# Results

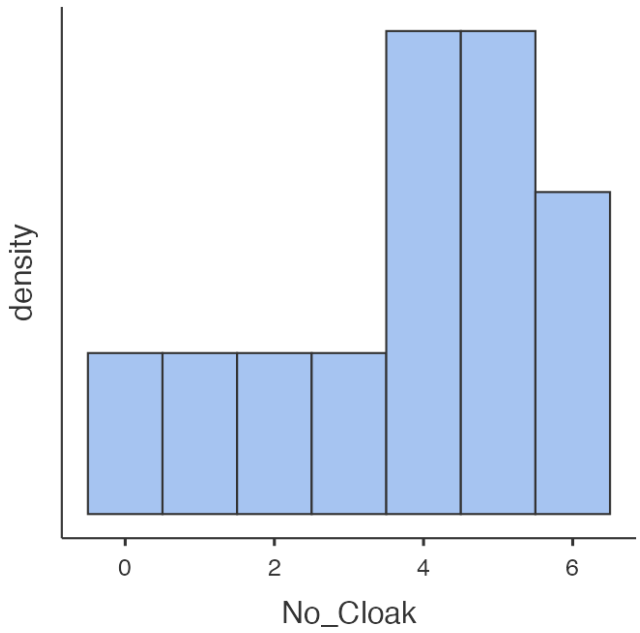
## Descriptives

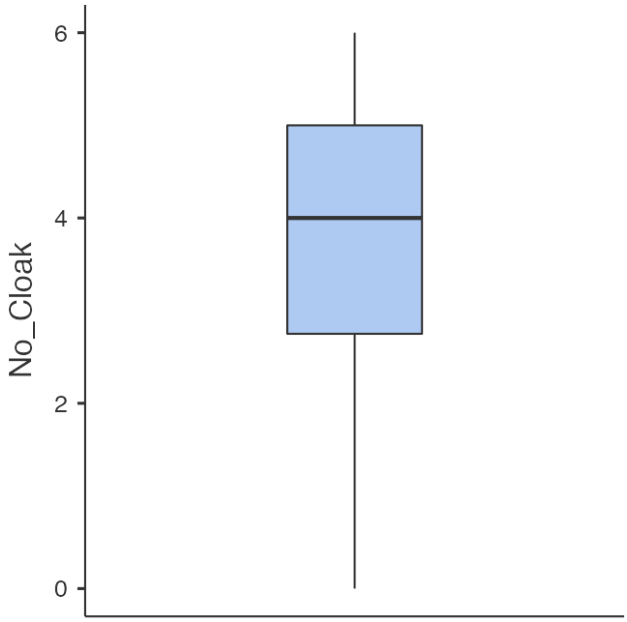
Descriptives

| | No_Cloak | Cloak |
|---|---|---|
| N | 12 | 12 |
| Missing | 0 | 0 |
| Mean | 3.75 | 5.00 |
| Median | 4.00 | 5.00 |
| Standard deviation | 1.91 | 1.65 |
| Minimum | 0.00 | 2.00 |
| Maximum | 6.00 | 8.00 |
| Skewness | -0.789 | 0.00 |
| Std. error skewness | 0.637 | 0.637 |
| Kurtosis | -0.229 | 0.161 |
| Std. error kurtosis | 1.23 | 1.23 |
| Shapiro-Wilk W | 0.913 | 0.973 |
| Shapiro-Wilk p | 0.231 | 0.936 |

