

Goals for today:

Last week we collected data for our third lab (a mental rotation experiment). Today we will begin the analysis of this data. Working in groups, and using your notes from lab 2, try to do the following analysis steps. As a starting point the data is organized into 6 columns: subject #, trial #, angle, stimulus (same/mirror), response (same/mirror), RT (in msecs). In the stimulus and angle column, 1=same, 2=mirror.

- 1. Read your data file into R**
- 2. Rename the columns appropriately (hint: columns are subject, trial, angle, stimulus, response, RT)**
- 3. Compute the overall accuracy for each participant, and the mean overall accuracy in the task**
- 4. Build a histogram of the overall RT distribution and use this to set a threshold for outlier RTs**
- 5. Drop the outliers and save that to a new data structure (called cleandata)**
- 6. Make a new “basket” (i.e., sub-selection) that includes only the trials where the stimulus was “same” and only those that were “mirror”**
- 7. From each of these, drop incorrect trials (where the subject’s responses didn’t match the actual stimulus)**
- 8. (more involved) Make a bar chart showing mean-of-median RT as a function of angle (looking at only correct trials) for both the same and the mirror conditions.**