

# **Categorical Perception Homework: Research Report**

## **Homework designed by Toby Mintz, USC**

*modified in irrelevant ways here by D. Byrd for USC Ling 580*

You will carry out a series of categorical perception experiments, collecting the data on-line

For your homework assignment, you will then write a 3-5 page research report. The structure of this report will be loosely based on the structure of a typical scientific research paper in psycholinguistics. Although you did not design these experiments, when writing this assignment, try to write it as though you had a specific hypothesis you were testing regarding the perception of speech along an acoustic continuum.

The report will contain four sections, outlined below.

### **Section 1: Introduction**

Identify the issues that the two experiments are designed to explore (e.g., The first experiment is designed to examine how speakers perceive a series of continuously varying speech segments. The question is whether listeners hear all 20 steps on the continuum as distinct sounds, or whether they classify them into speech categories...). This section should explain why data from the two experiments (as opposed to just one) are important.

### **Section 2: Methods**

Describe the method you used to investigate the issues you discuss in the Introduction. This section should provide the reader with the following information:

- What did the subject (you) do in each experiment?
- What were the important properties of the stimuli you listened to?
- How many times did you listen to the stimuli?
- What was the response measure?
- What equipment did you use?
- What was the independent variable?
- What is the predicted outcome?

You can have a different sub-section for each experiment.

### **Section 3: Results**

Present the data you collected in the two graphs and describe what is displayed in each graph (that is, what the graphs represent and what they mean). Make generalizations when you can: For example, you might say, "My responses to stimuli 1-5 were 100% 'ba'," rather than "My responses to stimulus 1 was 0% 'ga', 0% 'da', and 100% 'ba'. My responses to stimulus 2 were ... "

### **Section 4: Discussion**

This is where you remind the reader of the purpose of the experiments, and you explain your findings. What did the two experiments demonstrate? How do they address the questions asked in the Introduction? In addition, discuss any limitations or drawbacks you see in the experiments (e.g., sources of measurement error) and how these might affect your results and conclusions.