

# Dataset: Iris Flower dataset

(a) setosa

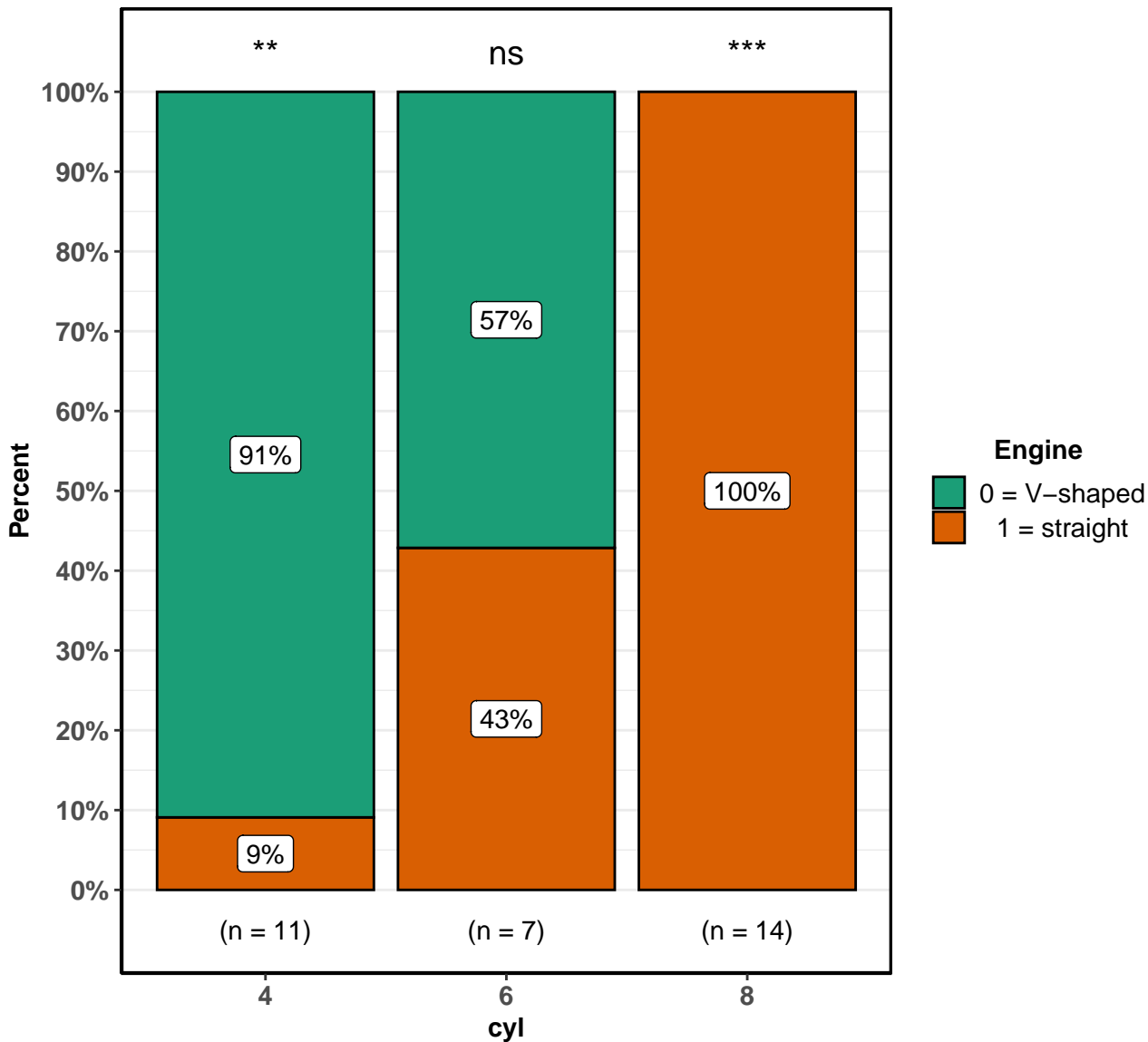


(b) versicolor



Note: Only two species of flower are displayed

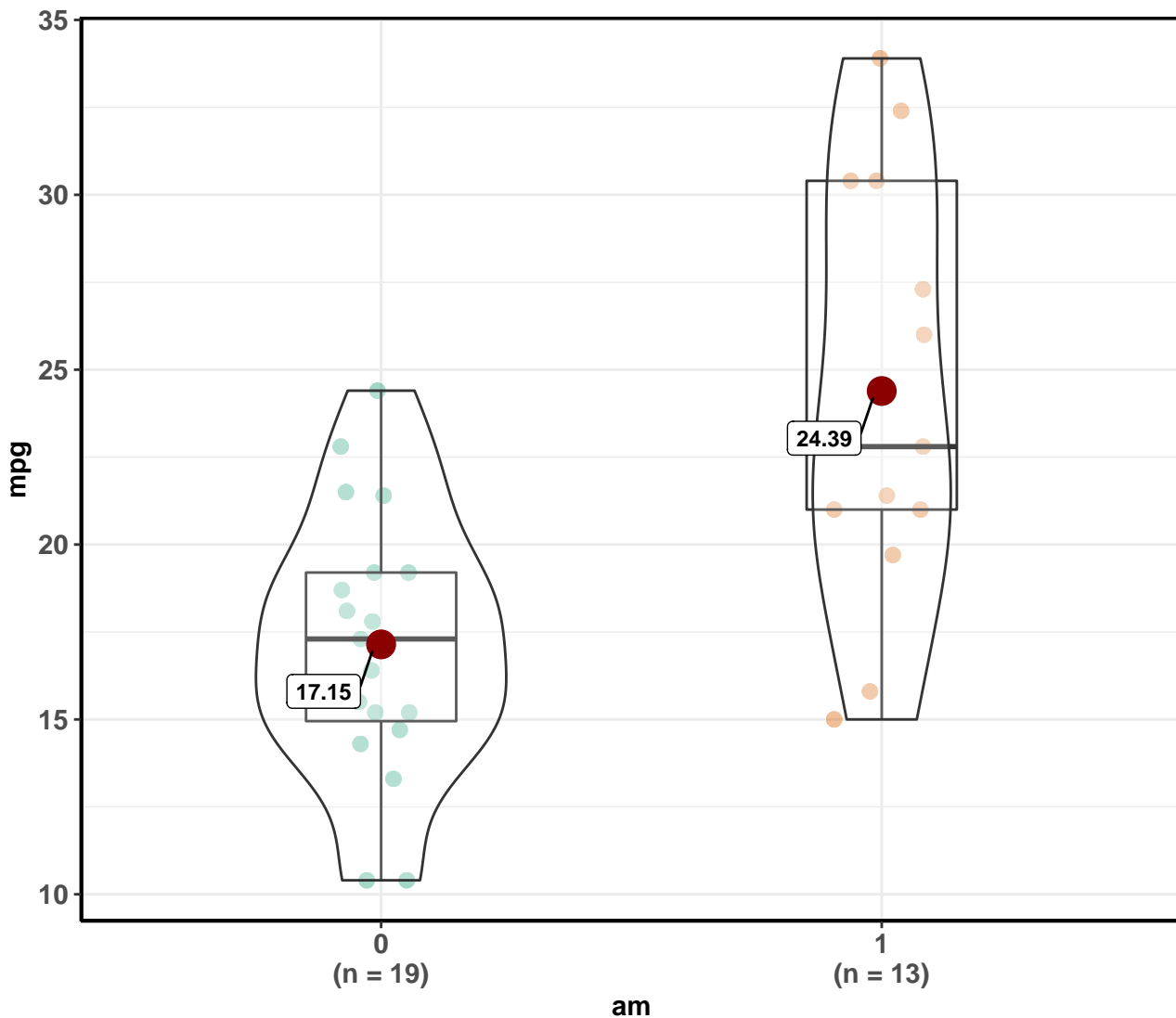
$\chi^2(2) = 21.34$ ,  $p = < 0.001$ ,  $V_{\text{Cramer}} = 0.82$ ,  $\text{CI}_{95\%} [0.41, 0.68]$ ,  $n = 32$



In favor of null:  $\log_e(\text{BF}_{01}) = -10.31$ , sampling = independent multinomial,  $a = 1.00$

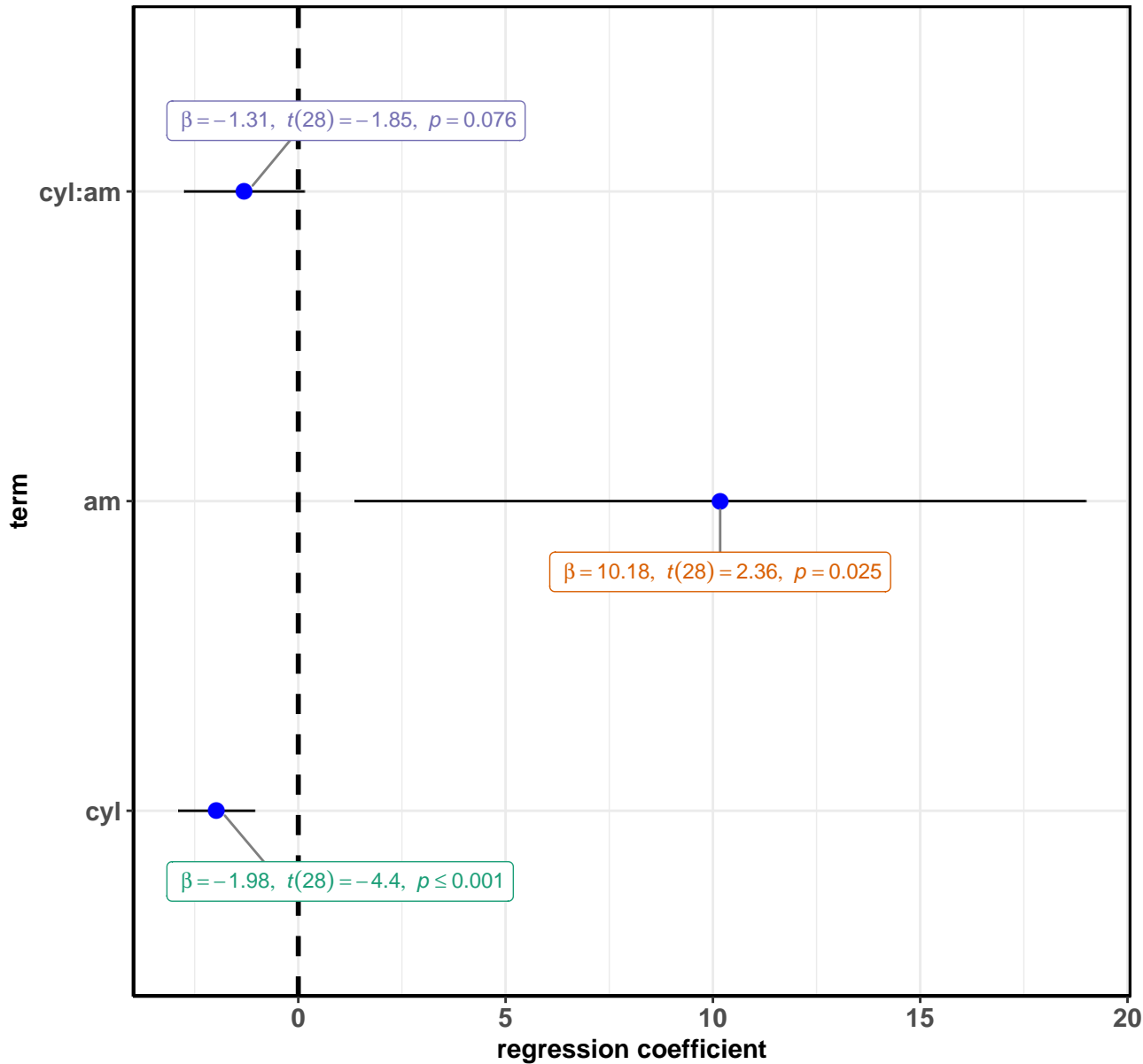
# Fuel efficiency by type of car transmission

