Results

Descriptives

Descriptives

	Cloak
N	24
Missing	0

Frequencies

Frequencies of Cloak

Cloak	Counts	% of Total	Cumulative %
No Cloak	12	50.0%	50.0%
Cloak	12	50.0%	100.0%

Plots

Cloak
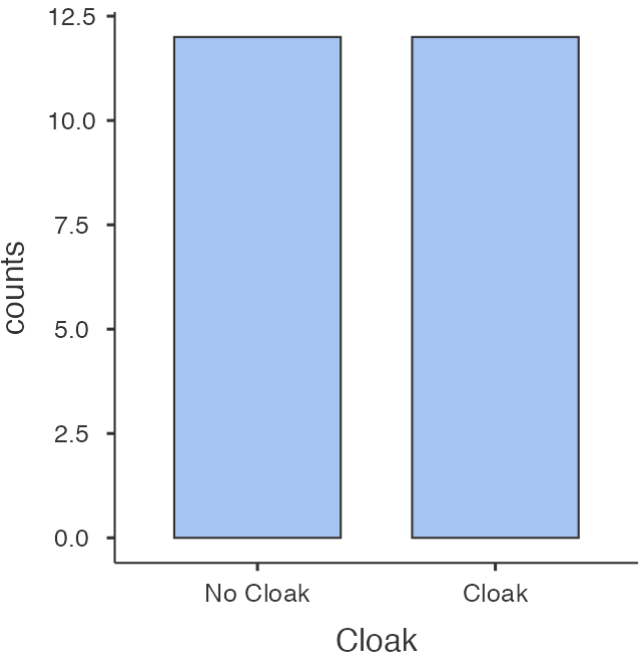
Descriptives

Descriptives

|	Cloak	Mischief
N	No Cloak	12
	Cloak	12
Missing	No Cloak	0
	Cloak	0
Mean	No Cloak	3.75
	Cloak	5.00
Median	No Cloak	4.00
	Cloak	5.00
Standard deviation	No Cloak	1.91
	Cloak	1.65
Minimum	No Cloak	0.00
	Cloak	2.00
Maximum	No Cloak	6.00
	Cloak	8.00
Skewness	No Cloak	-0.789
	Cloak	0.00
Std. error skewness	No Cloak	0.637
	Cloak	0.637
Kurtosis	No Cloak	-0.229
	Cloak	0.161
Std. error kurtosis	No Cloak	1.23
	Cloak	1.23
Shapiro-Wilk W	No Cloak	0.913
	Cloak	0.973
Shapiro-Wilk p	No Cloak	0.231
	Cloak	0.936

Plots

Mischief
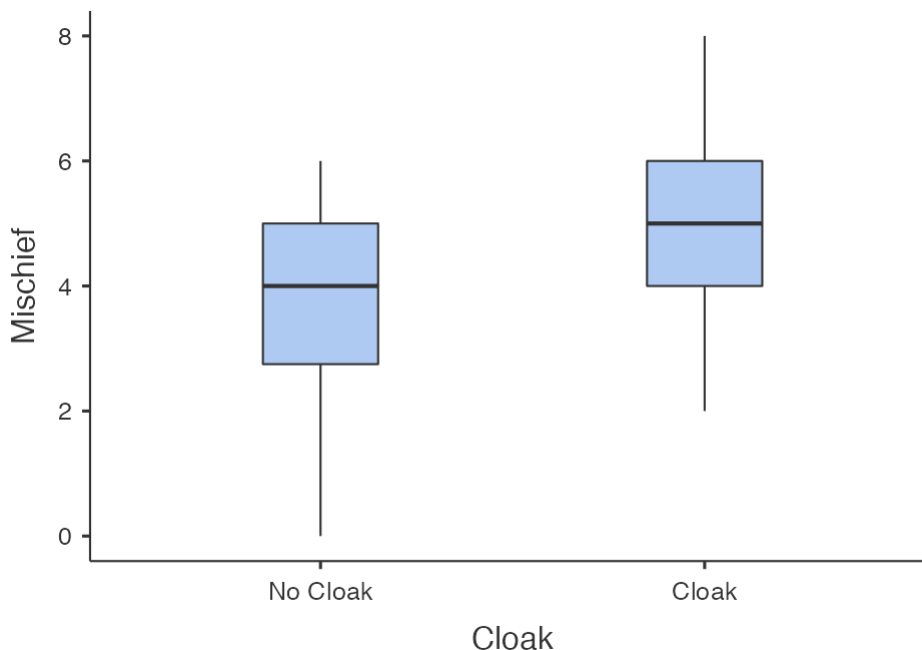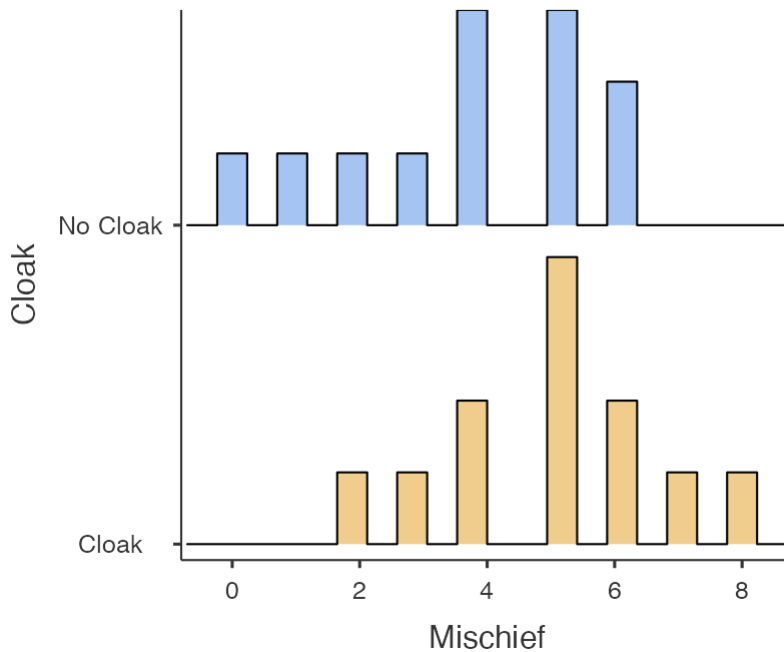
Relationships, Prediction, and Group Comparisons

