

# Simulation Results

Shiny App developed by Daniël Lakens and Aaron Caldwell

*May 17, 2019*

Below are the results from the ANOVA simulation app. If you encounter any problems please visit our GitHub page ([https://github.com/Lakens/ANOVA\\_power\\_simulation](https://github.com/Lakens/ANOVA_power_simulation)) to raise the issue.

## Study Design

3w

## Model Formula

$y \sim \text{CONDITION} + \text{Error}(\text{subject}/\text{CONDITION})$

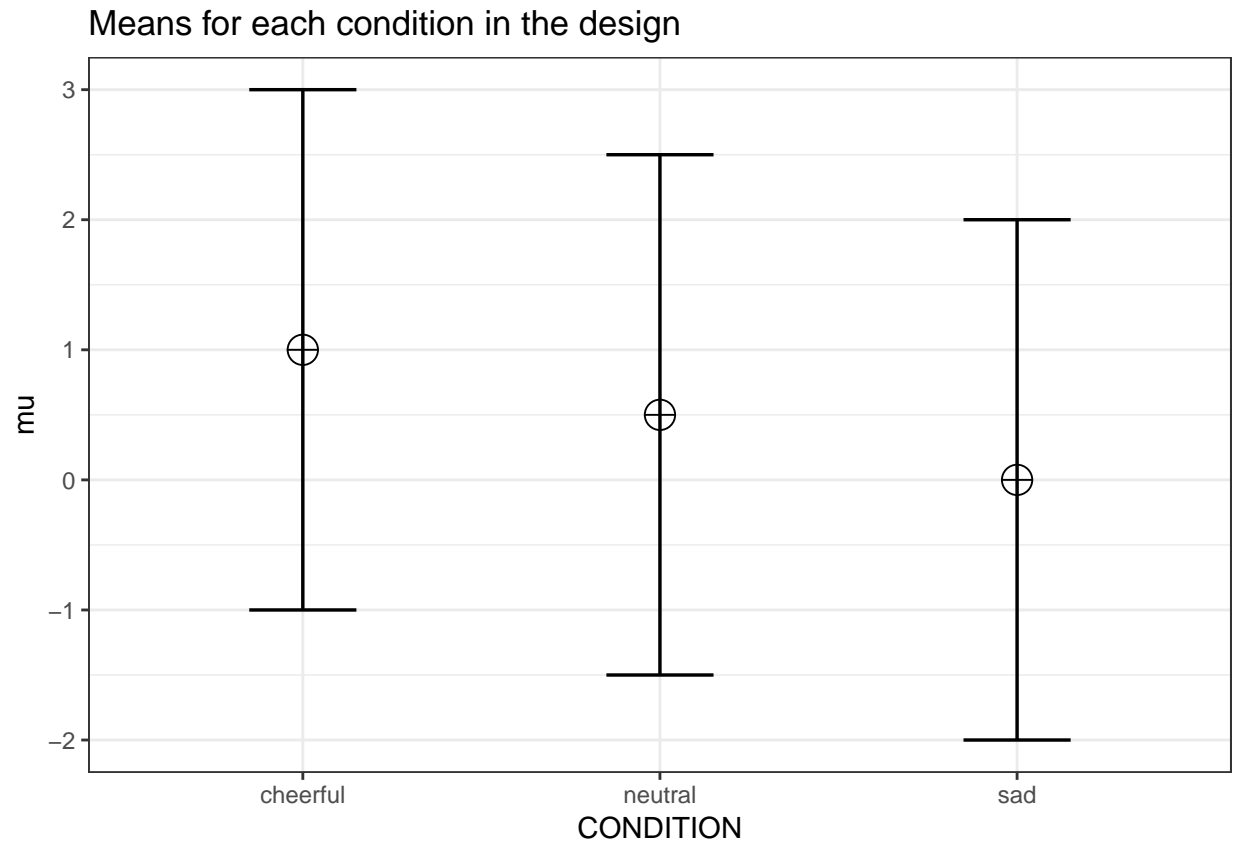
The sample size was **80** per cell with the following adjustment for multiple comparisons: **none**.

