

Lab 1: English consonants

The lab is due next Wednesday, Sept. 30.

Part I.

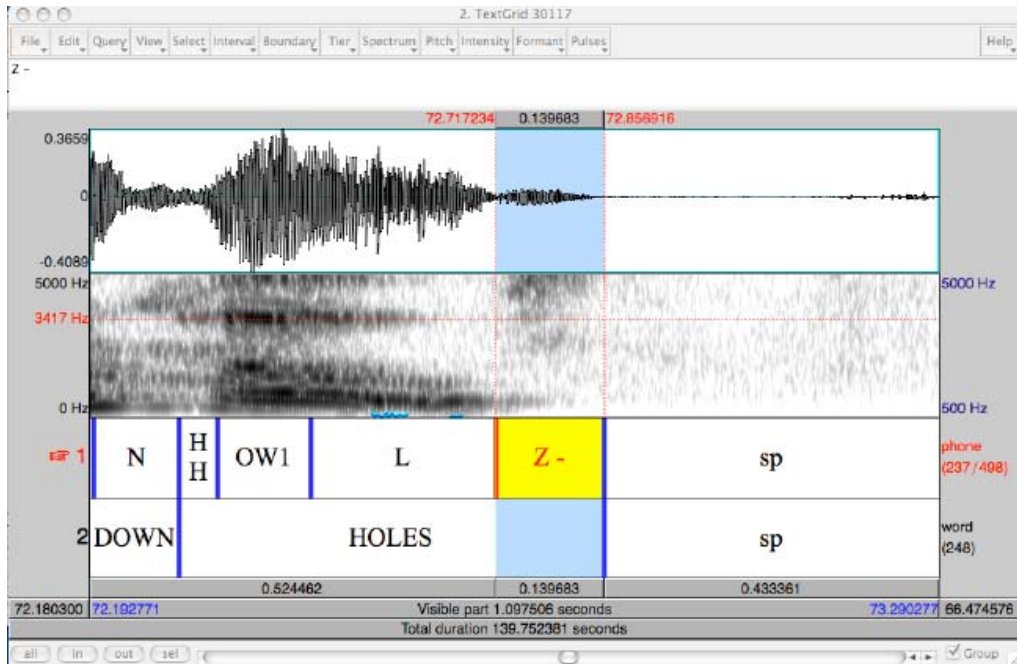
The textbook lists 19 rules for English consonant allophones. Find examples of at least eight rules from the speech paragraph at:

<http://www.ling.upenn.edu/courses/ling520/lab1/f2bjrlp1.wav>.

List your examples and state the rules that apply to them.

Part II.

1. Read *The Eye Book* (by Theo. Lesieg) and record it using Praat.
2. Upload the text and your speech to the PPL forced aligner: <http://wms-609.sas.upenn.edu/alignment>, download the Praat TextGrid sent to you from the aligner.
3. Open Praat, read in your speech file and the TextGrid file (click on “Read” on the top of the Praat object window, and then select “Read from file...”), select both files in the Praat object window, edit (click on “Edit” on the right side of the Praat object window).
4. Find all /s/ and /z/ phonemes in the speech, listen carefully to the phonemes and their surrounding words. Classify the phonemes into two categories: voiceless and voiced (note: use your ears only not the spectrograms). Mark the voiced category with a “+” and the voiceless category with a “-” in the TextGrid, as shown below:



- Calculate the percentages of voiceless and voiced /s/ and /z/ in your speech. Is the result consistent with rule #3 in the textbook? Briefly discuss the voicing variation of /s/ and /z/ in your speech. For example, is there a difference on voicing between your phrase final and non-phrase final /z/? What's the voicing pattern of your /z + s/ sequences? etc.