You have entered a numeric variable for Variable 1 / Dependent Variable and a dichotomous variable for Variable 2 / Independent Variables. Hence, the two sample t test assuming equal population variances or the two sample t test not assuming equal population variances seems to be a good option for you! Both tests are tests for the difference between two population means. In order to run these tests in jamovi, go to: T-Tests > Independent Samples T-Test

- Drop your dependent (numeric) variable in the box below Dependent Variables and your independent (grouping) variable in the box below Grouping Variable
- Under Tests, select Student's if you want to assume equal population variances, and Welch's if you don't want to assume equal population variances
- Under Hypothesis, select your alternative hypothesis

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

Scatter Plots of Bivariate Relationships - Dependent/Independent Variables

Cloak
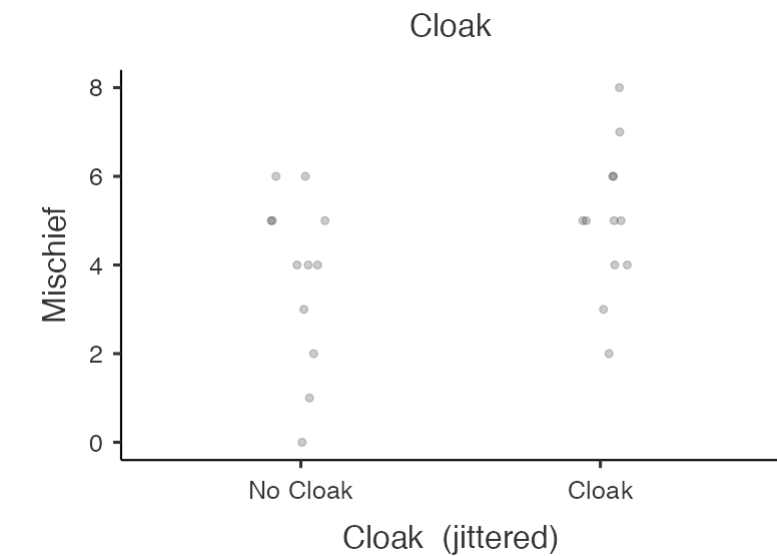
Independent Samples T-Test

Independent Samples T-Test

		Statistic	df	p	Mean difference	SE difference	95% Confidence Interval			Effect Size	
							Lower	Upper			
Mischief	Student's t	-1.71	22.0	0.101	-1.25	0.730	-2.76	0.263	Cohen's d	-0.700	
	Welch's t	-1.71	21.5	0.101	-1.25	0.730	-2.76	0.265	Cohen's d	-0.700	

