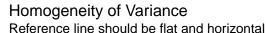
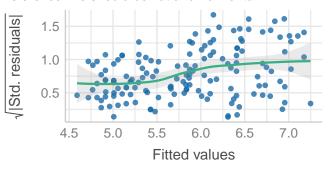
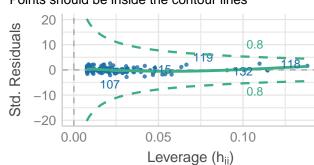
#### Posterior Predictive Check Linearity Model-predicted lines should resemble observed data li Reference line should be flat and horizontal 1.0 0.4 Residuals 0.5 Density 0.3 0.0 0.2 -0.50.1 -1.00.0 4.5 5.0 5.5 6.0 6.5 7.0 Sepal.Length Fitted values Observed data — Model-predicted data

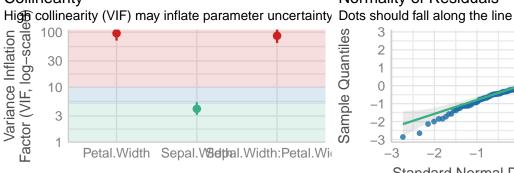




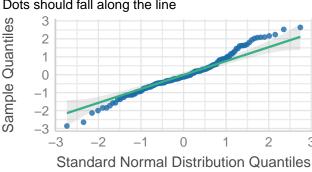
## Influential Observations Points should be inside the contour lines



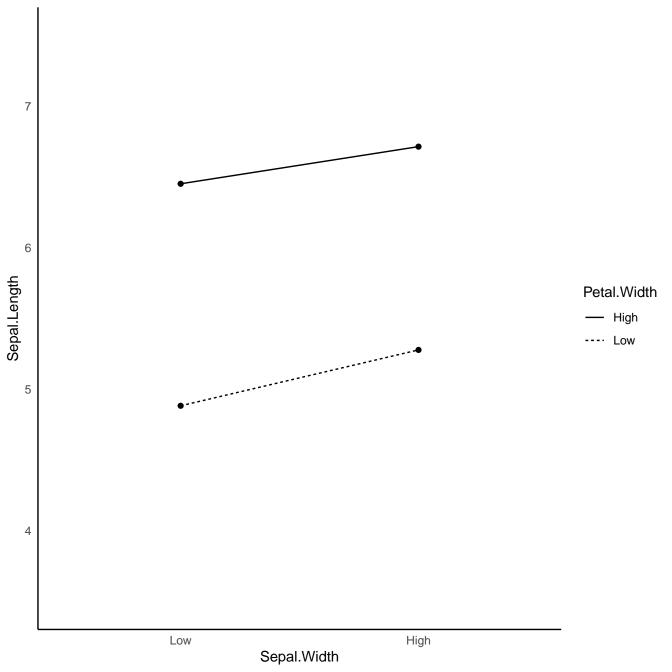
### Collinearity

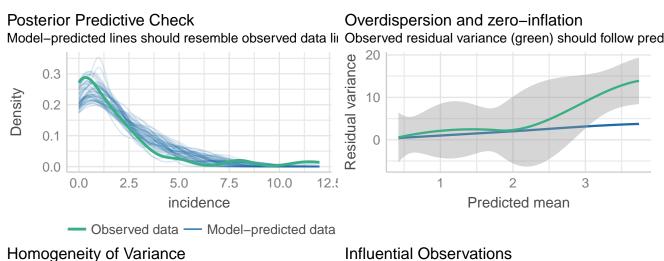


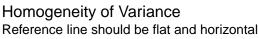
# Normality of Residuals

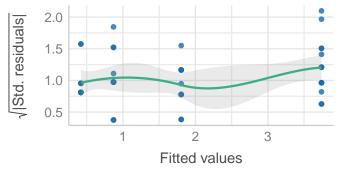


Low (< 5) High (... 10)

