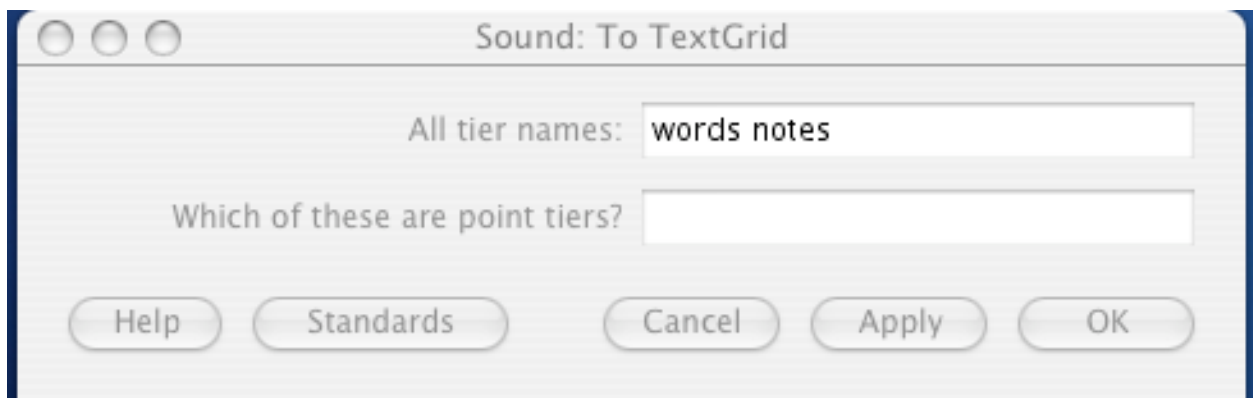


### Lab 1: Using Praat – Drawing Pictures and Sound Editing

In this lab, you will familiarize yourself with some of the aspects of working with Praat, and learn some interesting things about phonetics and speech sounds.

1. Download the sound file “gipper.wav” from the class website under “Module 1 – Lab 1.” <http://www.ling.osu.edu/~pwong/ling500>
2. Open the sound file in Praat. When you play it, it should say “The Gipper wants a spear.”
3. Edit the sound file. Cut the [s] from in front of the last word in the file and paste it in front of the second word. You may have to play around with the file for a bit to figure out where the [s] is and to make the transitions seem natural. Note that “cut and paste” in Praat works just the same as it does elsewhere: simply highlight the part you want to cut, press ctrl-X or choose “cut” from the edit menu, put the cursor where you want the cut part to appear, and press ctrl-V or “paste” from the edit menu.
4. What does the new sound file say?
5. What are the similarities of the two pairs of sounds [k] and [g], and [p] and [b], that allow the first sound file to be changed into the second one? (We’re looking for articulatory characteristics.)
5. Create a TextGrid to go along with the sound file. Label each word in the sentence. Create the TextGrid in the Objects window by going to the “Annotate” button and choosing “To TextGrid...” Enter “words” and “notes” as the tier names, as in the following picture. This will create two “tiers” in your TextGrid for labelling intervals; the top one is labelled “words” and the second one is labelled “notes.” These are both interval tiers, used to label entire sections of the sound file, as opposed to point tiers, which are used to label individual points.



To label the words, click on both the sound file and the TextGrid in the Objects window (you have to press ctrl while clicking to highlight both at the same time). Then press “Edit.”

Find the word boundaries in the sound file by playing around with the cursor and the “play” buttons, and of course by using whatever knowledge you have or can figure out about reading the spectrogram. At each word boundary, place a marker in the TextGrid by clicking on the spectrogram, then clicking inside the little circle that appears on the cursor in the “words” tier. Between the boundaries, you can label each word simply by clicking anywhere in the word tier in that word and typing the word.