## Correlation Matrix

	cheerful	neutral	sad
cheerful	1.0	0.5	0.5
neutral	0.5	1.0	0.5
sad	0.5	0.5	1.0

## Variance-Covariance Matrix

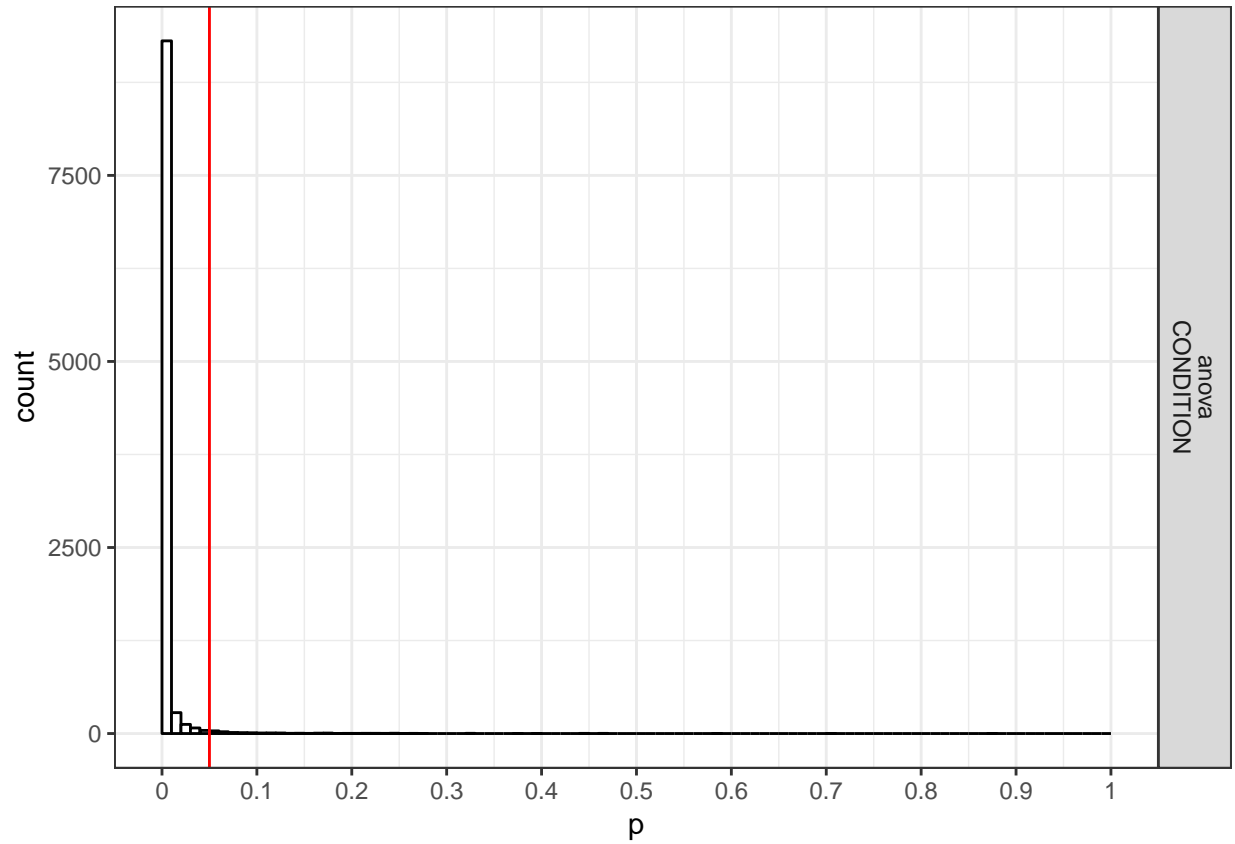
	cheerful	neutral	sad
cheerful	4	2	2
neutral	2	4	2
sad	2	2	4



The seed number for this simulation was set at 2019. A total number of 10000 simulations with an alpha level of 0.05. Please re-use this input to replicate the results below.

### ANOVA Power (%) and Effect Sizes (Partial Eta Squared)

	power	effect_size
anova_CONDITION	98.29	0.1187



### Multiple Comparisons Power (%) and Effect Sizes (Cohen's $d_z$ )

	power	effect_size
p_CONDITION_cheerful_CONDITION_neutral	60.12	-0.2545
p_CONDITION_cheerful_CONDITION_sad	99.24	-0.5062
p_CONDITION_neutral_CONDITION_sad	59.77	-0.2517

