

# Simulation Results

Shiny App developed by Daniël Lakens and Aaron Caldwell

*May 02, 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

3b

## Model Formula

$y \sim \text{CONDITION} + \text{Error}(1 \mid \text{subject})$

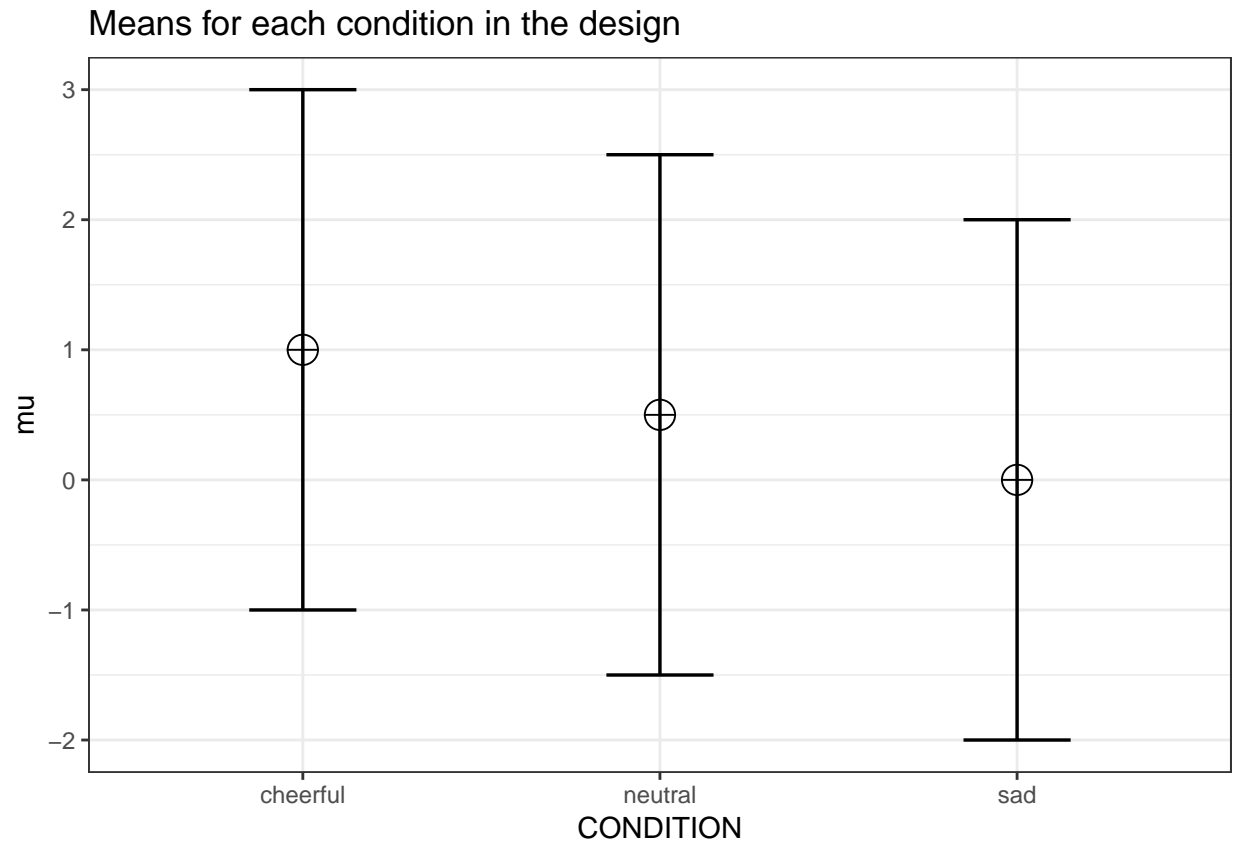
The sample size was **80** per cell with the following adjustment for multiple comparisons: **none**.