$t(18.33) = -3.77, p = 0.001, g = -1.38, \text{CI}_{95\%} [-2.17, -0.51], n = 32$

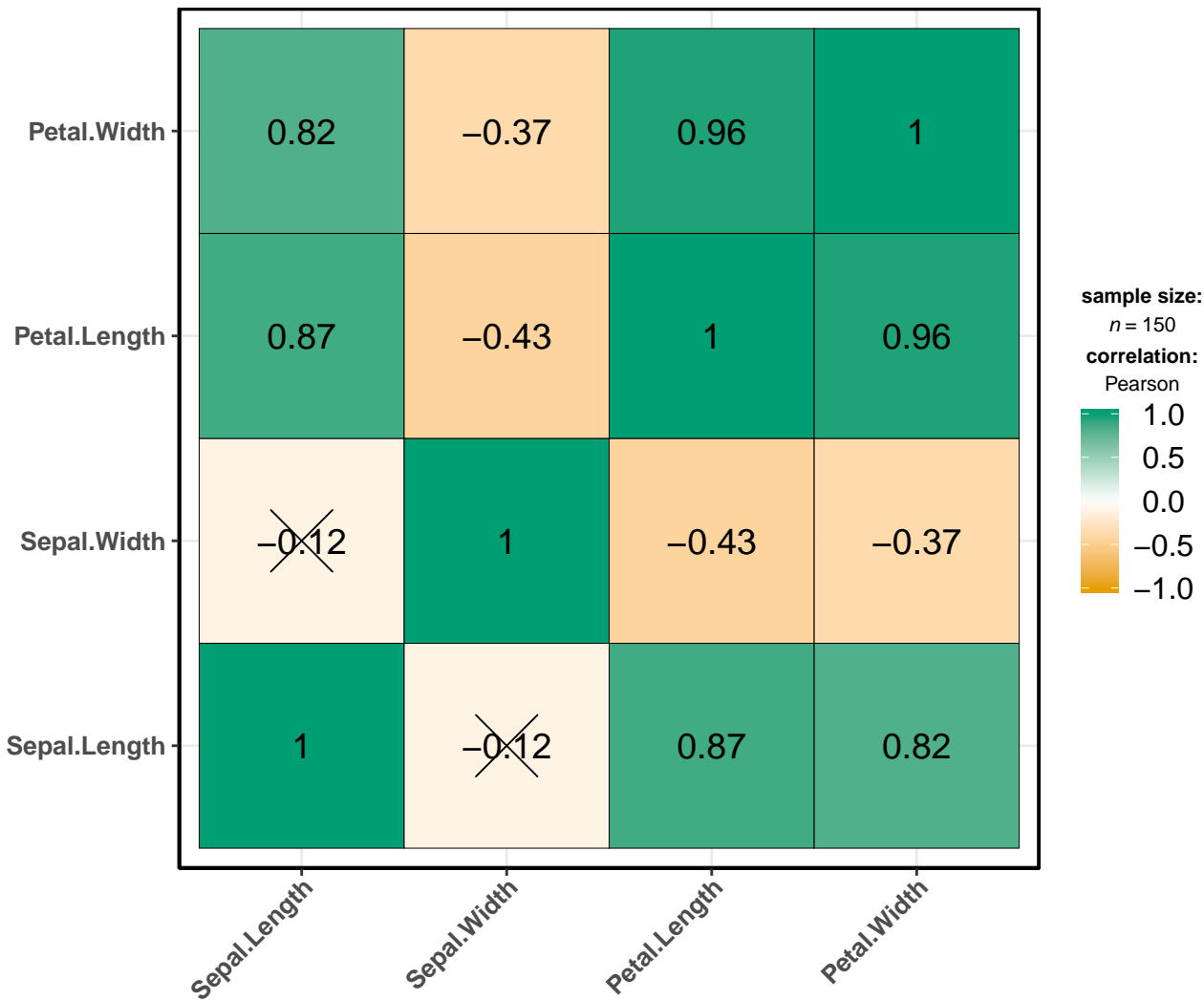


Transmission (0 = automatic, 1 = manual)