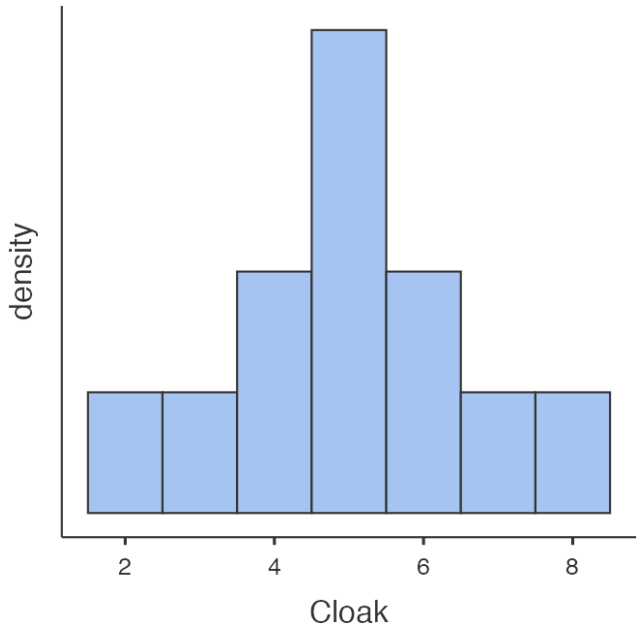
## Plots

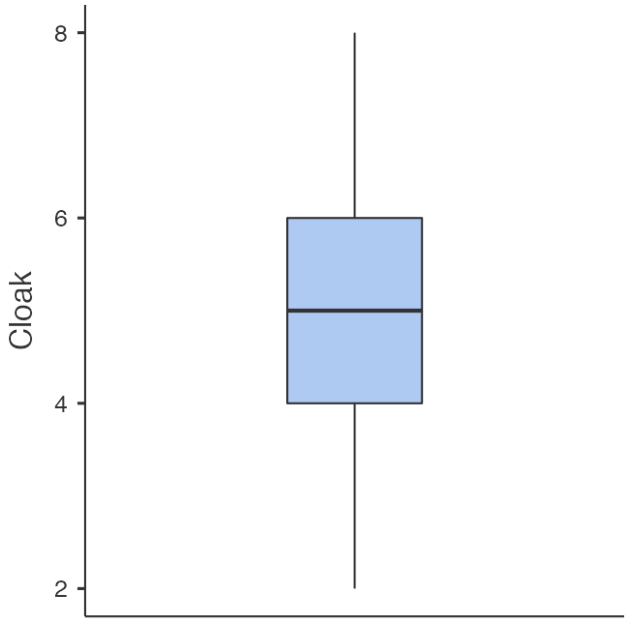
**No_Cloak**






**Cloak**





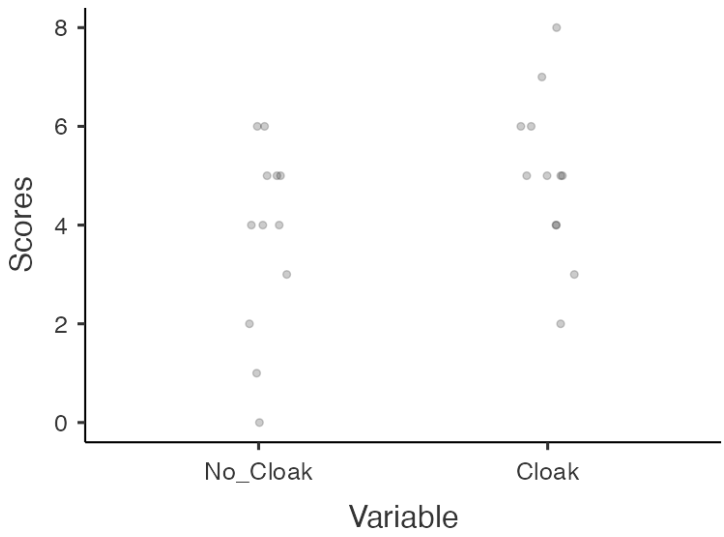

## Repeated Measurements

You have entered two related numeric variables. Hence, the paired sample t test seems to be a good option for you! In order to run this test in jamovi, go to: T-Tests > Paired Samples T-Test