## Correlation Matrix

X1	X2	X3
1	0	0
0	1	0
0	0	1

## Variance-Covariance Matrix

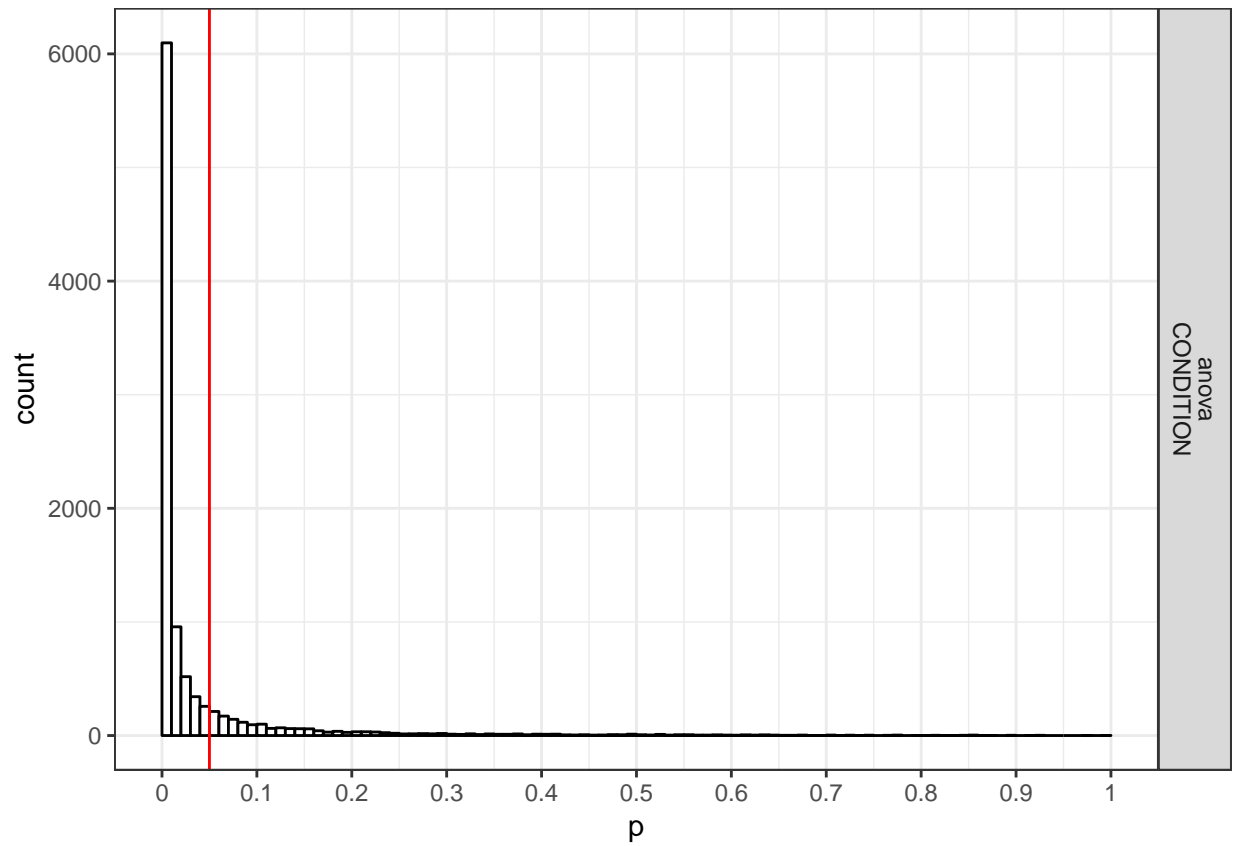
	CONDITION_cheerful	CONDITION_neutral	CONDITION_sad
CONDITION_cheerful	4	0	0
CONDITION_neutral	0	4	0
CONDITION_sad	0	0	4



The seed number for this simulation was set at 2019. A total number of 10000 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	81.71	0.0451



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

	power	effect_size
p_CONDITION_cheerful_CONDITION_neutral	35.59	-0.2525
p_CONDITION_cheerful_CONDITION_sad	88.64	-0.5051
p_CONDITION_neutral_CONDITION_sad	35.94	-0.2525