In favor of null:  $\log_e(\text{BF}_{01}) = -4.46, r_{\text{Cauchy}} = 0.71$

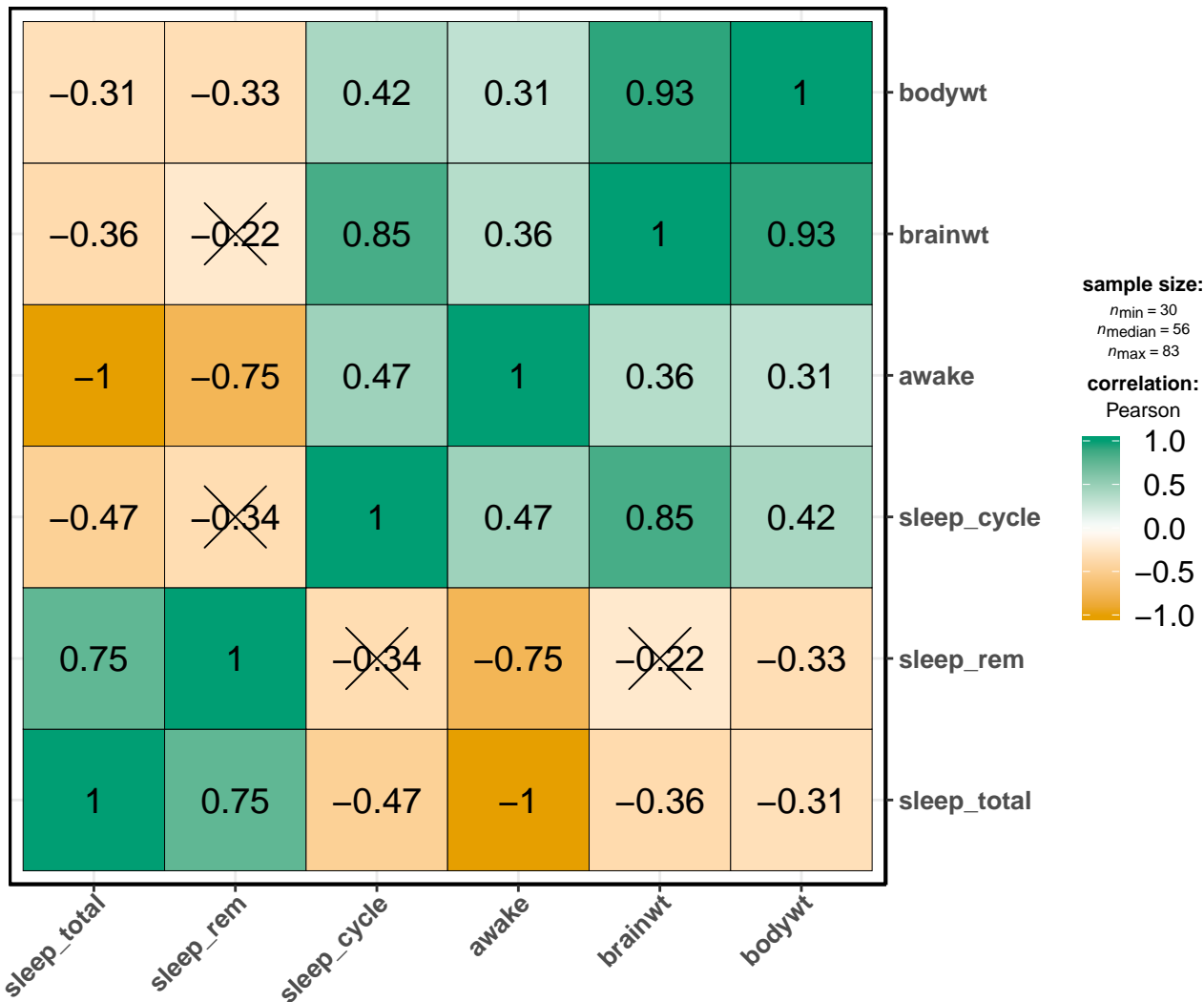


AIC = 166, BIC = 173, log-likelihood = -78



X = correlation non-significant at  $p < 0.05$

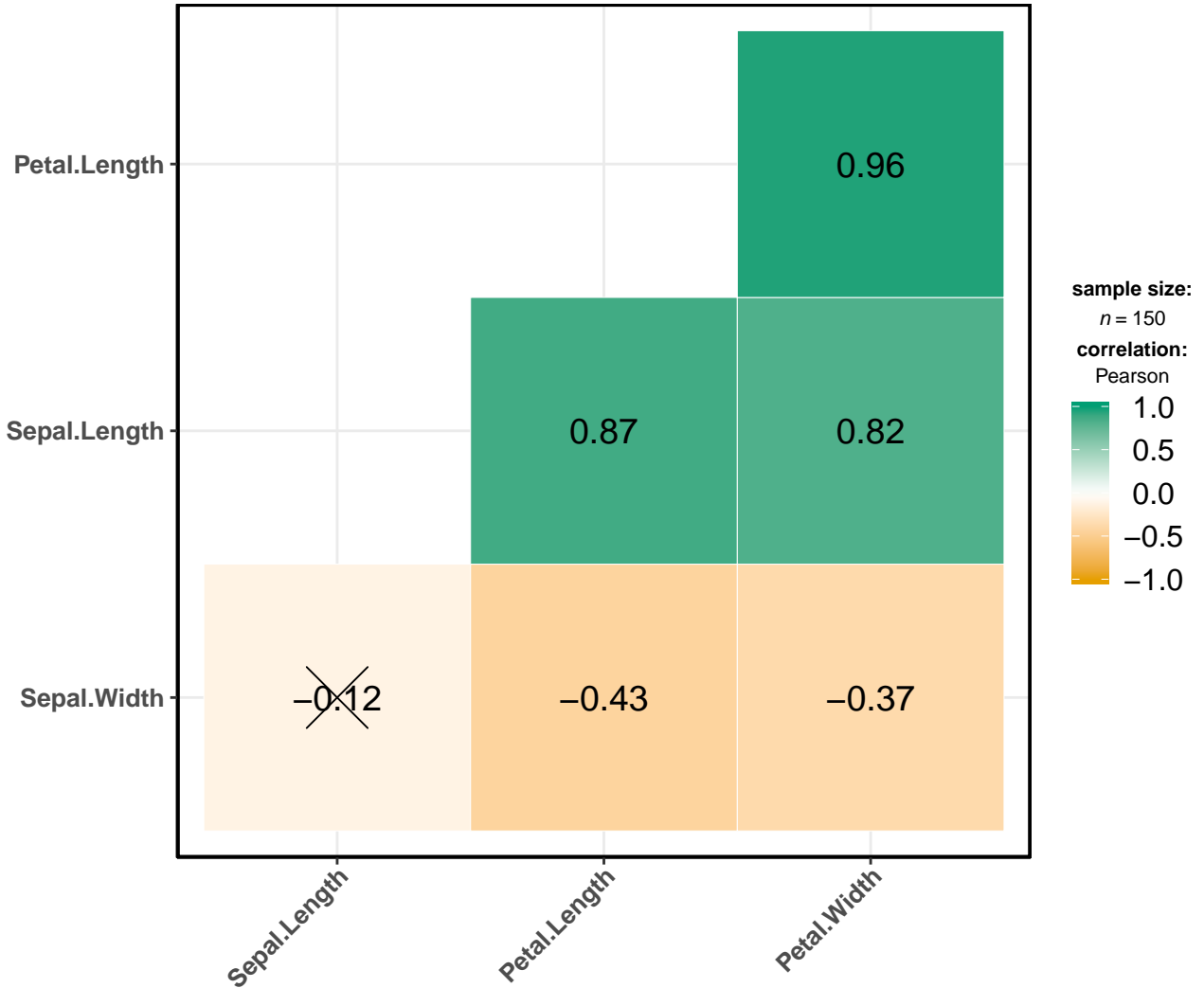
Adjustment (p-value): None



X = correlation non-significant at  $p < 0.05$

Adjustment (p-value): None

Dataset: Iris

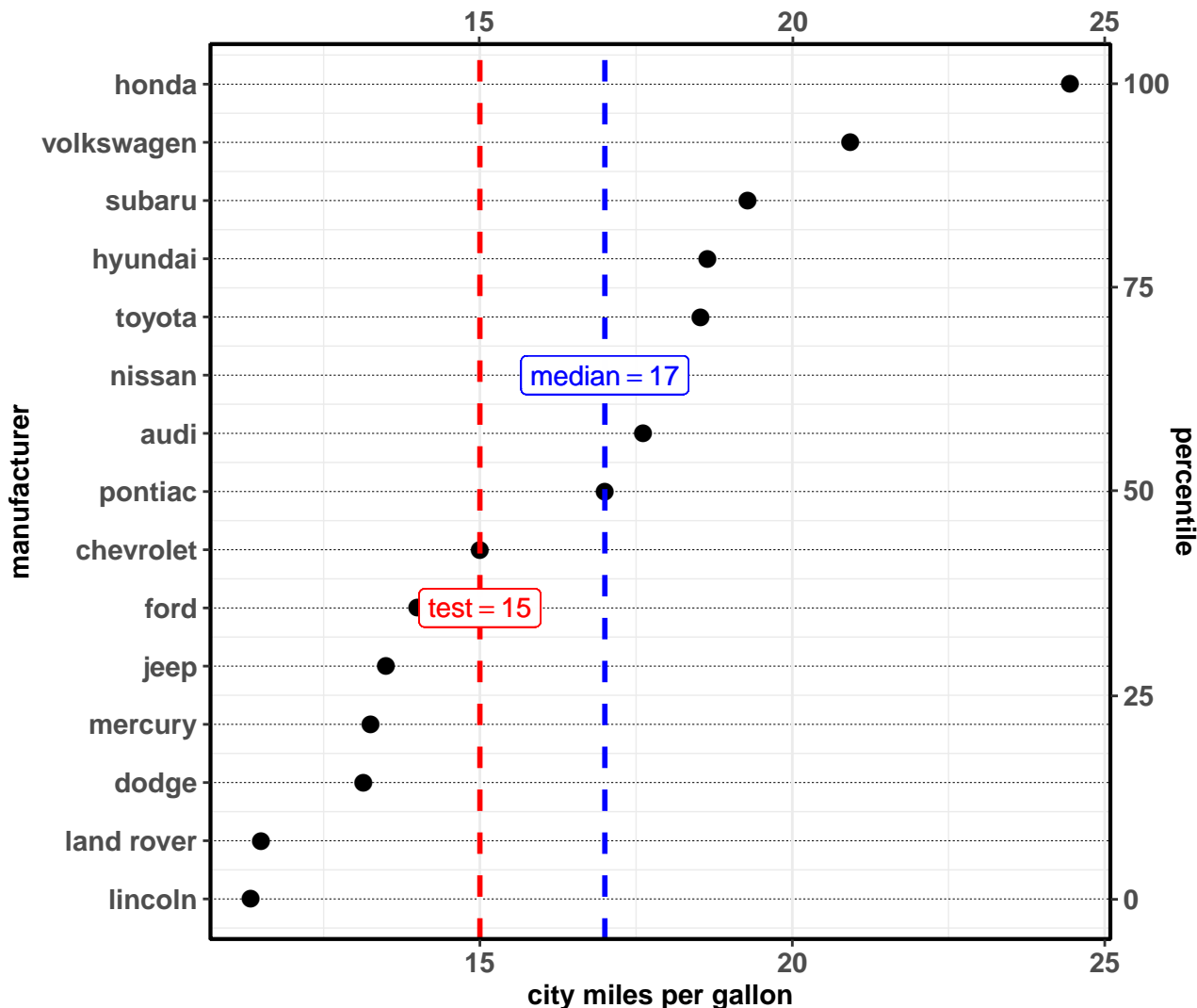


X = correlation non-significant at  $p < 0.01$

Adjustment (p-value): None

# Fuel economy data

$t(14) = 1.47$ ,  $p = 0.163$ ,  $g = 0.36$ ,  $CI_{99\%} [-0.33, 1.10]$ ,  $n = 15$

