# Slightly Linguisticsful Linguistics Problem Solving 

Adam Hesterberg

2012-11-10

Americans: compete in the NACLO, www.naclo.cs.cmu.edu, in February!

## 1 Shugnan

Given are some phrases in Shugnan, an Indo-Iranian language, and English. Complete the table.
kuzaa hats jar of water
chalak zimaadj bucket of dirt
tambal byuyun beard of a lazybones
biig dyuyunaa pot of corn
kuzaa gjev lid of a jar
beechoraa zimaadj dirt of a beggar
bucket of water
corn of a beggar
jar of a lazybones

## 2 "Swift News"

(ILO 2004) A translator at the Swift News agency, which regularly receives lots of material in English, tries to work as fast and efficiently as possible, and therefore first translates titles of articles and only then some of the articles. Because of this technique, however, some of the titles do not correspond to the contents of the translated articles and have to be reconsidered. This happened to three of the articles whose titles are given below.

1. Budget Cut Threatens Railway Modernization Project Funding.
2. Cold Winter Threatens Start of Shipping Season in Small Lakes.
3. Insanitariness in Brobdingnag Threatens Cholera Outbreak.
4. New Crisis in Blefuscu Threatens Collapse of Peace Talks.
5. Password Leak From Megasoft Threatens Mass Piracy.
6. Population Crisis in Lilliput Threatens Tax Reform.
7. Sudden Weather Change Threatens Arrival of Reinforcements to Besieged City.
8. Suspension of Talks Threatens Peace Process in Lilliput and Blefuscu.
9. Unexpected Event in Country of Houyhnhnms Threatens Early Elections.
10. Terrorists Activity Threatens Public Security.
11. Global Cooling Threatens Food Shortages.

Assignment: Indicate which titles did not correspond to the contents of the articles after translations. Give the appropriate translations. Explain your solution.

## 3 Turkish

Given are Turkish words and their English translations:
güreşçi wrestler
ikbalsiz unsuccessful
gözcü sentry, eye doctor
isimsiz nameless
ormancı forester
sonsuz endless
içkici drunkard
takatsiz lacking strength
barutu gunpowder maker
sütsüz without milk
balıkçı fisherman
parasiz cashless
mumcu candlemaker
dil language
kalip form

1. Two of the above words are formed in a slightly different way from the others because their stems are loans from another language. Identify those two words.
2. Translate the following into Turkish. Remember that i and 1 are distinct letters.
(a) milkman
(b) blind
(c) linguist
(d) mute
(e) mold maker
(f) shapeless

Note: ç is Hungarian cs, c is dzs, ş is s, and 1 (written like an i but without a dot on top) is like $u$, pronounced with the lips spread (unrounded).

## 4 Old Indic

Given are Old Indic word stems which are thought to preserve the most ancient (Indo-European) position of the stress. They are divided into a root and a suffix by a hyphen. Accents indicate stressed syllables.

1. vṛ́k-a (wolf)
2. vadh-á (deadly weapon)
3. sād-á (ensaddled)
4. puṣ-ṭí (prosperity)
5. sik-tí (effusion)
6. pī-tí (drinking)
7. gá-ti- (walk)
8. vádh-ri (castrated)
9. dhū-má (fumes)
10. dṛ́-ti (leather bag)
11. ghṛ́-ṇi (heat)
12. ghṛ-ṇá (heat)
13. $\mathrm{k}^{-}$á-ma (desire)
14. $\mathrm{p}^{-u ́ r-v a ~(f i r s t) ~}$
15. bhṛ́m-i (mobile)
16. kṛ̣-1́ (tillage)
17. stó-ma (hymn)
18. dar-má (demolisher)
19. nag-ná (naked)
20. vák-va (rolling)

Explain why it is not possible from the data above to determine the placement of the stress on the stems bhāg-a (share), pad-a (step), pat-i (lord), or us-ri (morning light).

Indicate the stress of the following stems:

1. mrdh-ra (foe)
2. phe-na (foam)
3. stu-ti (praise)
4. tan-ti (cord)
5. bhār-a (burden)
6. dū-ta (messenger)
7. svap-na (sleep)
8. bhū-mi (soil)
9. ghar-ma (heat)
10. abh-ra (cloud)
11. ghan-a (killing)
12. ghrṣ-vi (exuberant)

Note: $h$ indicates that the preceding consonant is aspirated (pronounced with a puff of air), $r$ is $r$ said as a vowel, as in "bird," macra denote vowel length, and dots under other letters indicate that the tongue is turned back when pronouncing them.

## 5 Movima, ILO 2007

The following are words of Movima, an isolated language spoken by about 1500 people in Bolivia, in two forms: the base form and the negative form:

| base form | translation | negative form |
| :--- | :--- | :--- |
| maropa | papaya | kas maroka'pa |
| joy | to go | kas joya:ya' |
| bi:law | fish | kas bika'law |
| delto:veń | butterfly | kas dela'to:veń |
| itilakwanci:ye | little boy | kas itika'lakwanci:ye |
| elan | your comb | kas elana:na' |
| lopa:vos | manioc plant | kas lopaka'vos |
| jiwa | to come | kas jiwaka:ka' |
| bakwanyiń | my wrist | kas bakwana'yiń |
| talummo | sweet banana | kas taluma'mo |
| to:mi | water | kas toka'mi |
| en | to stand | kas ena:na' |
| vuskwa | dust | kas vusa'kwa |
| wa:kato:da | meat | kas waka'kato:da |
| as | to sit |  |
| enferme:ra | nurse |  |
| jila:pa | to grate manioc |  |
| de | to lie |  |
| rulrul | jaguar | kas wurula:la' |
| tipoysu:da | dressed in tipoy | to roar |

1. Instead of standing for a sequence of two sounds, a certain combination of two letters always stands for a single specific consonant in Movima. Which combination is this?
2. Fill in the gaps.

Notes: $[\mathrm{y}]=\mathrm{j},[\mathrm{c}]=\mathrm{cs}$, [ń] and ['] are specific consonants of Movima, and a colon after a vowel indicates length. A tipoy is a long sleeveless chemise worn by Indian women. (Author: Dmitry Gerasimov)