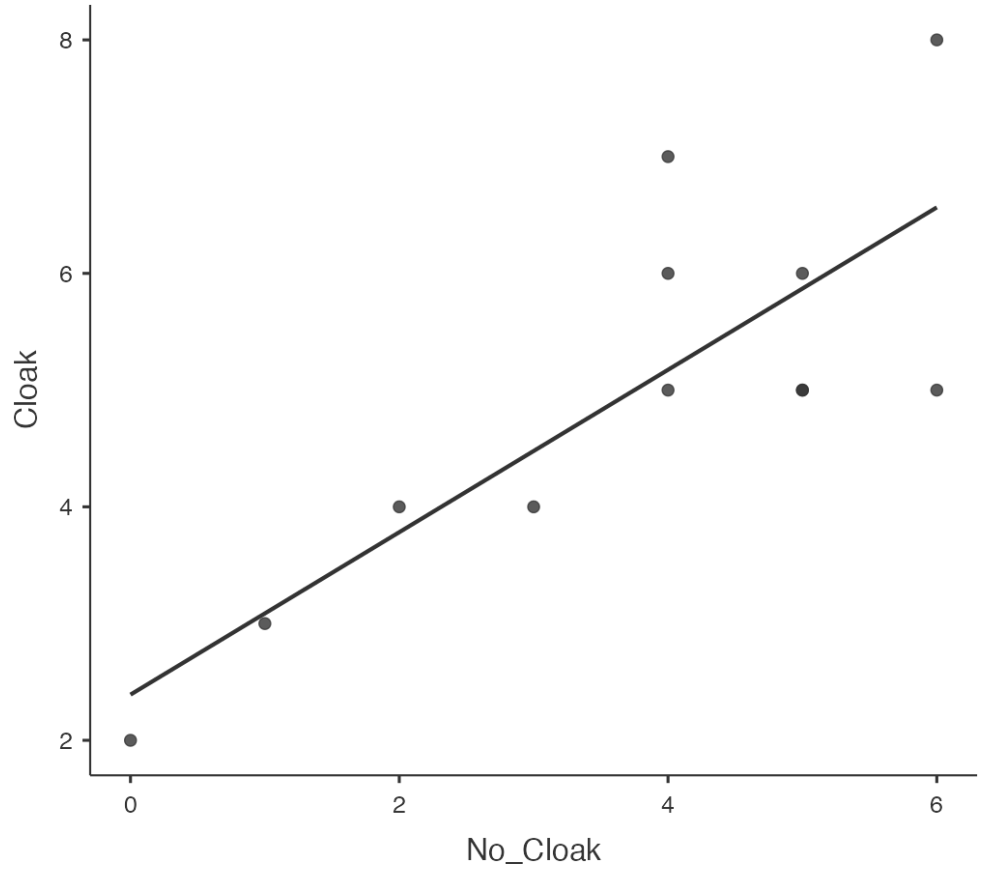
- Drop the two paired variables in the box below Paired Variables, one on the left side of the vertical line and one on the right side of the vertical line
- Under Hypothesis, select your alternative hypothesis

If the normality assumption is violated, you could use the non-parametric Wilcoxon signed rank test. Click on the links to learn more about these tests!