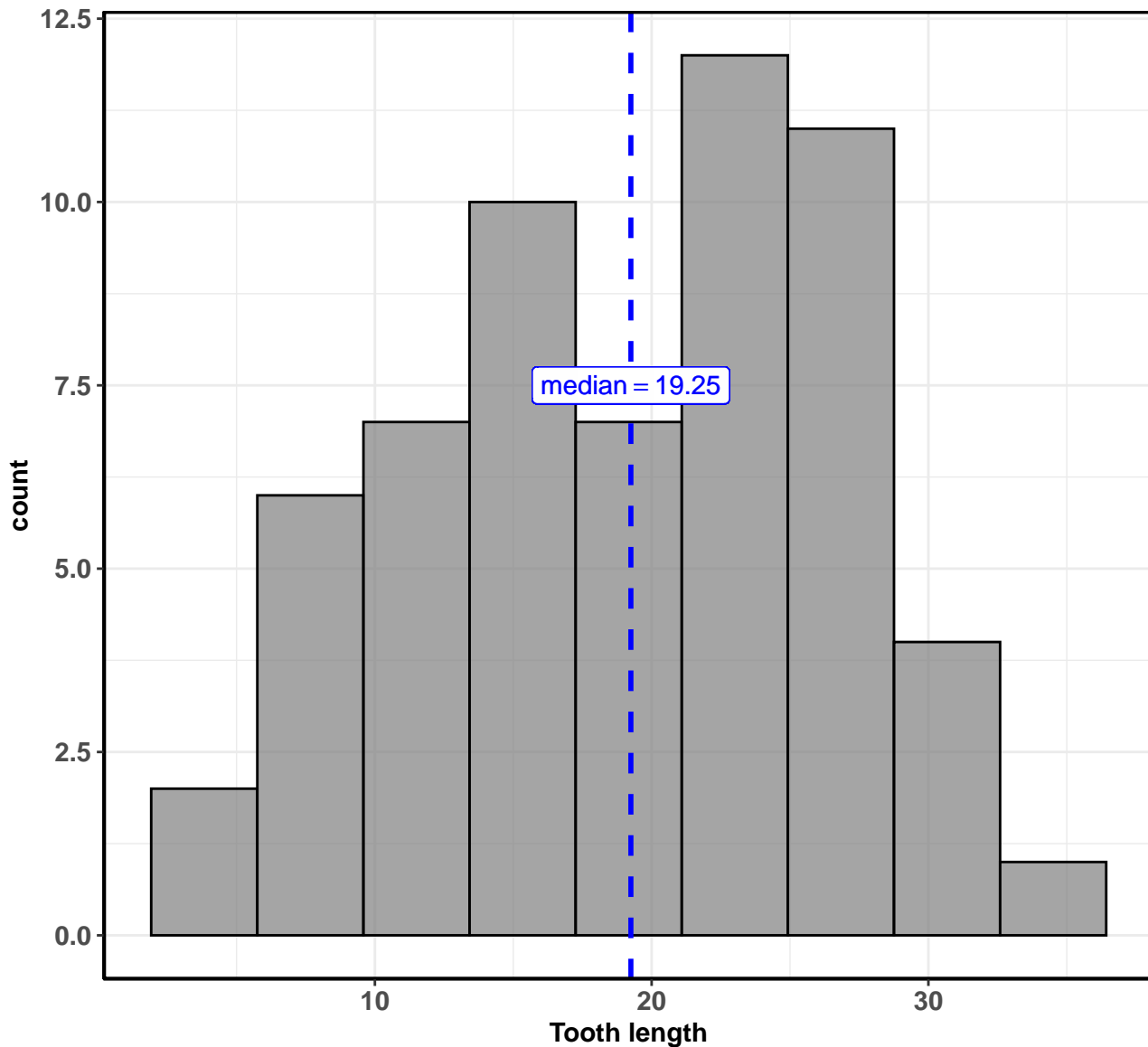


Source: EPA dataset on <http://fuelconomy.gov>

In favor of null:  $\log_e(BF_{01}) = 0.44$ ,  $r_{\text{Cauchy}} = 0.71$

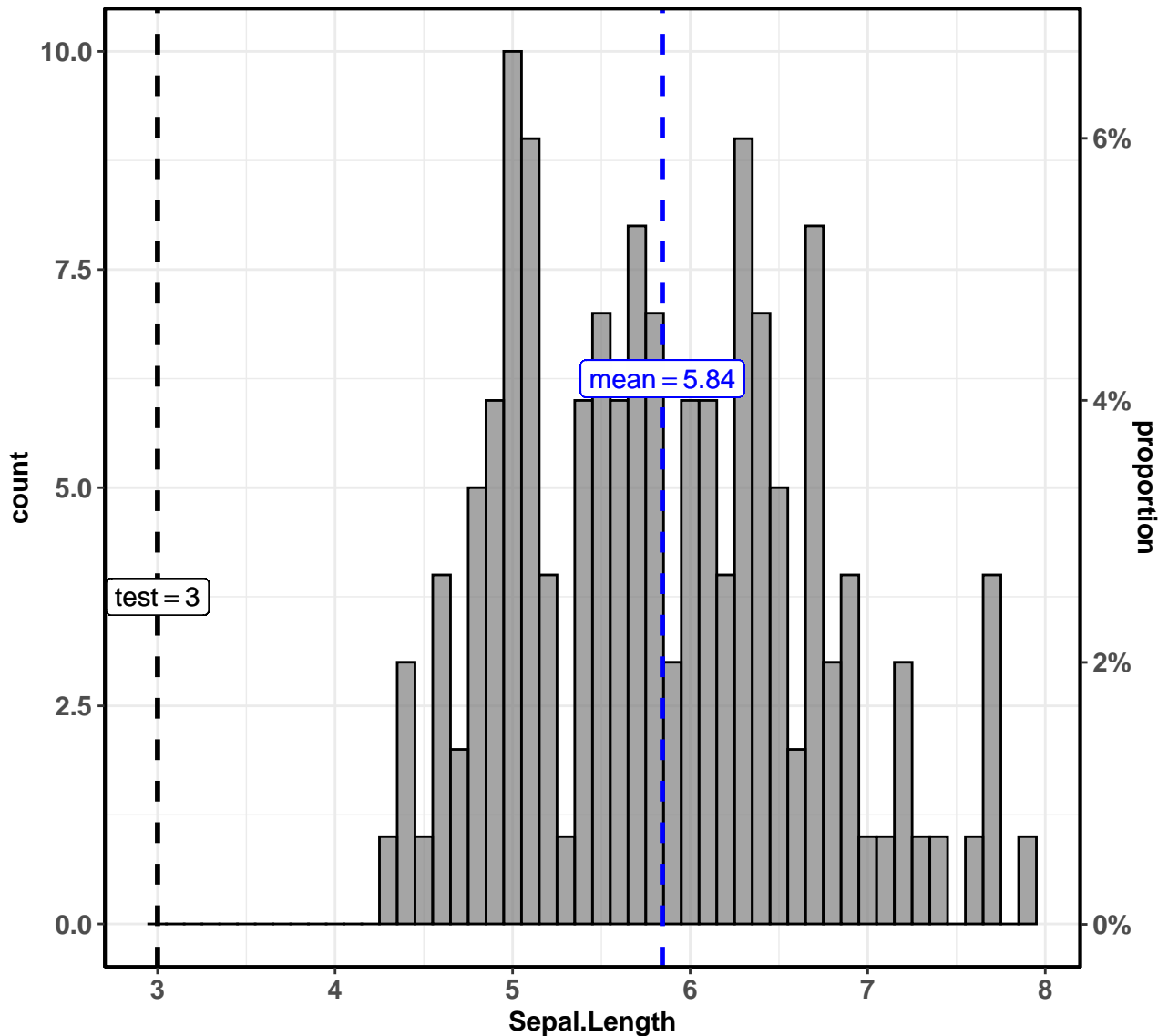


$t(59) = 19.05, p = < 0.001, g = 2.43, CI_{95\%} [1.96, 2.99], n = 60$



In favor of null:  $\log_e(BF_{01}) = -54.54, r_{\text{Cauchy}} = 0.71$

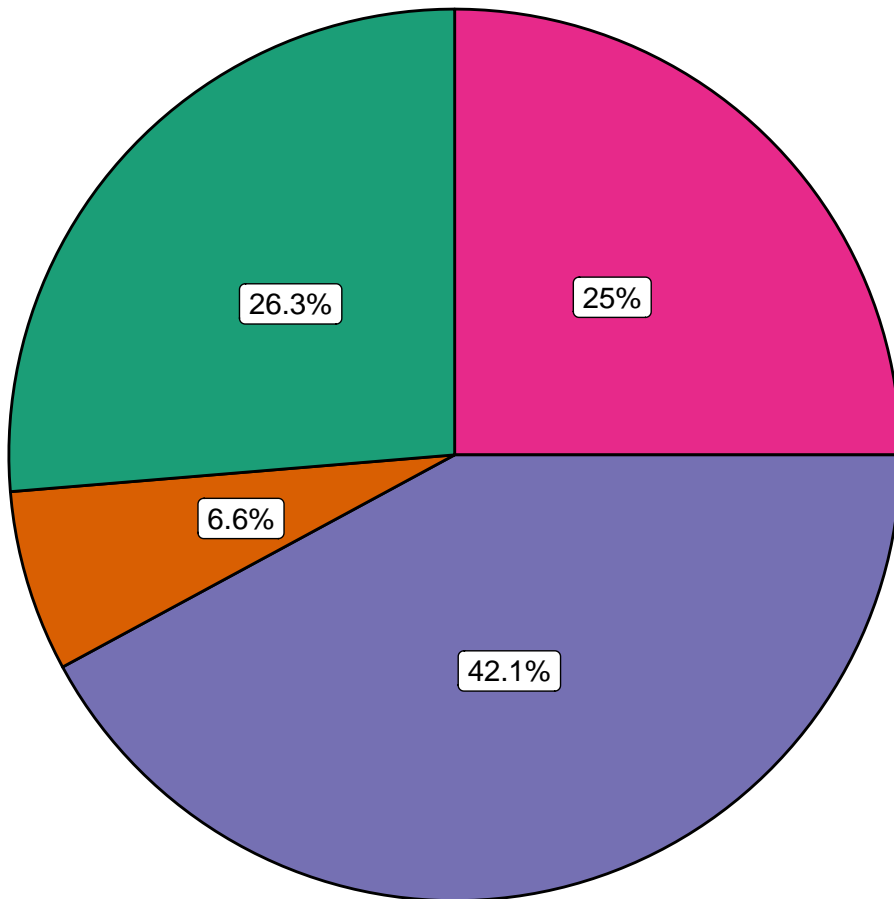
$t(149) = 42.05$ ,  $p = < 0.001$ ,  $g = 3.42$ ,  $CI_{95\%} [3.02, 3.86]$ ,  $n = 150$







Note: Iris dataset by Fisher.

In favor of null:  $\log_e(BF_{01}) = -186.14$ ,  $r_{\text{Cauchy}} = 0.80$

$\chi^2(3) = 19.263$ ,  $p = < 0.001$ ,  $V_{\text{Cramer}} = 0.291$ ,  $CI_{95\%} [0.181, 0.366]$ ,  $n = 76$

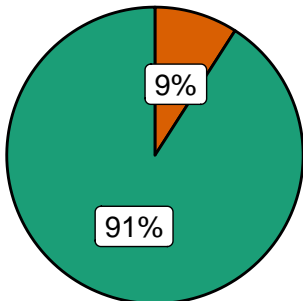


**vore**  omni  insecti  herbi  carni

$\chi^2(2) = 21.34$ ,  $p = < 0.001$ ,  $V_{\text{Cramer}} = 0.82$ ,  $CI_{95\%} [0.46, 0.62]$ ,  $n = 32$

**cyl: 4**

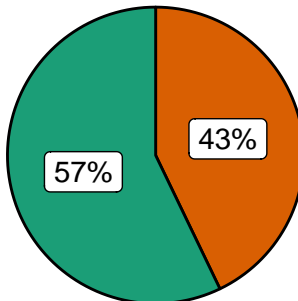
**\*\***



(n = 11)

**cyl: 6**

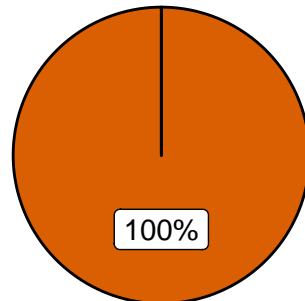
**ns**



(n = 7)

