Cognition Lab

Lab 9
Data Analysis

For this assignment you will need to analyze the data you collected and present it in a table (or more than one table, depending on the experiment) or graphs. No need to do a formal write-up of the results as now - we will do it next week.
Some of you need to ask participants for the results obtained from the original experiment, run earlier in the semester. Please go ahead and do so. If a classmate is asking you the data, please send all the files from the previous experiment.

All the analysis we have done in the semester are *within subjects*. You should repeat the analysis we did in class *for each participant*. When appropriate, compare the participant's results to the results obtained earlier in the semester.

If your data contains reaction times, and if you are interested in the difference in reaction times between different conditions, it's a good idea to run a t-test to see if this difference is a significant or not. There may be two types of situations you need a t-test for: (a) t-test within two conditions in last Friday's experiment and (b) t-test comparing last Friday's experiment with the experiment previously run in class.

EXAMPLE

One student ran a stroop test with letters instead of words (I will call it letter-stroop.)

- First, he will run a (1) t-test to see if there is a significant difference in reaction times (RTs) between the congruent cases and incongruent cases in the letter-stroop.

Then, he will compare the new results with those obtained in the original stroop. To do so, he will need to run <u>two more t-tests for each participant</u>:

- A t-test (2) between the RTs of the letter-stroop in the *congruent* case and the RTs of the original stroop in the *congruent* case
- A t-test (3)s between the RTs of letter-stroop in the *incongruent* case and the RTs of the original stroop in the *incongruent* case.

In conclusion, in this case there are two questions we are trying to answer: will the letter-stroop study show a significant effect? And will the results of the letter-stroop be significantly different from the results obtained in the original-stroop?

Please submit your result as a table/tables and/or graphs in a word document as FirstnameLastname_CogLab_Lab8_data_analysis.