

PSY 628: Perceptual Processes

Homework 1: Fitting a psychometric function

Due: Tuesday, 03 September at 5 pm

1. At the CogLab site, complete the Muller-Lyer lab. If you previously completed the lab, you can just download your trial-by-trial data. With your trial-by-trial data, fit a psychometric function that relates proportion judgments of the plain line as longer against the length of the plain line. You can modify the code described in class (source code is on the class website). Identify the 50% threshold for your data.
2. On the class web page the homework assignment includes a link to an experiment you can run on your computer that uses the Method of Adjustment for the Muller-Lyer illusion. Download and uncompress the zip file and then open the file MethodAdjustmentML.html in a web browser. Run the experiment and note the mean and standard deviation.
3. Compare the mean and standard deviation found from the method of adjustment to the characteristics of the psychometric function you found in step 1. Does the mean match the 50% threshold?
4. Compare and contrast the method of constant stimuli (as on CogLab) with the method of adjustment for investigating the Muller-Lyer illusion.

Send your completed homework to Dr. Francis at gfrancis@purdue.edu