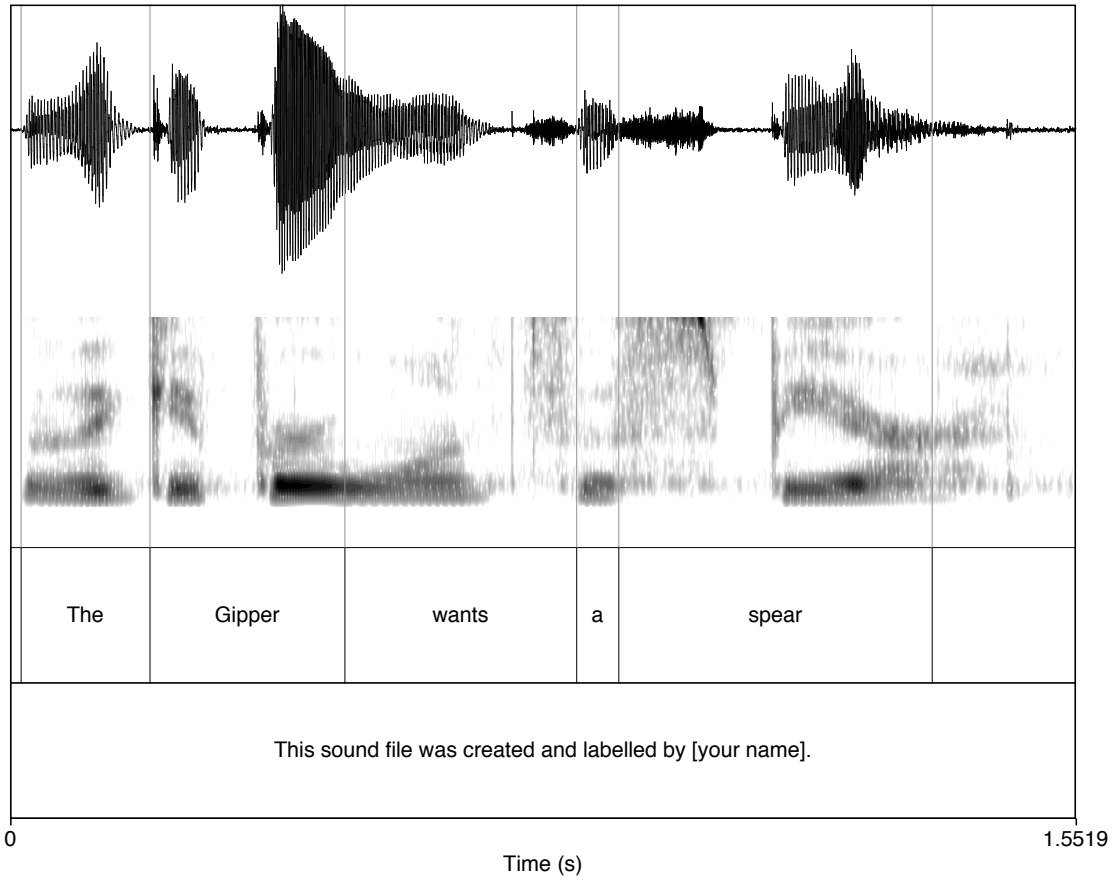
6. Create a spectrogram of the new sound file by choosing “Spectrum” and then “To Spectrogram” in the Objects window, while making sure that only the sound file is highlighted. Accept the default settings.

7. Use the draw and paint functions in Praat to create a picture of the edited soundfile’s waveform, spectrogram, and TextGrid in the Picture window. The picture on the next page is what this would look like for the original sound file. You will have to first draw the waveform (the sound file itself), then the spectrogram that you just created, and finally the TextGrid object.

Remember to write your objects to files if you want to save them (write the new sound file to a .wav file, the TextGrid to a .txt file, and the spectrogram to a .txt file). You can save the picture as Windows Metafile or copy it to the clipboard and paste it into a Word document, etc. Of course, to make sure you have these files after class (e.g. so that you can print them out!), you will need to save them to a disk or e-mail them to yourself.

To turn in on Wednesday:

Answers to questions 4 and 5; the picture created in part 7.



**Figure 1: Sample of waveform, spectrogram, and TextGrid for original sound file.**