**cyl: 8**

**\*\*\***

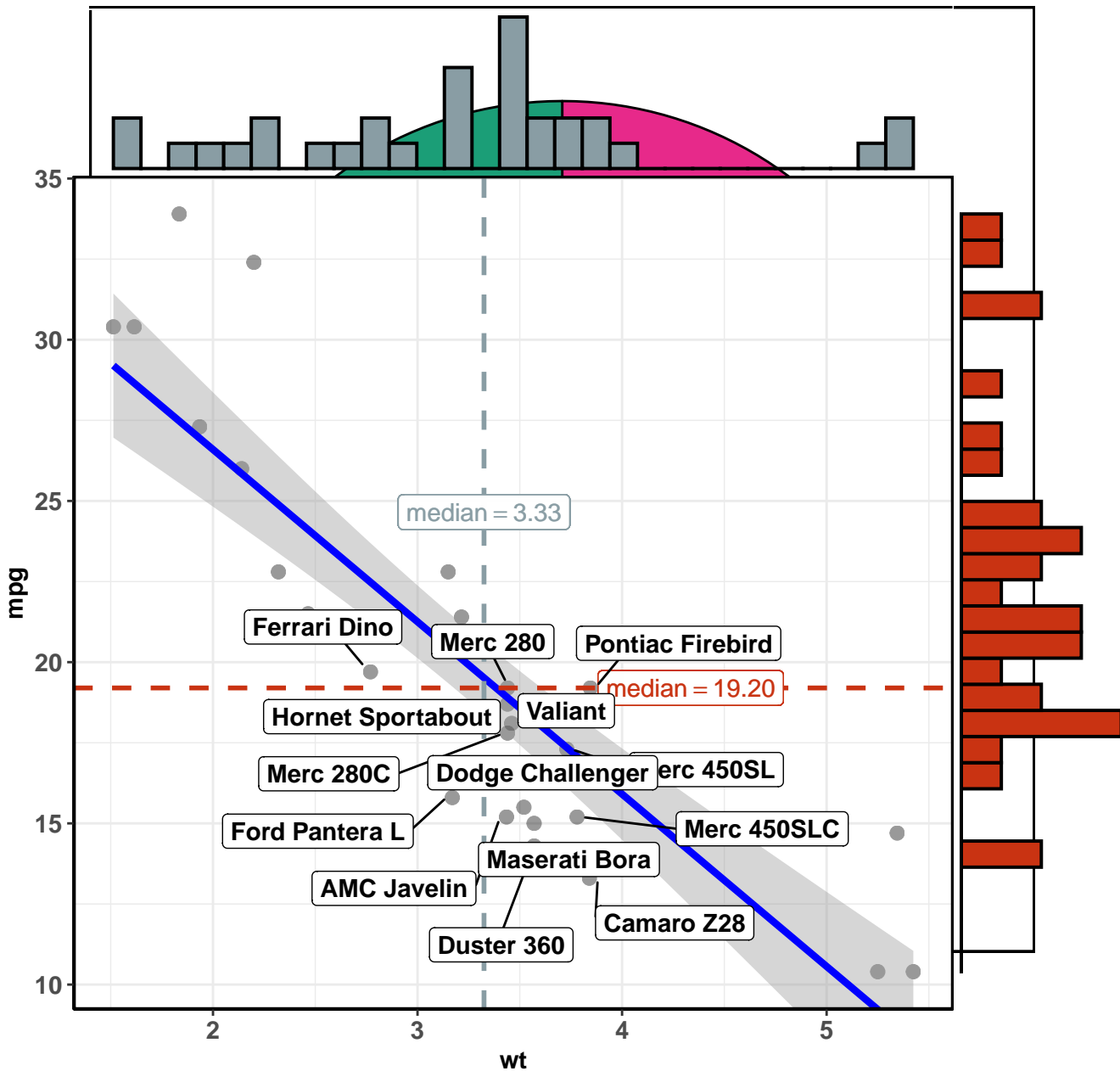


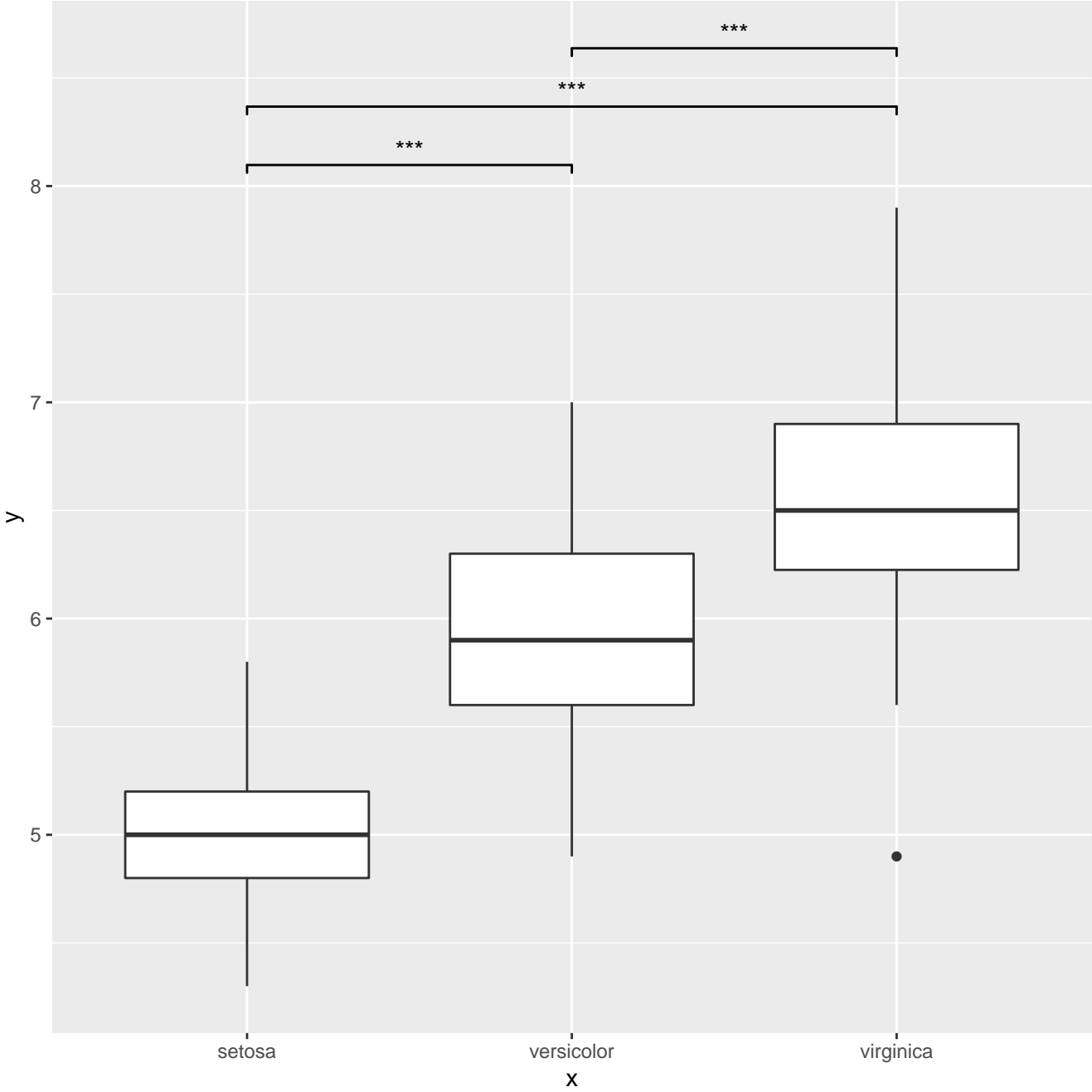
(n = 14)

**Engine**  0 = V-shaped  1 = straight

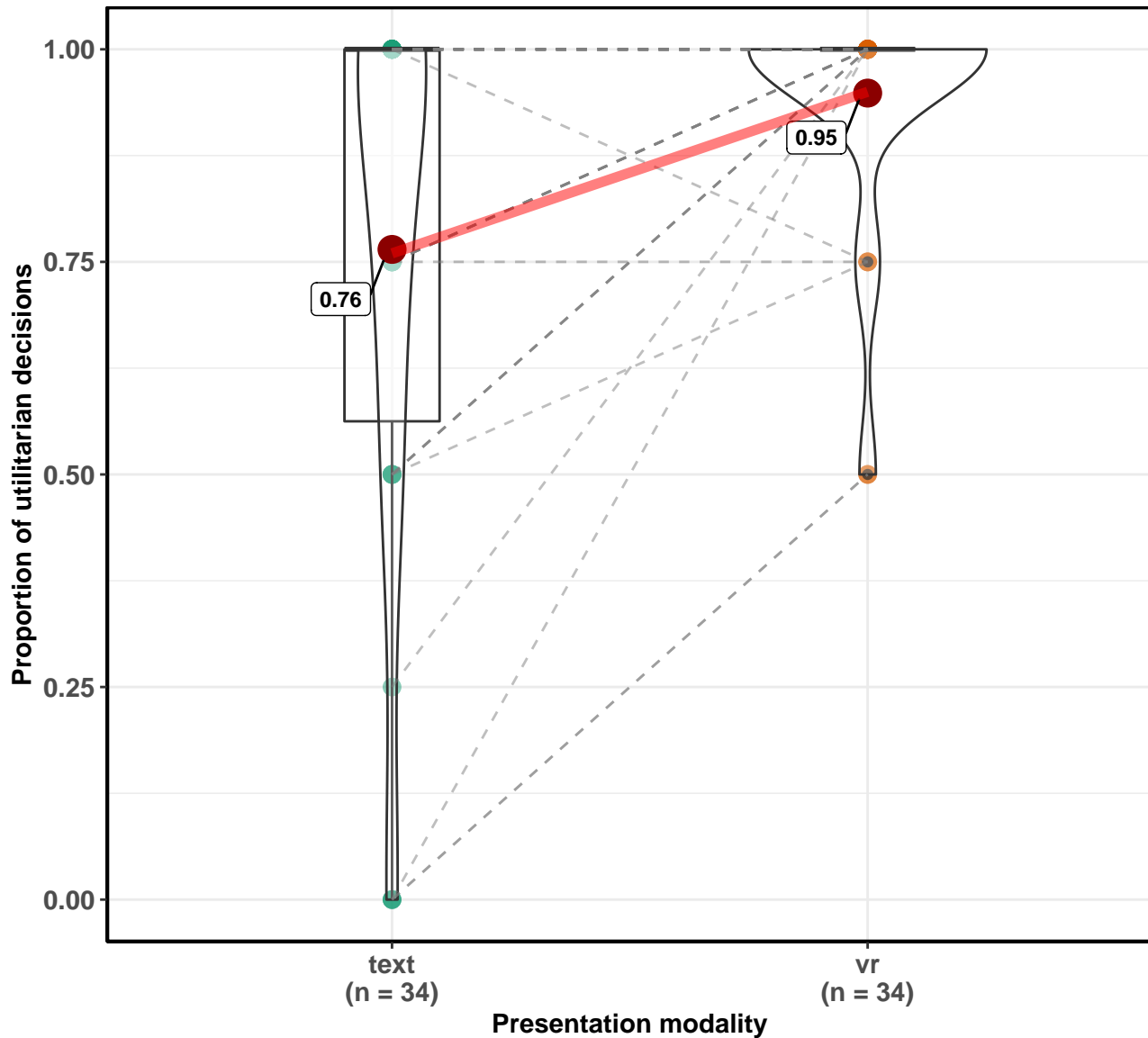
In favor of null:  $\log_e(BF_{01}) = -10.31$ , sampling = independent multinomial,  $a = 1.00$

$\log_e(S) = 9.24, p = < 0.001, \rho_{\text{Spearman}} = -0.89, \text{CI}_{95\%} [-0.94, -0.78], n = 32$   
 $\chi^2(3) = 133.47, p = < 0.001, v_{\text{Cramer}} = 0.27, \text{CI}_{95\%} [0.23, 0.31], n = 592$



