Workbook for "Mismatching systems: L2 and loanword phonology"

Methods questions

1. In the *oddball paradigm*, listeners are played a sequence of items, e.g. **[da].. [da].. [ba].. [da]**. In active tasks, listeners are asked to press a button indicating which one was different (e.g. press '3' above). Is this a discrimination or an identification task?

2. Kazanina, Phillips, & Idsardi (2007) conducted a passive ERP oddball test with native Russian and Korean listeners, using voiceless stops as the standard and prevoiced stops as the oddballs (**[ta].. [ta].. [da].. [ta].. [ta].. [ta].. [ta].. [ta].. [da].. [ta]..**). Russian speakers reliably exhibited an N400 on the presentation of prevoiced stops -- a negative pole response associated with violation of expectations in other language tasks, e.g. incorrect subcategorization frame. Koreans did not exhibit a reliable N400 on the presentation of prevoiced stops. What interpretation would you assign to this result?

3. In Russian, prevoiced stops lexically contrast with voiceless stops. However in Korean, underlyingly voiceless *lenis* stops are allophonically voiced when they occur after a sonorant and before a vowel. Are the oddball items phonotactically licit in Korean? That is, is voicing positionally licensed in **[da]**?

4. Synthesize the answers to 2 and 3. What do they suggest about the relationship between native language phonology and speech perception?

Non-native phonetic categorization

1. What is similar between PAM and the SLM?

2. What are important differences between PAM and the SLM?

3. When you look at Hillenbrand et al.'s Fig. 3 (the vowel chart), are you optimistic that first-language segmental acquisition (specifically, the phonology-phonetics mapping) can be accomplished using a constraint-based framework, as Boersma has suggested? Why or why not?

ROTB, FOA, and LO

Consider obstruent voicing following datasets. Assume that all licit, distinct types are listed. According to LO, what URs would speakers entertain for novel [lat] in each language? And [lade]?

Language 1			Language 2		Language 3		
[pan]	[nape]	[nap]	[pan]	[nap]	[pan]	[nape]	[nap]
[tan]	[nate]	[nat]	[tan]	[nat]	[tan]	[nate]	[nat]
[kan]	[nake]	[nak]	[kan]	[nak]	[kan]	[nake]	[nak]
[ban]	[nabe]	[nambe]		[nabe] [nambe]		[nabe]	[nambe]
[dan]	[nade]	[nande]		[nade] [nande]		[nade]	[nande]
[gan]	[nage]	[naŋge]		[nage] [naŋge]		[nage]	[naŋge]

TETU

Phonetic studies show that English unstressed vowels (besides /u/) tend to have a higher F2 and a lower F1 when they occur between coronals. Let us pretend that this is phonologized as follows: [+syl,-high.-stress] --> [+high,+front] / [+cor]__[+cor]. Can you get this to occur in OT? If so, how, and is a TETU effect? If not, why not?

L2 phonology
1. Broselow, Chen, & Wang (1998) found that forms like *vilig* were sometimes repaired by final vowel epenthesis, but sometimes by vowel deletion, suggesting that DEP-V and MAX-C have roughly equivalent priorities in these speakers' L2 grammars. Now inspect the violation profile of these two candidates *vis a vis* WdBin and MinPrWd. Why do you think *viligɤ* is sometimes chosen over *vili*?
2. The most replicated effect in Spanish prothesis is the preceding environment. Between the two following sentences, which environment do you imagine would give rise to more epenthesis? Why?
   - *Miguel said to <u>stop</u>.*
   - *Miguel made it <u>stop</u>.*

Loanword phonology
1. English has words like, *salt* and *malt*, *amp* and *rant*, *act* and *apt*, containing a final consonant cluster of some sort. What are the natural options for repairing these items in languages allowing no obstruent codas? What about languages only allowing singleton obstruents in coda? Do you think any of these repairs are cross-linguistically repaired?
2. In French, accent is assigned at the level of the Phonological Phrase or something similar. What do LO, ROTB, FOA, and TETU have to say about the representation of stress in French URs?
3. How do you predict French speakers to represent English stress in loanwords?
4. Let us assume that Cantonese does not have any metrical stress, so it is a pure tonal language (with H, M, and L level tones). Let us also imagine we can abstract away from confounds with the Cantonese writing system, and isolate relatively phonological adaptation. Do you expect variability or categoriality in the mapping from English stressed syllables to Cantonese tones? Why?

FIN