L541: Spring, 2012

Term Project: Tips and Ideas for Project Topics

Additional tips for setting up and running a phonetics experiment.

Illustrative suggestions of topics: Following are examples of topics. Um, the exact topics listed below are actually ones which have been done quite a bit, but extending them to other languages is likely to be novel.

1. Effect of phonemic voicing on vowel duration and obstruent duration in German (or English or...). This is generally and interesting topic, and is especially interesting in German where there is phonemic merger of the voiced and voiceless stops. Another angle on durational studies is to vary speech rate, stress, or focus to see how it affects the contrasts you are investigating.

- pick 3 or 4 minimal pairs; get 4 repetitions from three speakers for a total of 60 tokens. Measure the stop, fricative and vowel durations.

2. Effect of high-vowel devoicing on timing in Japanese.

- pick 2 minimal pairs like /kakusi/ and /kakesi/, get 5 repetitions from three speakers. Then have them focus on the relevant word. Measure the durations of the various parts of the words and when and where devoicing happens and whether is it affected by speaker attention.

3. What is the relevant dimension of contrast corresponding to [ATR] in Twi?

- pick 2 or three minimal pairs for 3 of the five vowels, get 5 repetitions from two or three speakers. Measure the formant values and durations in the various vowels.

4. Effect of speech rate or prosodic position on diphthongization of American vowels.

- pick a subset of vowels, perhaps tense/lax pairs, which may or may not diphthongize. Put them in various prosodic positions and compare formant values from the first half and last half of the vowel, as well as rate of change.

<u>More complicated designs (careful to make them simple):</u>

5. Compare pharyngealized and unpharyngealized vowels in Arabic in two conditions; one condition in which pharyngealization is clear, and one in which you're not sure. What makes this complicated is the number of linguistic conditions which could be compared. Back in the 1980's there was a cottage industry in formulating rules for feature spreading, such as is involved in this case.

6. Compare affricates and fricatives in language X. The relevant measure here would be how quickly the frication turns on. What makes this more complicated is you need to come up with a measure which is not typical in phonetic studies.

<u>Other directions for thought:</u>

7. Do a description of some aspect of an undocumented language; for example, plot out the vowel space.

8. Find out if the fricatives in Korean are really the same as those in English. Use a small number of tokens and measure fricative quality, and/or make palatograms of one or two speakers.

9. Documenting foreign accent. Any topic – probably has not been done.