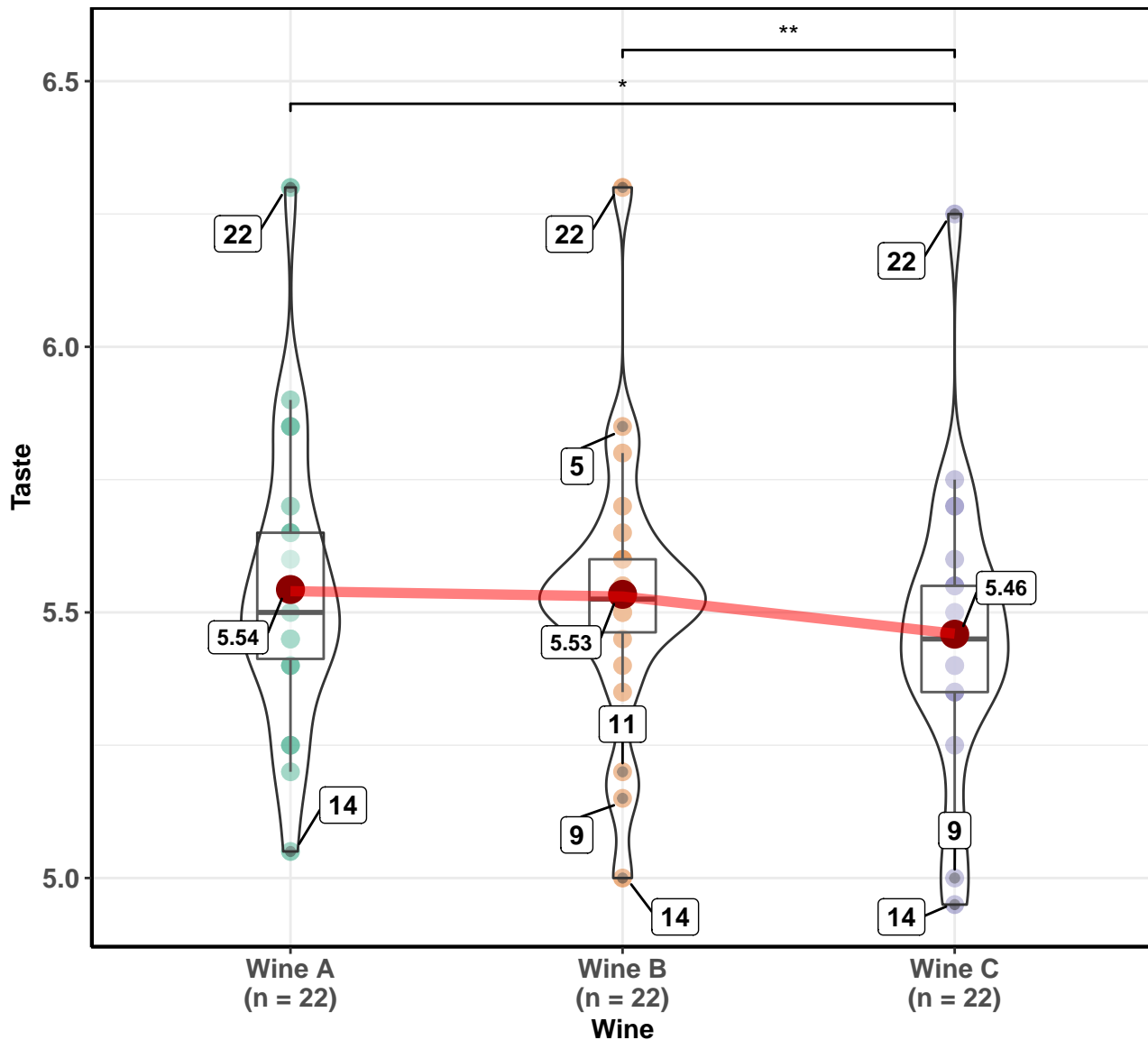


$t(33) = -3.96, p = < 0.001, g = -0.66, CI_{95\%} [-1.07, -0.31], n = 34$



In favor of null:  $\log_e(BF_{01}) = -4.34, r_{\text{Cauchy}} = 0.71$

$F(1.65, 27.97) = 4.06, p = 0.035, n = 22$

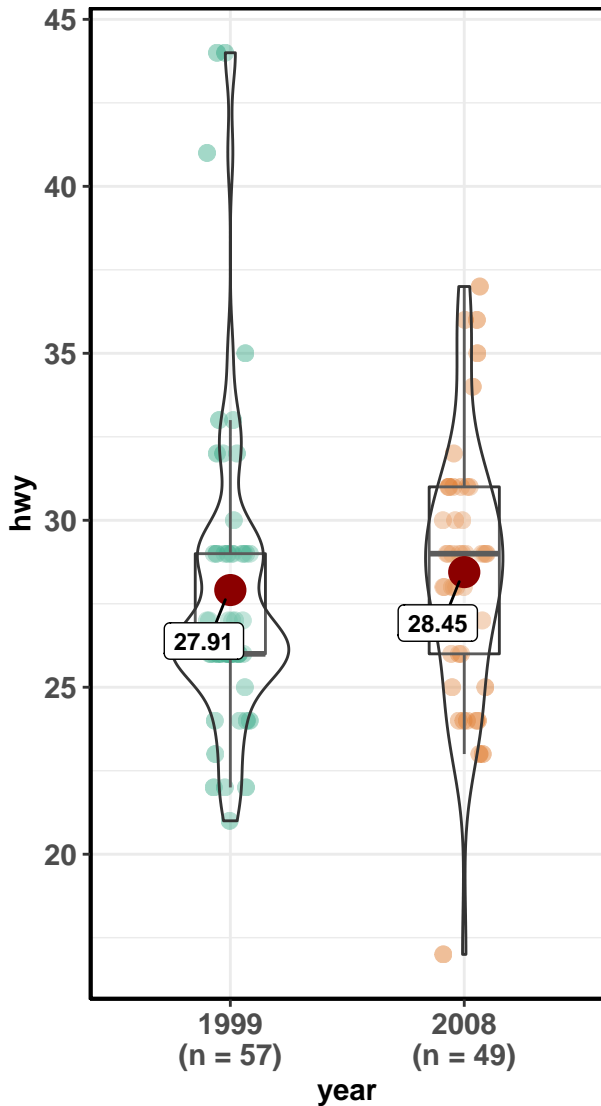


Pairwise comparisons: **Yuen's trimmed means test**; Adjustment (p-value): **Holm**



drv: f

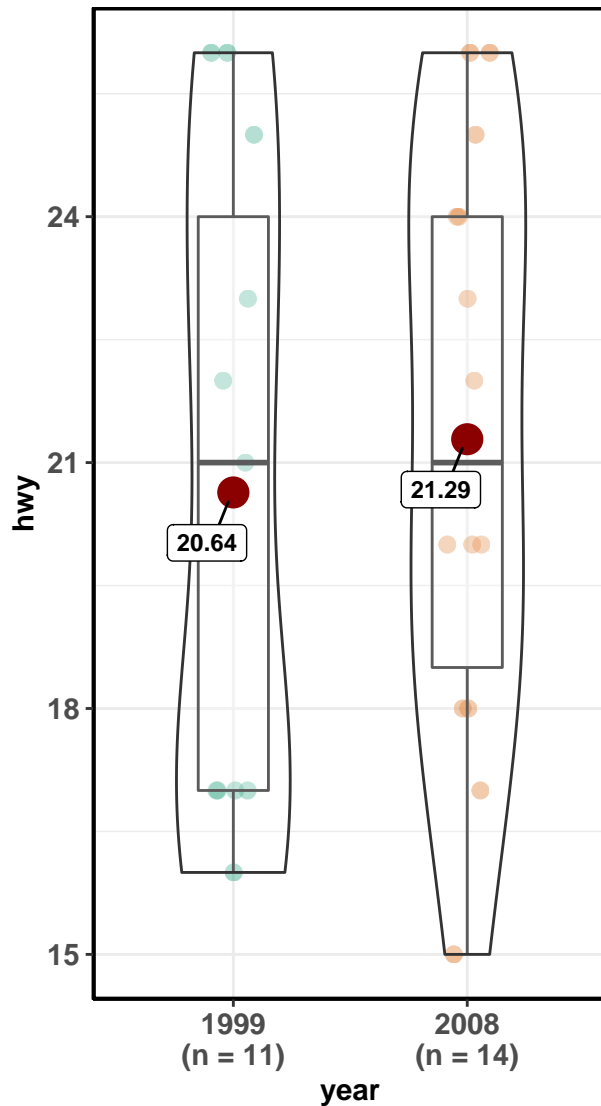
$t(20.71) = -0.66, p = 0.509, g = -0.13, CI_{99\%} [-0.63, 0.19]$



In favor of null:  $\log_e(BF_{01}) = 1.39, r_{\text{Cauchy}} = 0.71$

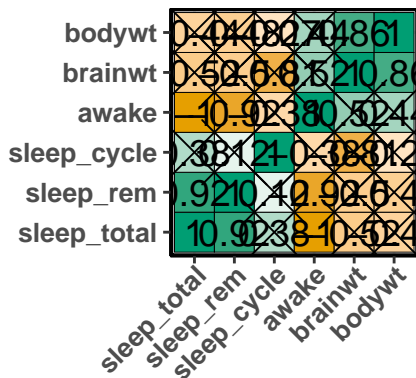
drv: r

$t(21.19) = -0.43, p = 0.675, g = -0.17, CI_{99\%} [-1.21, 0.8]$



In favor of null:  $\log_e(BF_{01}) = 0.93, r_{\text{Cauchy}} = 0.71$

### vore: carni

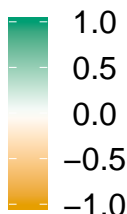


sample size:

$n_{\min} = 4$   
 $n_{\text{median}} = 9$   
 $n_{\max} = 19$

correlation:

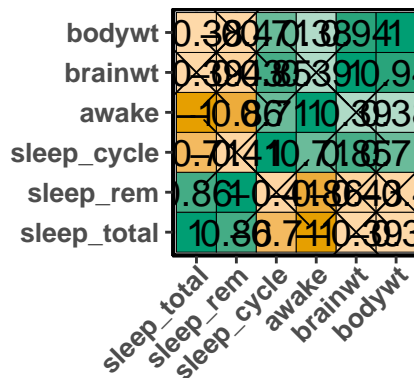
Pearson



X = correlation non-significant at  $p < 0.05$

Adjustment (p-value): None

### vore: herbi

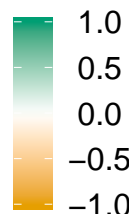


sample size:

$n_{\min} = 11$   
 $n_{\text{median}} = 20$   
 $n_{\max} = 32$

correlation:

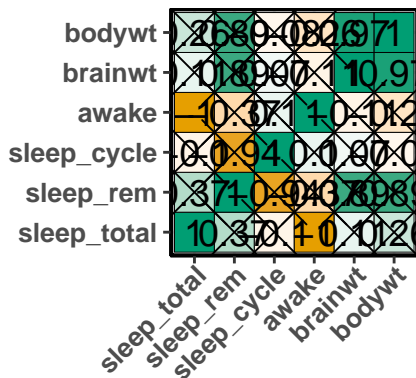
Pearson



X = correlation non-significant at  $p < 0.05$

Adjustment (p-value): None

### vore: insecti

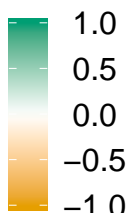


sample size:

$n_{\min} = 3$   
 $n_{\text{median}} = 4$   
 $n_{\max} = 5$

correlation:

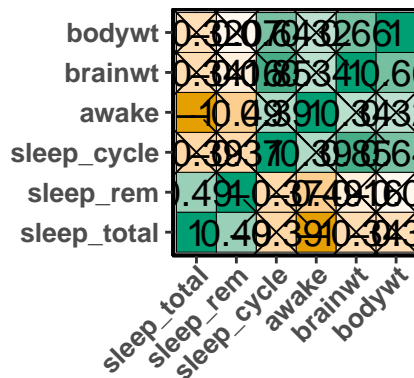
Pearson



X = correlation non-significant at  $p < 0.05$

Adjustment (p-value): None

### vore: omni



sample size:

$n_{\min} = 11$   
 $n_{\text{median}} = 17$   
 $n_{\max} = 20$

correlation:

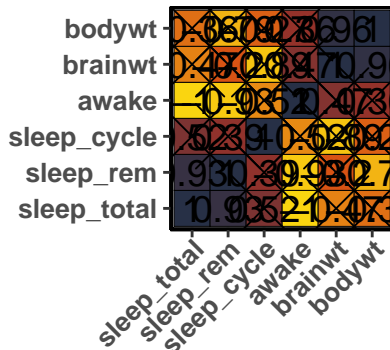
Pearson



X = correlation non-significant at  $p < 0.05$

Adjustment (p-value): None

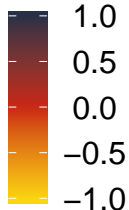
### vore: carni



sample size:

$n_{\min} = 4$   
 $n_{\text{median}} = 9$   
 $n_{\max} = 19$

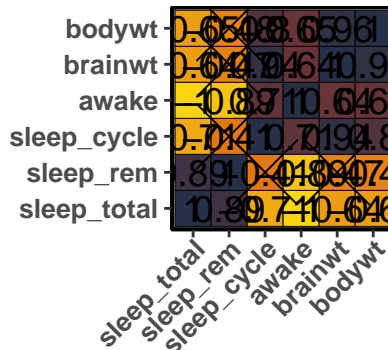
correlation:  
 robust (% bend)



= correlation non-significant at  $p < 0.05$

Adjustment (p-value): Holm

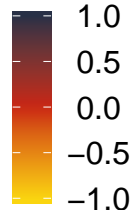
### vore: herbi



sample size:

$n_{\min} = 11$   
 $n_{\text{median}} = 20$   
 $n_{\max} = 32$

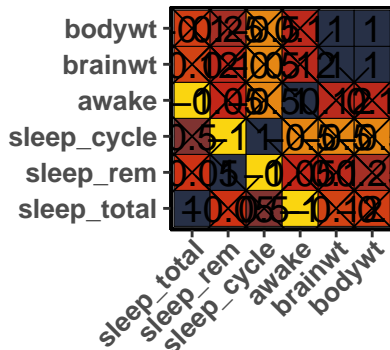
correlation:  
 robust (% bend)



**X** = correlation non-significant at  $p < 0.05$

Adjustment (p-value): Holm

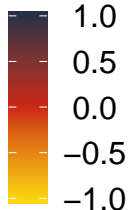
### vore: insecti



sample size:

$n_{\min} = 3$   
 $n_{\text{median}} = 4$   
 $n_{\max} = 5$

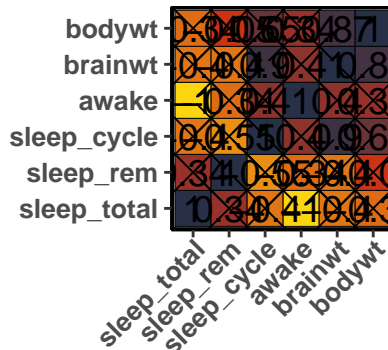
correlation:  
 robust (% bend)



= correlation non-significant at  $p < 0.05$

Adjustment (p-value): Holm

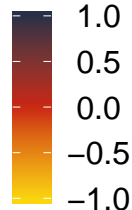
### vore: omni



sample size:

$n_{\min} = 11$   
 $n_{\text{median}} = 17$   
 $n_{\max} = 20$

correlation:  
 robust (% bend)

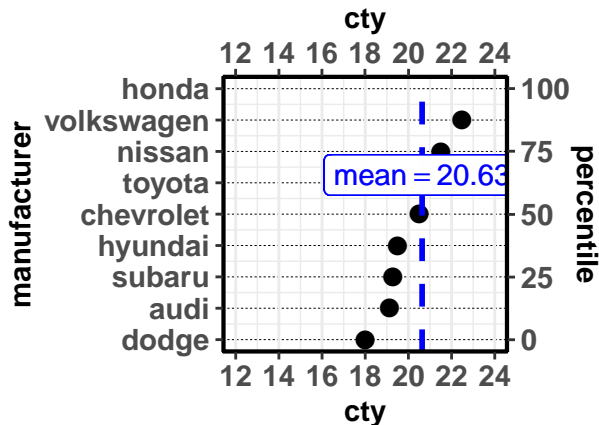


**X** = correlation non-significant at  $p < 0.05$

Adjustment (p-value): Holm

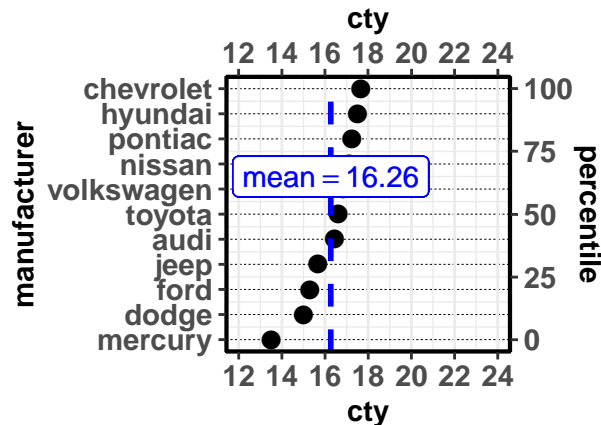
### cylinder count: 4

$t(8) = 7.82, p = < 0.001, g = 2.32, CI_{95\%} [1.25, 4.25]$   $t(10) = 1.99, p = 0.075, g = 0.55, CI_{95\%} [-0.06, 1.29]$



In favor of null:  $\log_e(BF_{01}) = -6.20, r_{\text{Cauchy}} = 0.71$

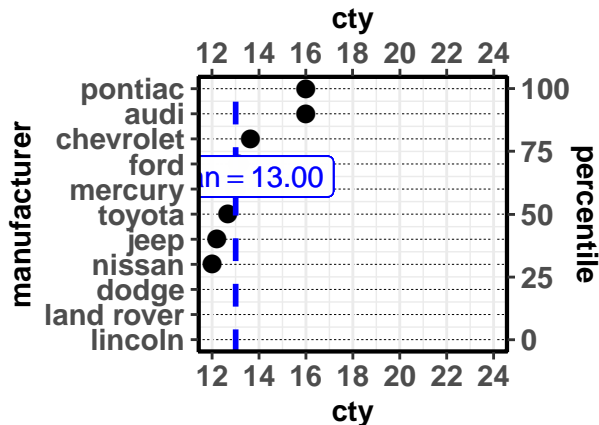
### cylinder count: 6



In favor of null:  $\log_e(BF_{01}) = -0.23, r_{\text{Cauchy}} = 0.71$

### cylinder count: 8

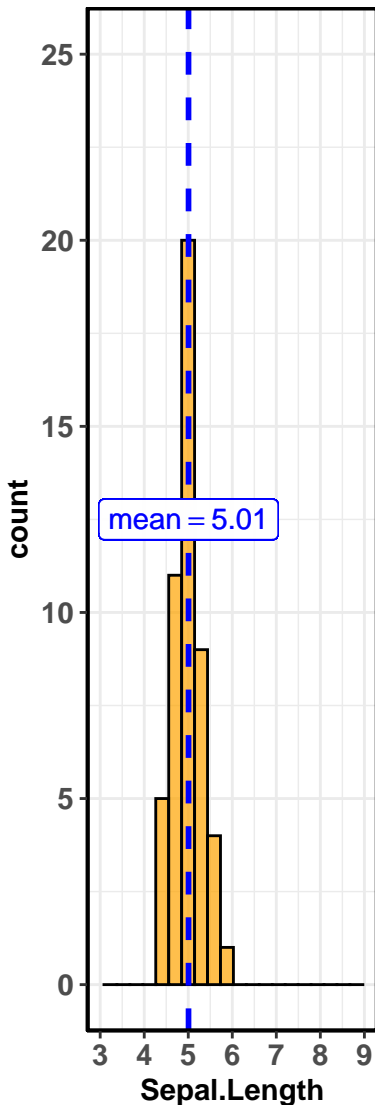
$t(8) = -5.01, p = 0.001, g = -1.38, CI_{95\%} [-2.49, -0.64], n = 11$



In favor of null:  $\log_e(BF_{01}) = -4.24, r_{\text{Cauchy}} = 0.71$

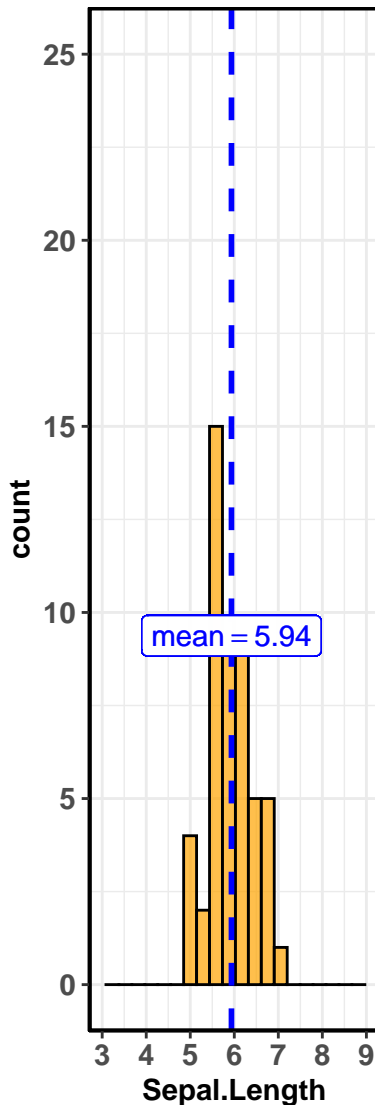
### Species: setosa

12,  $p = 0.905$ ,  $g = 0.02$ ,  $CI_{95\%} = [-10.22, 10.22]$



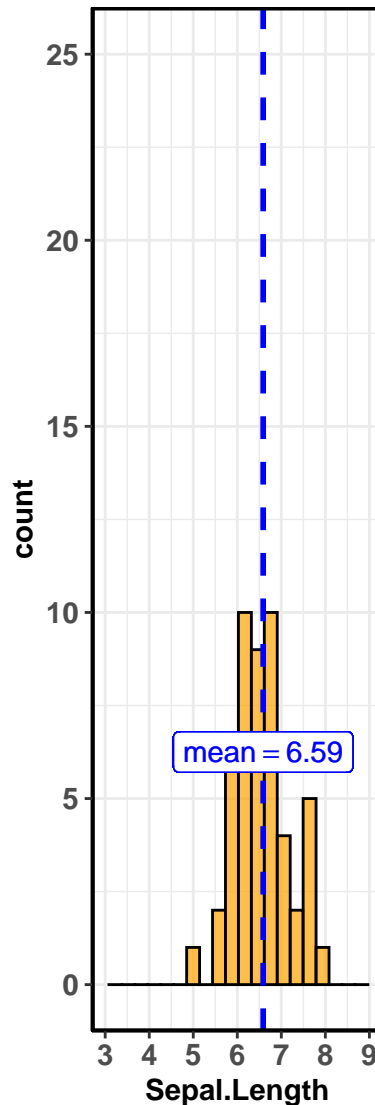
### Species: versicolor

12,  $p = < 0.001$ ,  $g = 1.78$ ,  $CI_{95\%} = [1.66, 1.91]$



### Species: virginica

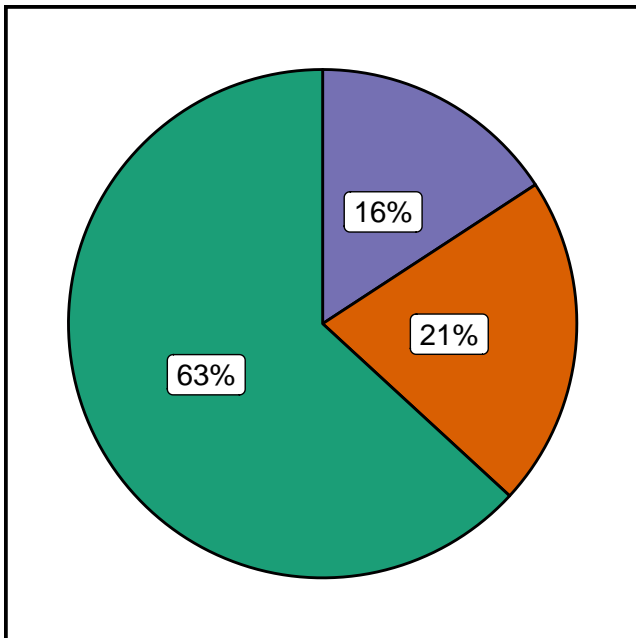
12,  $p = < 0.001$ ,  $g = 2.46$ ,  $CI_{95\%} = [2.32, 2.60]$