### Scatter Plot




## Scatterplot



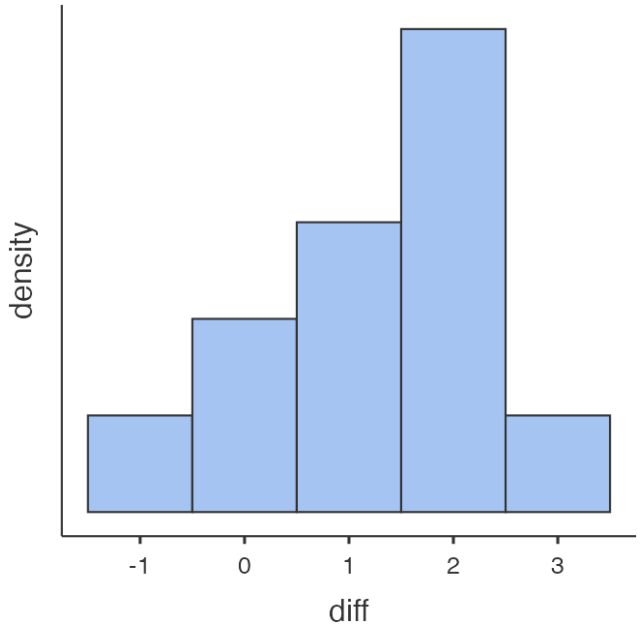

## Descriptives

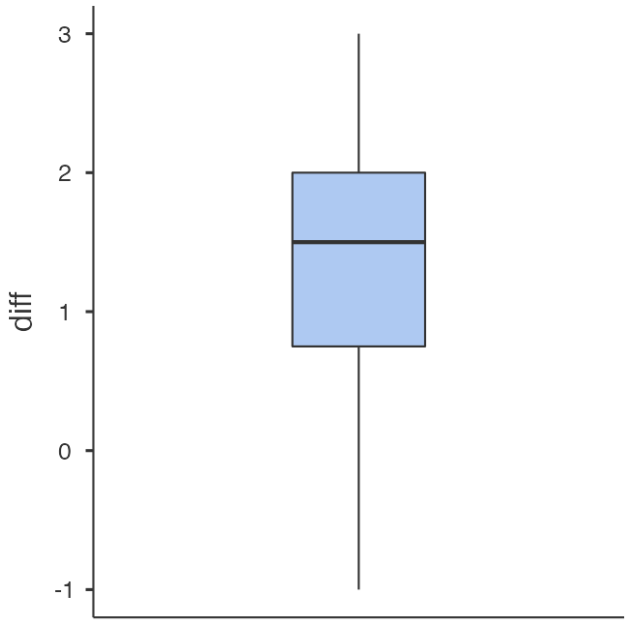
Descriptives

| | diff |
|---|---|
| N | 12 |
| Missing | 0 |
| Mean | 1.25 |
| Median | 1.50 |
| Standard deviation | 1.14 |
| Minimum | -1.00 |
| Maximum | 3.00 |
| Skewness | -0.583 |
| Std. error skewness | 0.637 |
| Kurtosis | -0.138 |
| Std. error kurtosis | 1.23 |
| Shapiro-Wilk W | 0.912 |
| Shapiro-Wilk p | 0.228 |

## Plots

**diff**




## Paired Samples T-Test

Paired Samples T-Test

| | | | | | | | | 95% Confidence Interval | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Statistic | df | p | Mean difference | SE difference | Lower | Upper | | Effect Size |
| No_Cloak | Cloak | Student's t | -3.80 | 11.0 | 0.003 | -1.25 | 0.329 | -1.97 | -0.527 | Cohen's d | -1.10 |
| | | Wilcoxon W | 2.50 [a] | | 0.011 | -1.50 | 0.329 | -2.00 | -0.500 | Rank biserial correlation | -0.909 |

*Note.* $H_a$ $\mu_{Measure\ 1 - Measure\ 2} \neq 0$

[a] 2 pair(s) of values were tied

Normality Test (Shapiro-Wilk)