Note. H_a $\mu_{No\ Cloak} \neq \mu_{Cloak}$

Assumptions

Normality Test (Shapiro-Wilk)

	W	p
Mischief	0.965	0.546

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

Homogeneity of Variances Test (Levene's)

	F	df	df2	p
Mischief	0.545	1	22	0.468

Note. A low p-value suggests a violation of the assumption of equal variances

[3]

Group Descriptives

	Group	N	Mean	Median	SD	SE
Mischief	No Cloak	12	3.75	4.00	1.91	0.552
	Cloak	12	5.00	5.00	1.65	0.477

Plots

Mischief
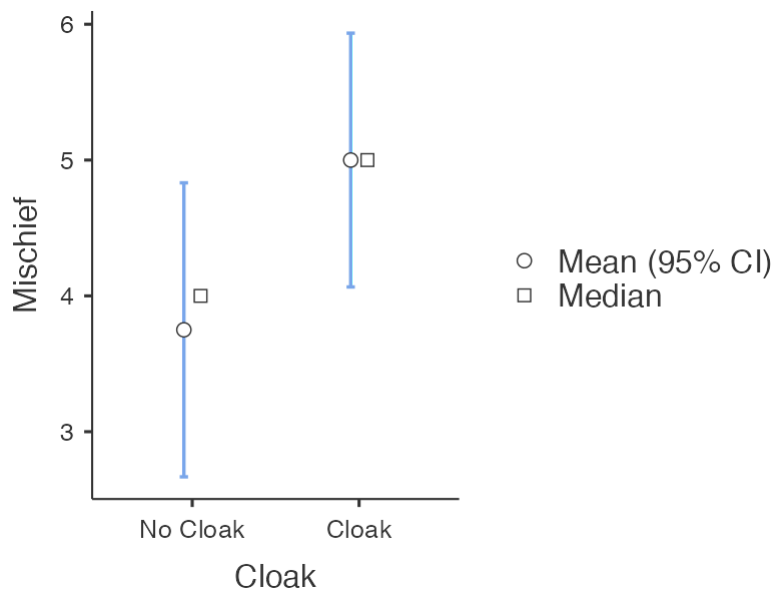
Robust Independent Samples T-Test

Robust Independent Samples T-Test

		t	df	p	Mean diff	95% Confidence Interval Lower	95% Confidence Interval Upper	ξ
Mischief	Yuen's test	1.48	12.3	0.165	-1.00	-2.47	0.472	0.398
	Yuen's bootstrapped	-1.36		0.175				

Bayesian Independent Samples T-Test

Bayesian Independent Samples T-Test

	BF_{10}	error %
Mischief	1.05	0.00355

[4] [5] [6]

Descriptives

Group Descriptives

	Group	N	Mean	SD	SE	95% Credible Interval Lower	95% Credible Interval Upper
Mischief	No Cloak	12	3.75	1.91	0.552	2.53	4.97
	Cloak	12	5.00	1.65	0.477	3.95	6.05

