PSYC 7014, Week 9 stats lab: ANOVA

Perform an omnibus ANOVA.

Experimental Question: Does praise influence performance?

Anecdotal evidence often suggests that a persons performance in a given task is influenced by the type of feedback that they receive. For example, a person that consistently receives positive feedback may in turn perform better than one that consistently receives critical feedback. To test this empirically, a group of participants completed a simple throwing task (attempted to throw get a ball into a small hole) under three between subjects conditions of feedback (judgment): (1) Praised as being above average when got the ball close or in the hole; (2) Criticized as being below average when missed or got it close to the hole; (3) no feedback/judgment was provided. Experimenters tallied the **number of misses out of 12 total throws** for each participant, i.e. higher values indicate poorer performance.

Using R, perform an ANOVA to test the hypothesis that feedback results in changes in performance. In your analysis be sure to:

1. *check the assumptions for ANOVA*
2. *create a means plot of your data (APA figure)*
3. *report your analysis, including effect size*
4. *highlighting any trends that may be present in your data*

BE CAREFUL NOT TO OVER INTERPRET THE RESULTS OF THE OMNIBUS ANOVA!!

for **EXTRA CREDIT,** using the `lm()` method, can you make any claims about differences between about either of the feedback conditions relative to the no-feedback control?