

# Homework 5

Dr. Nancy Hall

June 2, 2004

This optional homework consists of material similar to what is on the final exam. I encourage everyone to do it as a review. If you wish, you may turn it in by June 10 for a grade, and substitute it for a lower grade on one of homeworks 1, 2 or 3.

## Russian loanwords in Kirghiz

The following are examples of Russian words that have been borrowed into Kirghiz<sup>1</sup> and altered to fit the Kirghiz phonology. From the changes that occur, we can infer certain facts about Kirghiz syllable structure.

Russian	Kirghiz	Gloss
trupka	turupke	'pipe'
plita	pilita	'stovetop'
fleja	filija	'breach-band'
knifka	kinefke	'book'
kvas	kuibas	'kvas'
frunze	boronzo	'Frunze'
front	puuront	'front'
p'janitsa	pujanketj	'alcoholic'
tr'ufeli	turufeli	'truffles'
pnevmatika	punevmatika	'pneumatics'
mrul'ov	murulov	last name

1. Write a phonological rule for the vowel epenthesis seen in the Kirghiz words. Do not worry about the quality of the vowel, just the environment in which it is inserted. Do not describe the changes made to existing Russian vowels.
2. List the types of syllables seen in the Kirghiz words.
3. Does Kirghiz allow codas?
4. Does Kirghiz allow complex onsets?

---

<sup>1</sup>Maria Gouskova points out: "Curiously... the former Russian/Soviet name for the capital of Kirghizstan, Frunze (now Bishkek)... is unpronounceable in Kirghiz without epenthesis."

5. Show the full syllable structure of [turupke], including subsyllabic constituents.

### Icelandic Stress

Assume that adjacent vowels belong to different syllables (they are not diphthongs). In this and the following problem, accent marks represent stress, not tone.

jón	‘John’
tás.ka	‘briefcase’
hóf.ðing.jà	‘chieftain (gen. pl)’
ák.va.rèl.la	‘aquarelle’
bí.o.grà.fi.à	‘biography’

1. Does Icelandic have iambic or trochaic feet?
2. Is the direction of parsing right to left or left to right?
3. Does Icelandic allow degenerate feet?
4. Does Icelandic have extrametricality?
5. Does Icelandic have a heavy / light syllable distinction?

### Asheninca Stress

Asheninca is an Arawakan language of Peru. [ai] is a diphthong here. Suggestion: use the first five examples to construct your analysis of the basic stress system before looking at the last four.

no.pí.to	‘my canoe’
i.pí.tso.ka	‘he turned around’
no.pí.ya.ná.ka	‘I returned’
ha.má.nan.tá.ke.né.ro	‘he bought it for her’
pa.mé.na.kó.wen.tá.ke.ro	‘take care of her’
a.tí.ri.pá.jé:ni	‘people’
sá:sá:ti	‘type of partridge’
pó:ka.ná.ke.ro	‘you threw it out’
no.má.ko.r <sup>h</sup> á:wái.ta.pá:ke	‘I rested a while’

1. Does Asheninca have iambic or trochaic feet?
2. What is the direction of parsing?
3. Is there extrametricality?
4. Are degenerate feet allowed?
5. What kind(s) of syllable does Asheninca count as heavy?
6. Show the foot structure of “you threw it out”.

## Kanakuru Tone

The following data demonstrate all the tonal patterns that are possible on stems in Kanakuru. In this problem, the accent marks represent tone, not stress.

tǔi	'to eat'
bûi	'to shoot'
tùké	'to hide'
górè	'to leave'
tàkàlé	'to trick'
bómbólò	'to scrape'

1. Where is it possible to have contour tones in Kanakuru? Where is it possible to have sequences of repeated tones?
2. What are the underlying tonal patterns in Kanakuru? (Posit as few as possible: only as many as necessary to derive the patterns above.)
3. Are tones associated with syllables in a left-to-right or right-to-left order?
4. Show autosegmental representations of *bómbólò* and *bûi*.

## Tibetan numerals

Hint: if you have difficulty identifying underlying forms, try changing your hypothesis about where the morpheme boundaries lie.

dʒu	'ten'		
dʒig	'one'	dʒugdʒig	'eleven'
ʃi	'four'	dʒubʃi	'fourteen'
		ʃibdʒu	'forty'
ŋa	'five'	dʒuŋa	'fifteen'
		ŋabdʒu	'fifty'
gu	'nine'	dʒurgu	'nineteen'
		gubdʒu	'ninety'

1. Give the underlying forms of the morphemes meaning: ten, one, four, nine, five.
2. What is the order of morphemes in the Tibetan numeral? (Note that it is different in the teens and tens.)
3. Assume that intervocalic CC is syllabified C.C. Does Tibetan allow codas? Does Tibetan allow complex onsets?
4. Write a phonological rule, in formal rule notation, to describe the changes that occur. Only one rule is necessary.