Descriptives Plot

Mischief
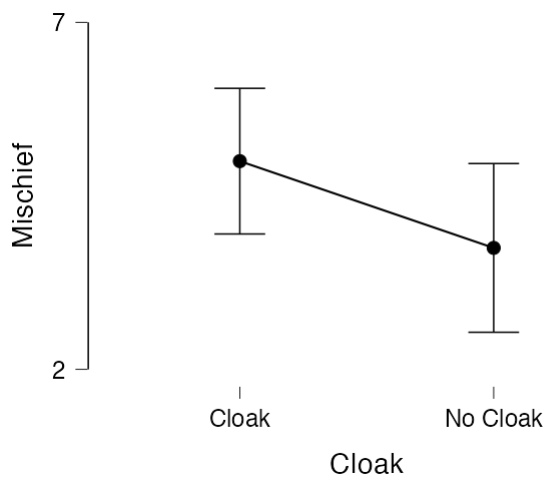
Inferential Plots

Mischief

Prior and Posterior

$BF_{10} = 1.051$

$BF_{01} = 0.952$

data|H1

data|H0

median = -0.510

95% CI: [-1.329, 0.215]
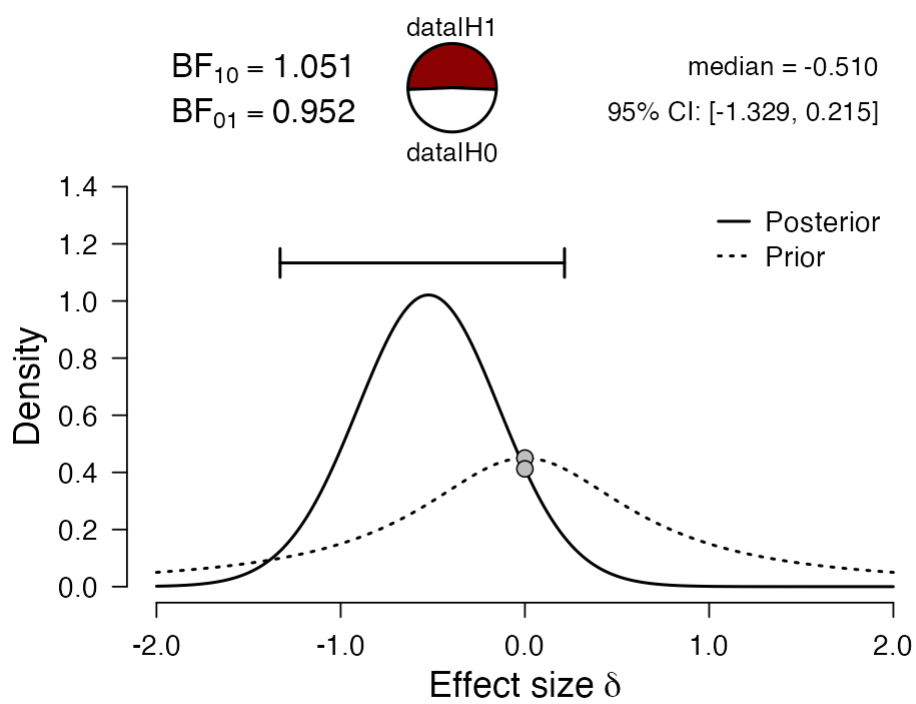
Bayes Factor Robustness Check

- • max BF_{10}:   1.183 at r = 0.2824
- ○ user prior: BF_{10} = 1.051
- • wide prior: BF_{01} = 1.086
- ○ ultrawide prior: BF_{01} = 1.313
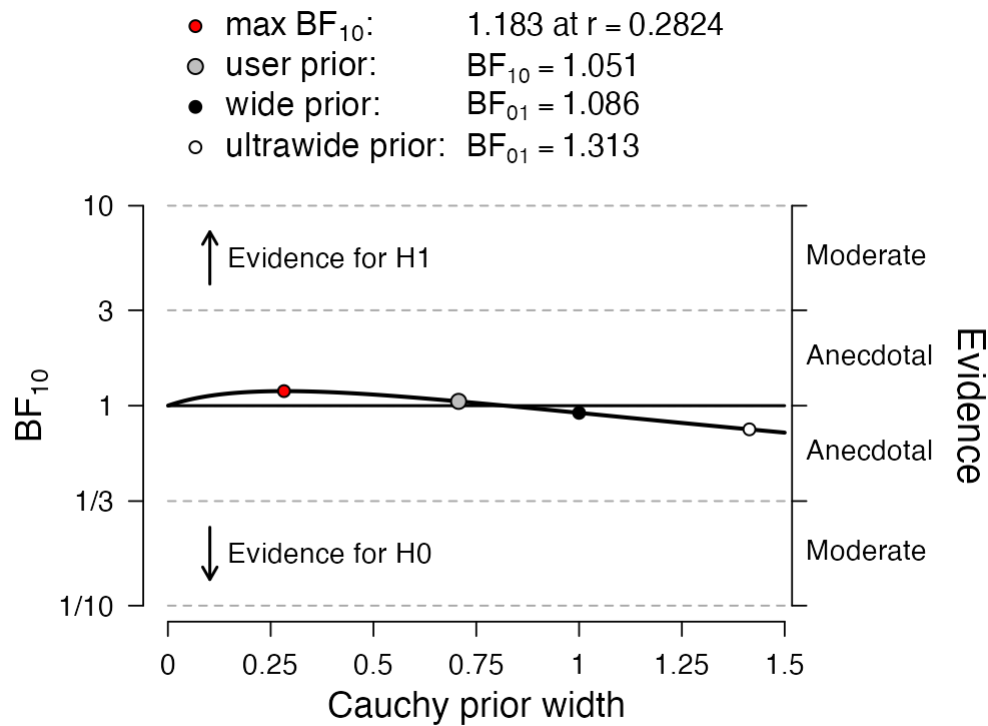
References

[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] Fox, J., & Weisberg, S. (2020). *car: Companion to Applied Regression*. [R package]. Retrieved from https://cran.r-project.org/package=car.

[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.