{the deceived girl} would kill this youth.
10. This thief said that the child did not heal the man. *or*
This thief said that the child would not heal the man.
- (b) 11. *okàa kìnònò amodhyòmú kofilomù ànò à?*
amò wei ga ô kìnono amodhyòmú kofilomù ànò.
12. *avùrà mú nùamù ànò nwàsese edèi à?*
avùrà mú nùamù ànò wei ga òkí nwàsese edèi.
- (c) Nouns are not affected by any grammatical tone changes when placed at the very end of the sentence, before \hat{a} or before $\hat{a}nò$. Because of this, the base form for ‘thief’ is *ozyi* (7.), and the base form for ‘girl’ is *amemùrè* (2.).

¹Usually has negative past interpretation, but can denote negative future if the surrounding context requires it.

Problem #5. body part – **wí** ‘human’ = spatial preposition:

sèè	(liver)	at the center
yík	(face)	at the surface
zù	(head)	above, on

Answers:

- (a)
- | | | |
|-----------------------|-------------------------------|-------------------|
| ?áá | (to put) | to put |
| ?áá náng nú kò | (to put + foot + edge + hole) | to be dying |
| ?áá sèè | (to put + liver) | to envy |
| bú má yík | (hair + eyes) | eyelash |
| bú má zù yík | (hair + above, on + eyes) | eyebrow |
| dáng gòk | (bad + snake) | poisonous snake |
| dí fò | (good + field) | good field |
| dí sèè | (good + liver) | happiness |
| kò yík | (hole + eyes) | eye socket |
| kò zòk | (hole + nose) | nostril |
| náng wí | (foot + human) | foot |
| nú fò | (edge + field) | field edge |
| nú lébé | (edge + tongue) | tip of the tongue |
| sèè wí | (liver + human) | liver |
| yík | (face) | at the surface |
| yík wí | (face/eyes + human) | face/eyes |
| zù | (head) | above, on |
- (b)
- | | | |
|-----------------|------------------|--------------------|
| bú má zù | (hair + head) | hair (on the head) |
| kò | (hole) | hole |
| lébé gòk | (tongue + snake) | snake’s tongue |
| lébé wí | (tongue + human) | tongue |
- (c)
- | | | |
|-----------------|----------------|---------------|
| sèè | (liver) | at the center |
| zù wí | (head + human) | head |
| dáng sèè | (bad + liver) | displeasure |
| zòk wí | (nose + human) | nose |