| | | | W | p |
|---|---|---|---|---|
| No_Cloak | - | Cloak | 0.912 | 0.228 |

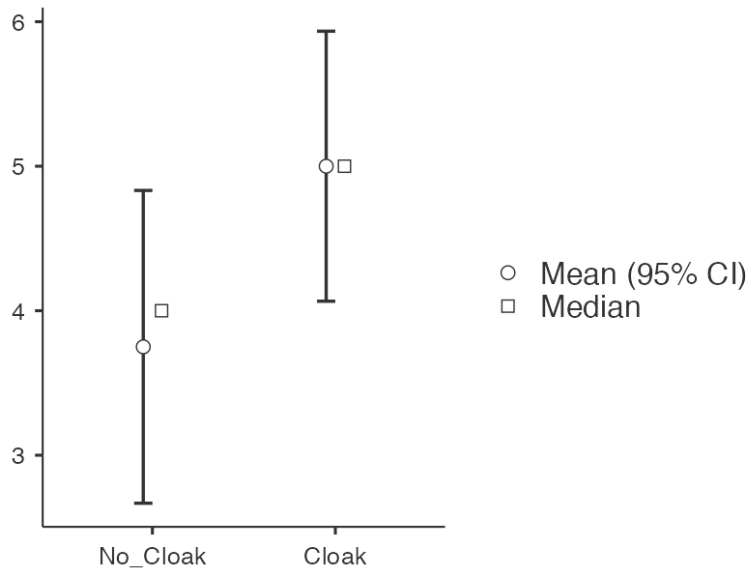
*Note.* A low p-value suggests a violation of the assumption of normality

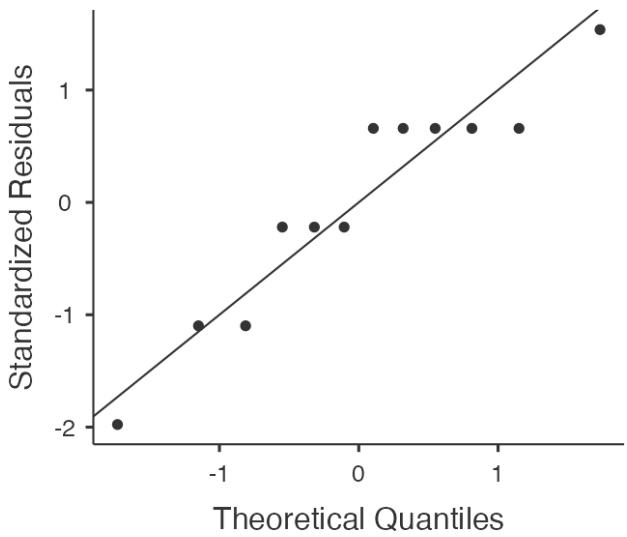
Descriptives

| | N | Mean | Median | SD | SE |
|---|---|---|---|---|---|
| No_Cloak | 12 | 3.75 | 4.00 | 1.91 | 0.552 |
| Cloak | 12 | 5.00 | 5.00 | 1.65 | 0.477 |

## Plots

**No_Cloak - Cloak**




# Robust Paired Samples T-Test

Robust Paired Samples T-Test

| | | t | df | p | Mean difference | SE | 95% Confidence Interval | | Cohen's d |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper | |
| No_Cloak | Cloak | -2.70 | 7.00 | 0.031 | -1.00 | 0.370 | -1.87 | -0.125 | 0.398 |

# Bayesian Paired Samples T-Test

Bayesian Paired Samples T-Test

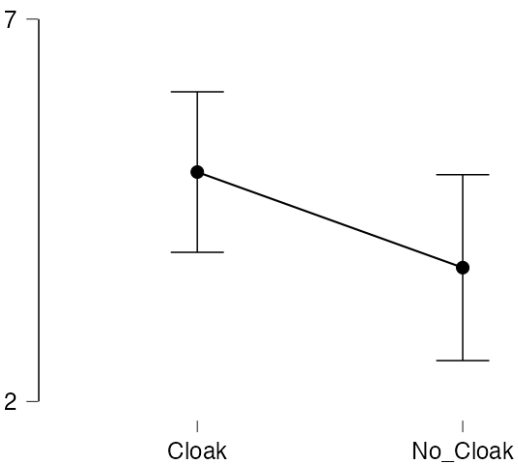
| | | | $BF_{10}$ | error % |
|---|---|---|---|---|
| No_Cloak | - | Cloak | 16.3 | 4.03e-6 |

