Linguistics 201 – Spring 2007, Section H
March 2

Homework Assignment IV
Due: Wednesday, March 7 (beginning of class)

1. *Vowel Epenthesis in Japanese Loanwords*

When Japanese borrow words from European languages, a lot of interesting things happen. One of them is vowel epenthesis: Japanese people add a lot of vowels that the original languages do not possess. Here are some examples for words borrowed from English, which illustrate part of the process (a relatively broad transcription is used):

bazu	'buzz'	wurumuburando	'Wurmbrand' (a linguist's name)
supuraito	'sprite'	taitoru	'title'
kurisumasu	'Christmas'	furoo	'flow'
sutoraiku	'strike'	sutairu	'style'
bariasu	'various'	dezaato	'dissert'
furaggu	'flag'	rippu	'lip'
kappu	'cup'	sutoroŋgu	'strong'
sutorendʒaa	'stranger'	tiimu	'team'
sukurooru	'scroll'	kureditto	'credit'
torendo	'trend'	puraido	'pride'
suraido	'slide'	surotto	'slot'
towairaito	'twilight'	bakansu	'vacancy'
burendo	'blend'	burando	'brand'
guroorii	'glory'	suroorii	'slowly'
doreddo	'dread'	gureepu	'grape'
bureddo	'bread'	sureddo	'thread'
bureiku	'break'	hurendo	'friend'
toraburu	'trouble'	terabуru	'terrible'
raihuru	'rifle'	vauru	'vowel'
purasu	'plus'	pondo	'pond'
kiddonappu	'kidnap'	booizu	'boys'
buraindo	'blind'	disshu	'dish'

a. Where do epenthetic vowels occur? Look at the original pronunciations in English, and describe which condition in the English word triggers vowel epenthesis in the corresponding Japanese pronunciation.

b. What would you speculate about the differences in syllable structure between English and Japanese based on these data?

c. Which epenthetic vowels are used? Is it predictable from the environment when speakers will use which vowel, and if so how?

2. *English coda phonotactics*

Try to find all of the two-sound sequences that can make up an English coda where one of the sounds is [p], [b], [t], [d], [k] or [g]. For this exercise, restrict your attention to just the stops and fricatives of English. (Ignore the affricates, and also ignore a glottal stop.)

In other words, determine which fricatives or stops can follow or precede [p] and make a legitimate coda. And then do the same thing for [b], and so on. Illustrate each finding with an English word (one-syllable if you can think of one). So, for example, the word *cusp* illustrates that the sequence [sp] is a legitimate coda.

(#3 on the back)

3. *German fricatives*

German has two fricatives that English does not have:
[ç] a voiceless palatal fricative, and
[x] a voiced uvular fricative

These two sounds are not in contrast in German, but in complimentary distribution. That is one occurs in one environment, and the other in other ones.

Examine the words below, and find out what it is that determines whether you choose [ç] or [x]

[axt]	'eight'	[iç]	'I'
[bu:x]	'book'	[ɛçt]	'real'
[ho:x]	'high'	[ʀaɪçən]	'reach'
[ʀaʊxən]	'smoke'	[lɪçt]	'light'
[ʃaxt]	'shaft'	[by:çɐ]	'books'
[laxən]	'laugh'	[lœçɐ]	'holes'
.[lɔx]	'hole'	[ʃɪçt]	'shift'

a. First look at the two blocks of data above and try to figure out what determines the choice between [ç] and [x].

[mɪlç]	'milk'	[çemi:]	'chemistry'
[manç]	'many a'	[çi:lə]	'Chile'
[dɔlç]	'dagger'		

b. Now look at these additional data above. Can you account for them as well? Modify your rule so that you can. (Hint: What did was the crucial element for the decision above? What if you don't have that element? Maybe there is a default?)

Here's a chart of the IPA symbols that represent consonants and vowels that occur in German.

Notes:

1. For your solution, you might have to make a choice about how to treat the vowel [a] in German – it's ok to call it a back vowel here

2. If two dots follow a vowel in the IPA transcription, they indicate that the vowel is long – you can ignore the difference between long and short vowels for this exercise.

Consonants

	Bilabial	Labio-dental	Dental	Alveolar	Post-alveolar	Palatal	Velar	Uvular	Glottal
Plosive	p b			t d			k g		ʔ
Nasal	m			n			ŋ		
Fricative		f v		s z	ʃ ʒ	ç		χ ʁ	h
Approximant						j			
Lateral Approximant				l					

Vowels