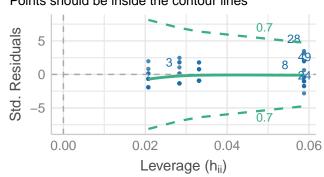




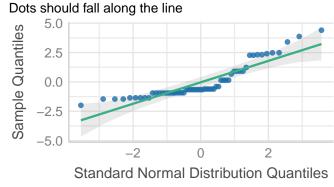




# Points should be inside the contour lines

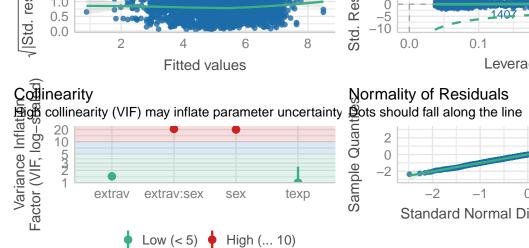


# Normality of Residuals

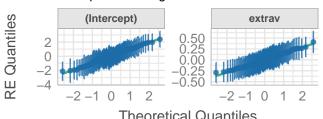


### Posterior Predictive Check Linearity Model-predicted lines should resemble observed data li Reference line should be flat and horizontal 0.3 Residuals Density 0.2 0.1 0.0 3 2 popular Fitted values Observed data — Model-predicted data Homogeneity of Variance Influential Observations Reference line should be flat and horizontal 1.5 0.5 0.0 2 4 6 Points should be inside the contour lines 10 1345 527 868 27 1345 527 868 1407 315 0 0.0 0.1 0.2 0.9 0.3 Leverage (h<sub>ii</sub>)

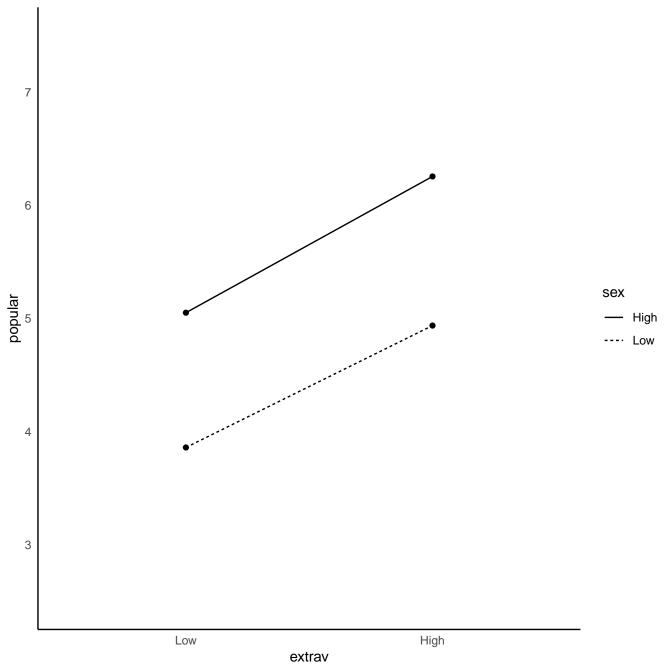
() Standard Normal Distribution Quantiles



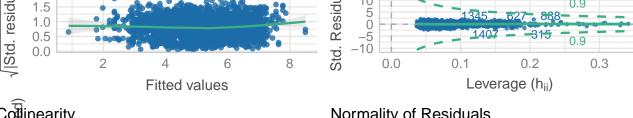
# Normality of Random Effects (class) Dots should be plotted along the line

