

Hall & Wong  
Winter 2006  
Ling 500

**Final project, part (a): Measuring English voice onset time (VOT)**

English is said to have a voicing contrast for the two series of stops /b, d, g/ and /p, t, k/, where the first set is voiced and the second is voiceless. This part of the final project will involve designing a small corpus to investigate the above claim by looking at the English stop sounds /b, d, g, p, t, k/. What you need to do is as follows.

1. Design a small corpus that contains a few words that allow you to measure the VOT of the above stop sounds. It is up to you to decide how many words you want in the corpus, and what vowel(s) you want each stop sound to precede, but you should include words that match each of the contexts below:
  - a. the stops are in word-initial position
  - b. the stops /p, t, k/ are part of a word-initial consonant cluster following [s]
  - c. the stops are in word-medial position and the stops are part of a stressed syllable
  - d. when the stops are in word-medial position and the stops are part of an unstressed syllable

Write down the words in your corpus.

2. Record your own production of the words in the corpus in .wav format.
3. Measure the VOT of each of these stop sounds. Write down the measurements.
4. What observations did you make? Is there any pattern about the VOT of the stops that you can see? How would you categorize the stop sounds you examined? Is the claim that [b, d, g] are voiced while [p, t, k] are voiceless accurate?

*To turn in: #1 through #4.*

*Due date: 2006-3-13 before 5:00pm (although you're welcome to turn in your report before the due date, and in fact encouraged to turn it in by Friday, March 3<sup>rd</sup>, as if it were HW 5.)*