of null:  $\log_e(BF_{01}) = 1.86$ ,  $r_{Cauchy} = 0.71$  of null:  $\log_e(BF_{01}) = -32.95$ ,  $r_{Cauchy} = 0.71$  of null:  $\log_e(BF_{01}) = -45.50$ ,  $r_{Cauchy} = 0.71$

am: 0

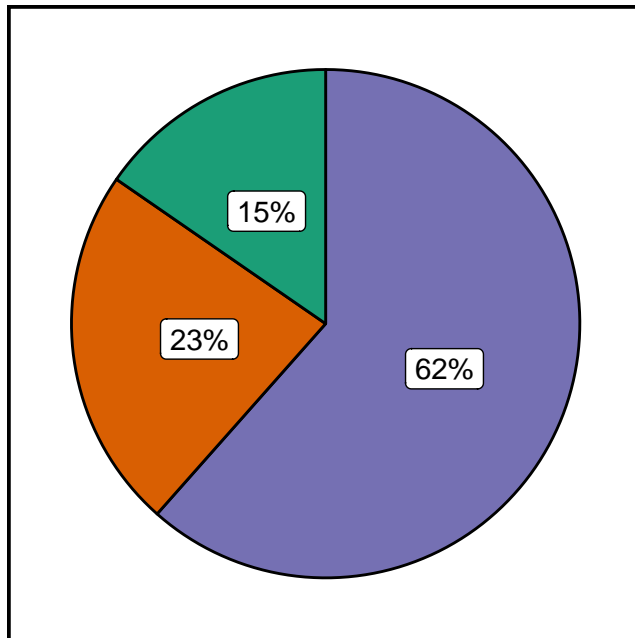
$\chi^2(2) = 7.68, p = 0.021, V_{\text{Cramer}} = 0.45, \text{CI}_{95\%} [0.05, 0.77]$



cyl  8  6  4

am: 1

$\chi^2(2) = 4.77, p = 0.092, V_{\text{Cramer}} = 0.43, \text{CI}_{95\%} [0.05, 0.72], n = 10$

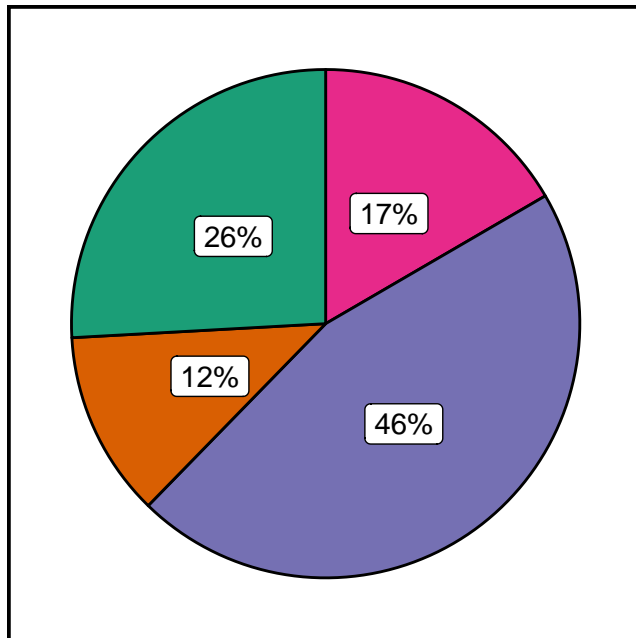
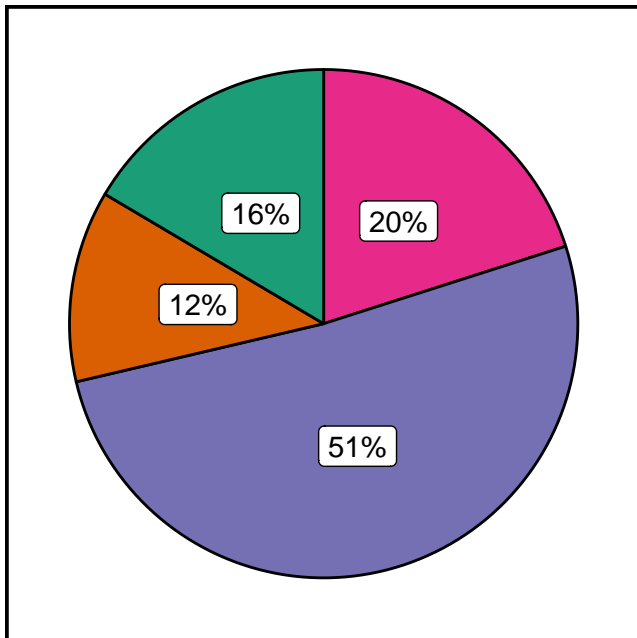










cyl  8  6  4

**Sex: Male**

**Sex: Female**

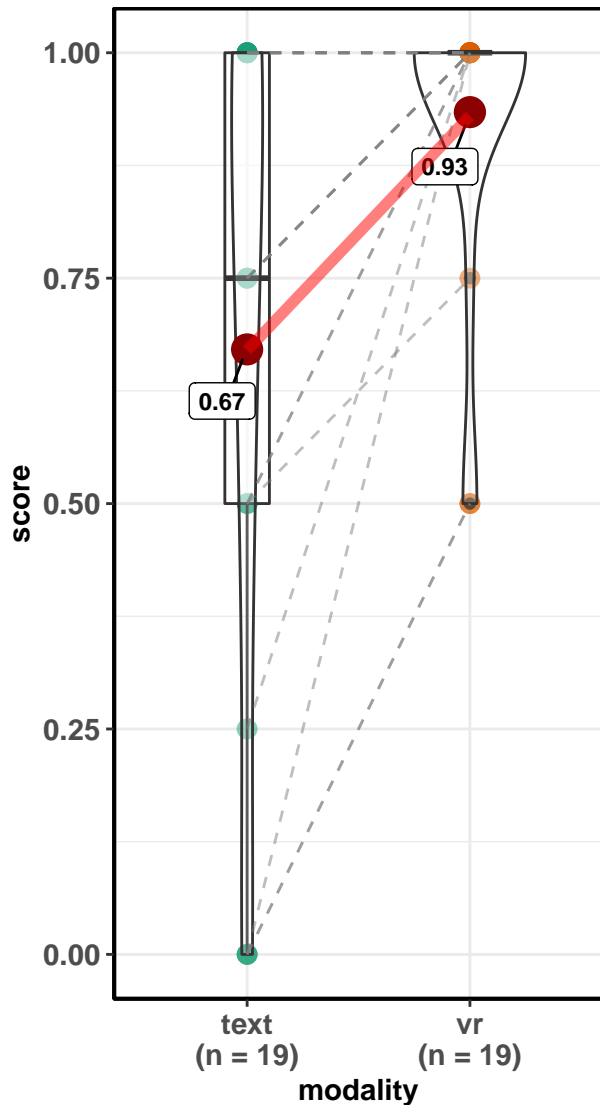
$\chi^2 = 106.05, p = < 0.001, V_{\text{Cramer}} = 0.36, \text{CI}_{95\%} [0.28, 0.44]$   $\chi^2 = 84.23, p = < 0.001, V_{\text{Cramer}} = 0.30, \text{CI}_{95\%} [0.23, 0.36], n = 43$



**Hair**  Blond  Red  Brown  Black **Hair**  Blond  Red  Brown  Black

**order: 0**

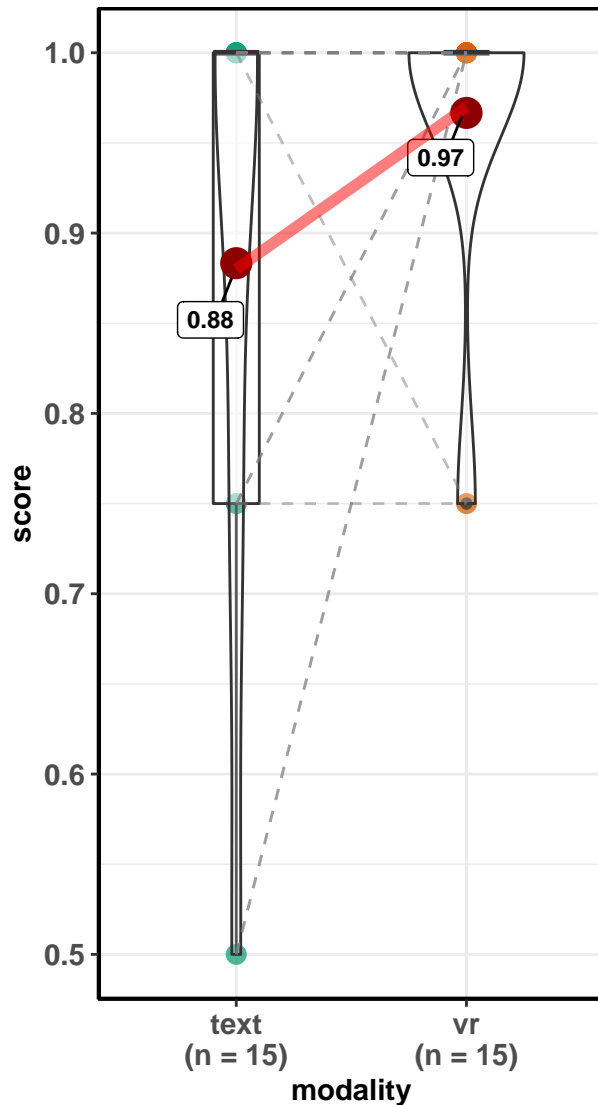
$18) = -3.90, p = 0.001, g = -0.85, CI_{95\%} [-1.46, -0.14]$



In favor of null:  $\log_e(BF_{01}) = -3.56, r_{\text{Cauchy}} = 0.71$

**order: 1**

$14) = -1.58, p = 0.136, g = -0.38, CI_{95\%} [-0.96, 0.13]$



In favor of null:  $\log_e(BF_{01}) = 0.32, r_{\text{Cauchy}} = 0.71$