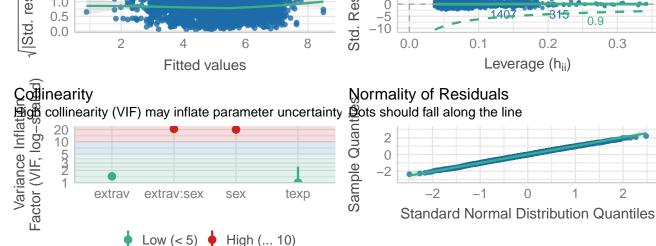


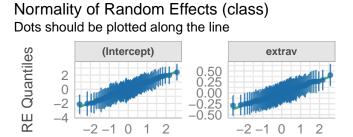
Theoretical Quantiles



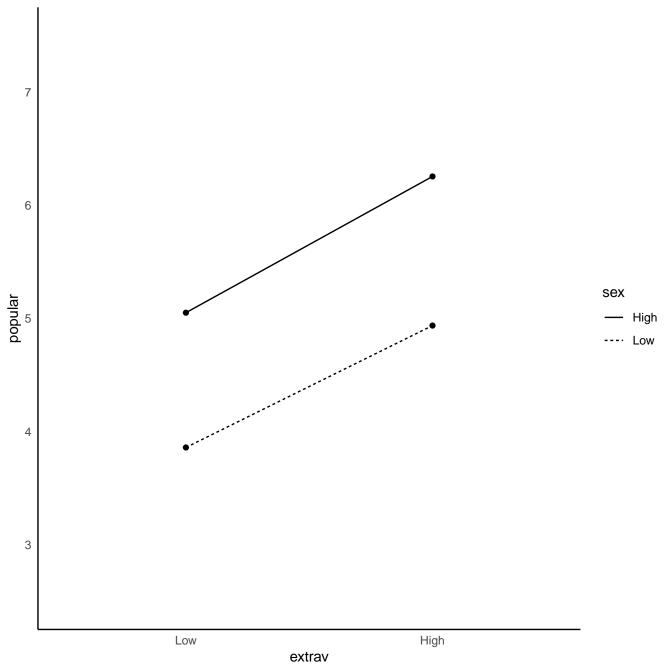
### Posterior Predictive Check Linearity Model-predicted lines should resemble observed data li Reference line should be flat and horizontal 0.3 Residuals Density 0.2 0.1 0.0 0.0 2.5 5.0 7.5 10.0 2 popular Fitted values Observed data — Model-predicted data Homogeneity of Variance Influential Observations Reference line should be flat and horizontal 1.5 1.0 0.5 0.0 2 4 6 Points should be inside the contour lines 10 1345 527 868 27 1345 527 868 1407 315 0 0.0 0.1 0.2 0.9 0.3