**[4] [5] [6]**

## Descriptives

### Descriptives Plot

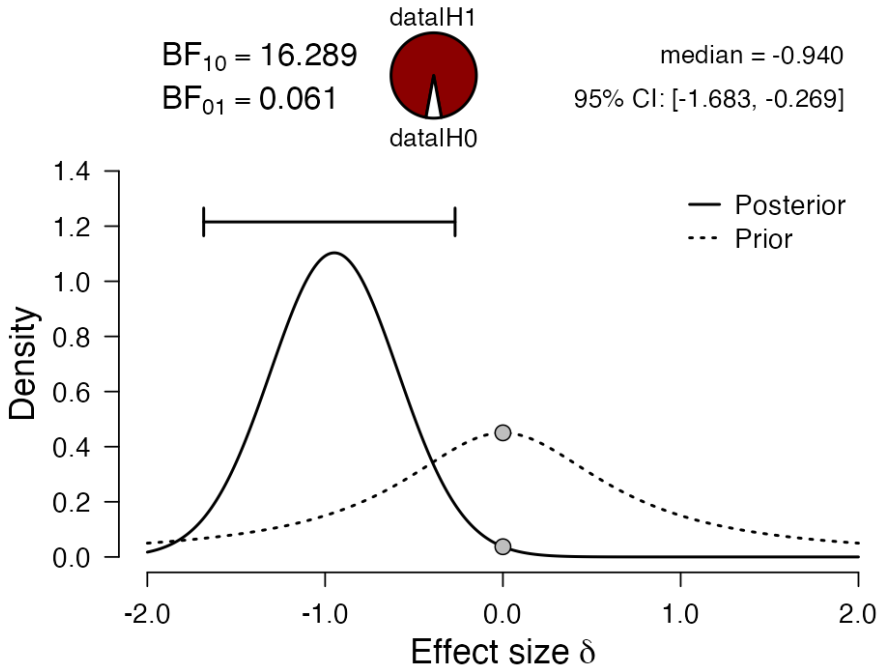
### No_Cloak - Cloak



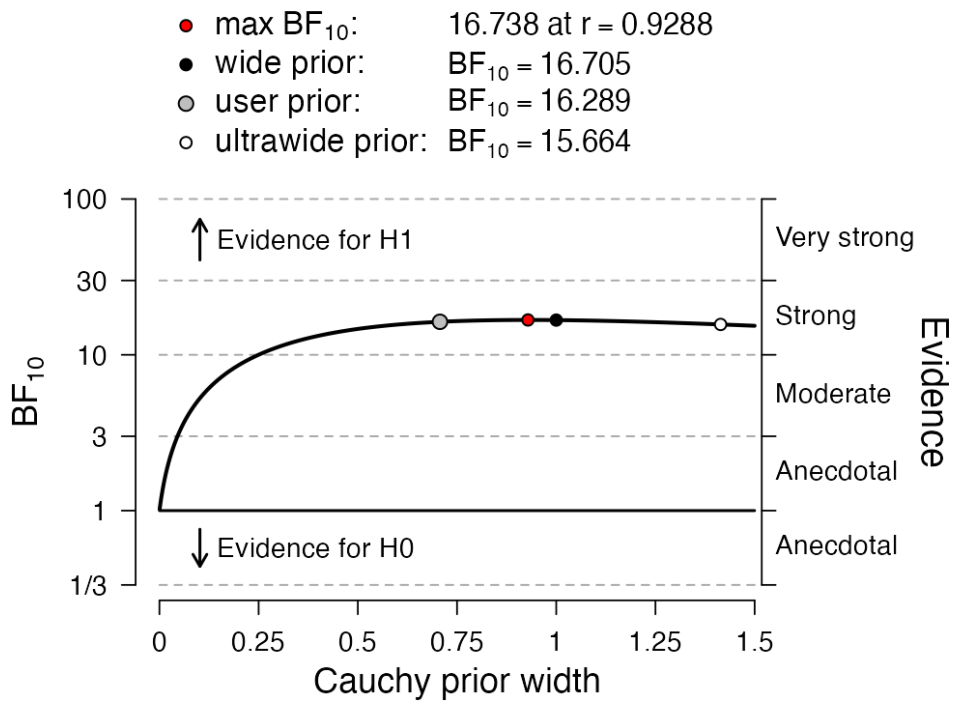

## Inferential Plots

### No_Cloak - Cloak

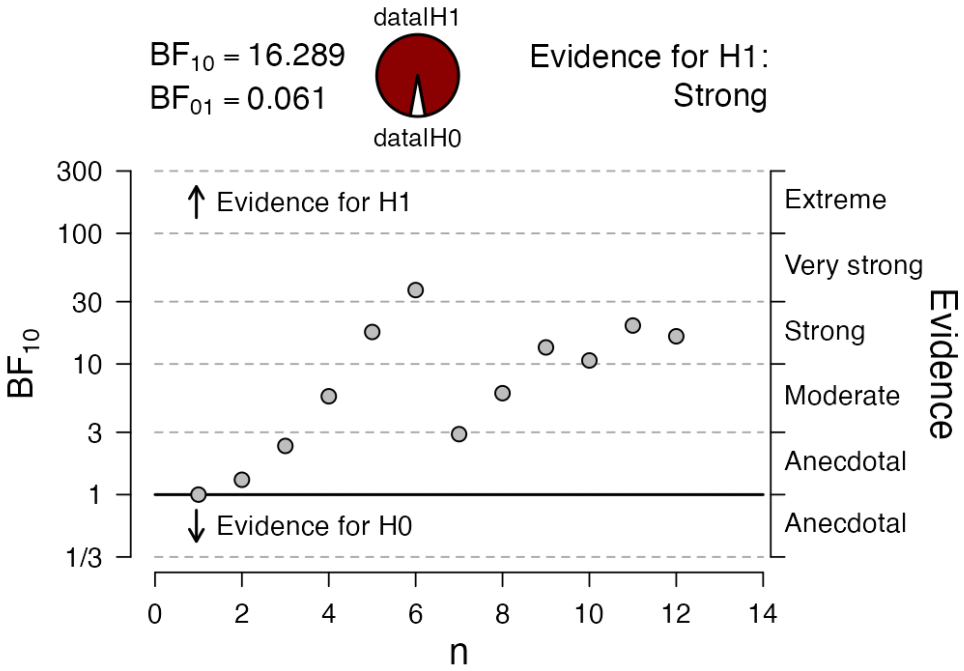
### Prior and Posterior




**Bayes Factor Robustness Check**




**Sequential Analysis**




**[4]**

## References

**[1]** The jamovi project (2022). *jamovi*. (Version 2.3) [Computer Software]. Retrieved from https://www.jamovi.org.

**[2]** R Core Team (2021). *R: A Language and environment for statistical computing*. (Version 4.1) [Computer software]. Retrieved from https://cran.r-project.org. (R packages retrieved from MRAN snapshot 2022-01-01).

**[3]** Kerby, D. S. (2014). The simple difference formula: An approach to teaching nonparametric correlation. *Comprehensive Psychology, 3*, 2165–2228.

**[4]** JASP Team (2018). *JASP*. [Computer software]. Retrieved from https://jasp-stats.org.

**[5]** Morey, R. D., & Rouder, J. N. (2018). *BayesFactor: Computation of Bayes Factors for Common Designs*. [R package]. Retrieved from https://cran.r-project.org/package=BayesFactor.

**[6]** Rouder, J. N., Speckman, P. L., Sun, D., Morey, R. D., & Iverson, G. (2009). Bayesian t tests for accepting and rejecting the null hypothesis. *Psychonomic Bulletin & Review, 16*, 225-237.