

**Homework 1.** Due Wednesday, July 11 at the beginning of class (hard copy)

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**Part 1.** Pick any sentence from today's class handout that contains at least 5 words, and transcribe it on a separate piece of paper using the IPA. Bring your transcription to class on Wednesday. (At the beginning of class you'll write it on the board and the rest of the class will convert it back to English orthography.)

For the rest of the assignment you can use a separate piece of paper or write directly on your printout.

**Part II.** Answer all the questions on p. 9 of the handout from today's class (repeated below).

Phonological rules, like other rules of the descriptive grammar, are unconscious – English-speaking children aren't explicitly instructed to aspirate voiceless stops at the beginning of stressed syllables; they just automatically learn to do it. We learn phonological rules so thoroughly that we sometimes can't 'turn them off' when we try to learn languages as adults. **What happens when English speakers fail to turn off aspiration and diphthongization while speaking Spanish?**

**Exercise:** Consider the distribution of the front lax non-low vowels **ɛ** and **ɪ** for a speaker from Texas:

Spelling	IPA	Spelling	IPA	Spelling	IPA
let	lɛt	stem	stɪm	spill	spɪl
Len	lɪn	lit	lɪt	hem	hɪm
Lynn	lɪn	string	strɪŋ	hymn	hɪm
met	mɛt	went	wɪnt	strength	strɪŋθ
west	wɛst	spell	spɛl	deaf	dɛf
friend	frɪnd	red	rɛd	peg	pɛg

1. Are **ɛ** and **ɪ** in complementary distribution or overlapping distribution in this dialect? Give examples that support your answer:
2. Based on your answer to the previous question, would you say that **ɛ** and **ɪ** are two distinct phonemes in this dialect of English? Why/why not?
3. There is one context where the distribution of **ɛ** and **ɪ** is predictable and complementary. More specifically, there is a context where we *never* find **ɛ**, or where **ɛ** and **ɪ** have **merged**, meaning the distinction between them has been lost. What is this context? How would you state the relevant phonological rule?
4. The phenomenon seen here is known as the **pin-pen merger** and is a feature of African American Vernacular English (AAVE) as well as many regional dialects spoken in the southern, midland, and western U.S. Last time in class we talked about another merger, which is found in the western U.S., Canada, and Boston and northeastern New England. What vowels are involved in this merger? Is it context-sensitive or context-free?

**Part III.** As you know, the lax vowel /æ/ is raised and develops a schwa inglide (→ [eə, ɪə, iə]) in a number of American English dialects. We'll describe this phenomenon as 'æ/ tensing.'

The phonological contexts where /æ/-tensing occurs vary from dialect to dialect. Some dialects have no tensing; some have across-the-board tensing (e.g. 'Northern Cities' surrounding the Great Lakes – Chicago, Detroit, Cleveland, Buffalo...); others have variable tensing, which depends at least in part on the phonological context of the /æ/.

In one very common pattern – sometimes called the **nasal system** – /æ/ is tensed any time it precedes a front (alveolar or labial) nasal consonant. It doesn't matter if the /æ/ vowel occurs in an **open** syllable (*grammar, manner*) or a **closed** syllable (*man, ran, sandwich, spam*) (see p. 10 of the handout for definition of open/closed syllable) – as long as the following consonant is /m/ or /n/, tensing occurs. Lax /æ/ is found in all other contexts (*cat, last, path, dad, badge, etc*).

In the **Philadelphia** dialect, the /æ/-tensing system is much more complex (Labov 1981, Payne 1980).

**/æ/ is tense** in the following contexts:

- before front nasals in closed syllables  
**exception:** no /æ/-tensing in function words (*am, can*) or irregular past-tense forms (*ran, began*)
- before front voiceless fricatives in closed syllables
- in three 'affective' adjectives: *mad, bad, glad* (but not *dad, ad*)

**/æ/ is variable** – sometimes tense and sometimes lax, with variation both within and across speakers – in the following contexts:

- before /l/ (*pal, alley, gallery*)
- before a nasal or voiceless fricative in an open syllable (*graphic, hammer, spamming*)

**/æ/ is lax** in all other contexts (before voiceless stops, voiced fricatives, back nasals, etc).

1. Based on these generalizations, indicate for each word below whether you would expect the underlined vowel to be pronounced as **T**ense, **L**ax, or **V**ariable /æ/ in each of the two dialects (nasal-system and Philadelphia).

	<b>nasal</b>	<b>Phila.</b>		<b>nasal</b>	<b>Phila.</b>
1. <u>l</u> augh	_____	_____	8. p <u>a</u> cker	_____	_____
2. <u>l</u> aughing	_____	_____	9. b <u>a</u> thmat	_____	_____
3. f <u>a</u> ntastic	_____	_____	10. bath <u>m</u> at	_____	_____
4. fan <u>a</u> stic	_____	_____	11. <u>h</u> ammer	_____	_____
5. <u>c</u> an 'I can see'	_____	_____	12. ban <u>a</u> na	_____	_____
6. <u>c</u> an eg. 'tin can'	_____	_____	13. <u>h</u> as	_____	_____
7. <u>c</u> ash	_____	_____	14. <u>g</u> rab	_____	_____

2. For dialects with the nasal system, would you say that tense and lax /æ/ are different phonemes, or allophones of the same phoneme? Why?
3. It isn't clear whether tense and lax /æ/ are different phonemes or allophones of the same phoneme for speakers of Philadelphia English. Why?

**Part IV.** Compared to most other languages, **Hawaiian** has very few consonant phonemes – only 8.

<b>Consonants</b>	<b>Labial</b>	<b>Alveolar</b>	<b>Velar</b>	<b>Glottal</b>
<b>Stop</b>	p		k	ʔ
<b>Fricative</b>				h
<b>Nasal</b>	m	n		
<b>Lateral</b>		l		
<b>Approximant</b>	w			

When two languages come into contact, they often adopt words from each other; such words are called **loanwords** (although, as Aitchison points out, the borrowing metaphor isn't really appropriate here because linguistic borrowing is usually permanent). Relatively recent borrowings into English include *spaghetti, fajitas, sushi, garage, rottweiler, bazaar, Michigan, ginseng...*) In all of these cases, the usual (unpretentious!) English pronunciation is different from the pronunciation in the source language in at least some respects. This is because part of the borrowing process involves **altering the word to fit the phonology of the borrowing language**.

Now consider the following loanwords from English into Hawaiian. Answer questions 1-4 below.

<b>Source (English) word</b>	<b>Hawaiian word</b>
diamond	kaimana
ticket	kikiki
diphtheria	kipikelia
soap	kopa
brush	palaki
zodiac	kokiaka
pitcher	pika
croquet	koloke
Gilbert	Kilipaki
Peter	pika
king	kini

1. Which consonants are the same in the Hawaiian loanwords as in their English source words?
2. What English consonants does the Hawaiian /k/ correspond to?
3. What other consonant substitutions do you see in the data? Are the consonants substituted randomly, or is there a reason why one particular Hawaiian consonant is chosen? (try to explain this in terms of place/manner of articulation)
4. Many of the Hawaiian words have 'extra' vowels; what do you think these vowels might be doing? (see p. 10 of your class handout for a hint)