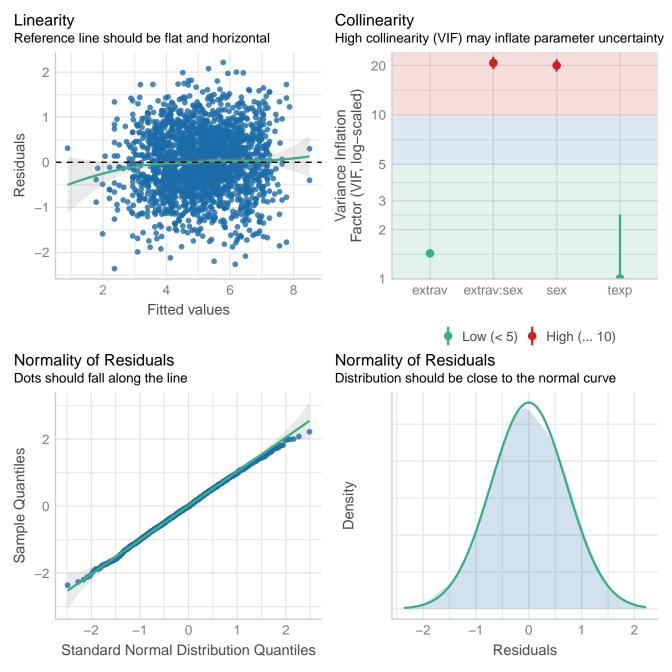


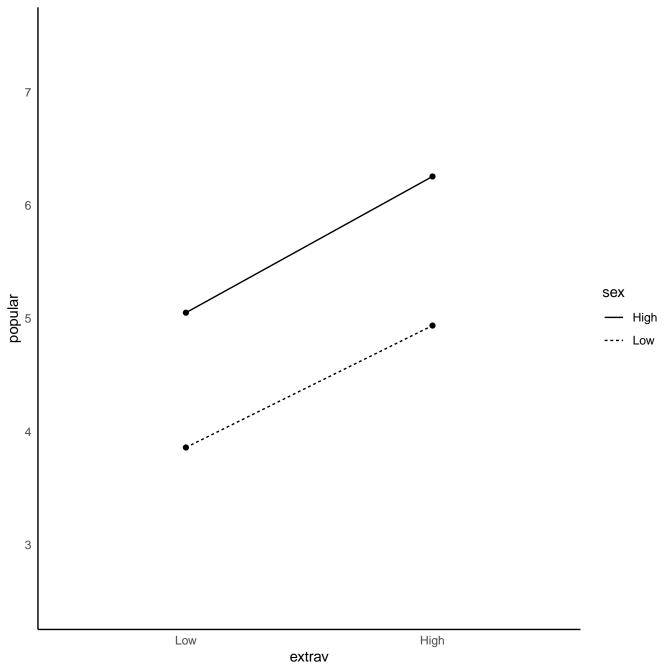




Theoretical Quantiles

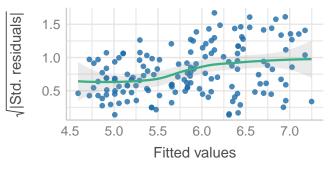




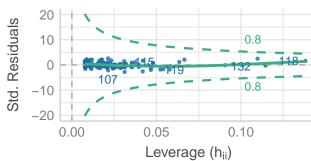


#### Posterior Predictive Check Linearity Model-predicted lines should resemble observed data li Reference line should be flat and horizontal 0.5 1.0 0.4 Residuals 0.5 Density 0.3 0.0 0.2 -0.50.1 -1.00.0 4.5 5.0 5.5 6.0 6.5 7.0 Sepal.Length Fitted values Observed data - Model-predicted data

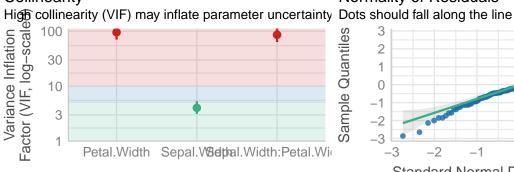
### Homogeneity of Variance Reference line should be flat and horizontal



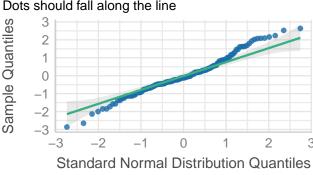
## Influential Observations Points should be inside the contour lines



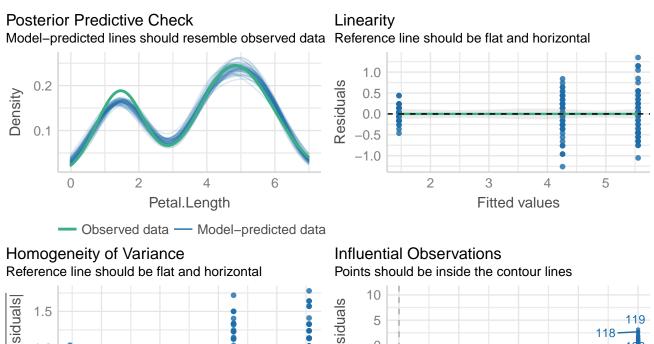
### Collinearity

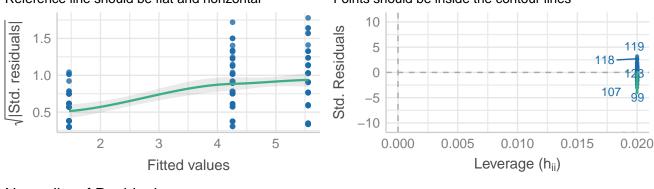


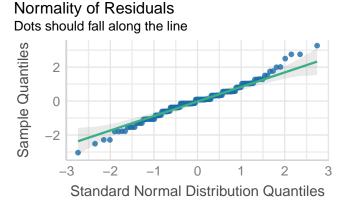
# Normality of Residuals

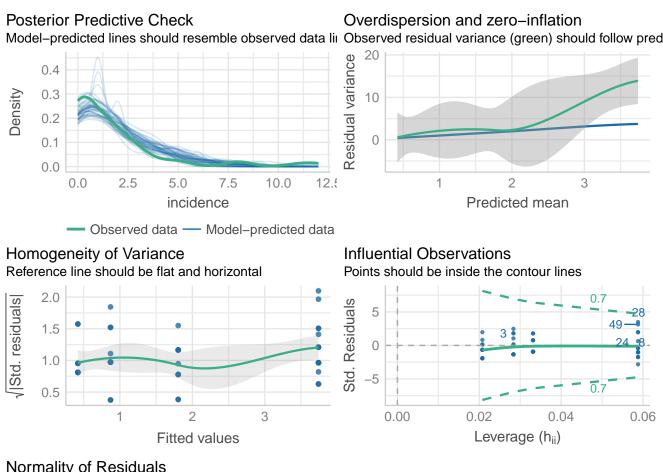


Low (< 5) High (... 10)

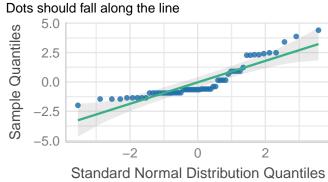


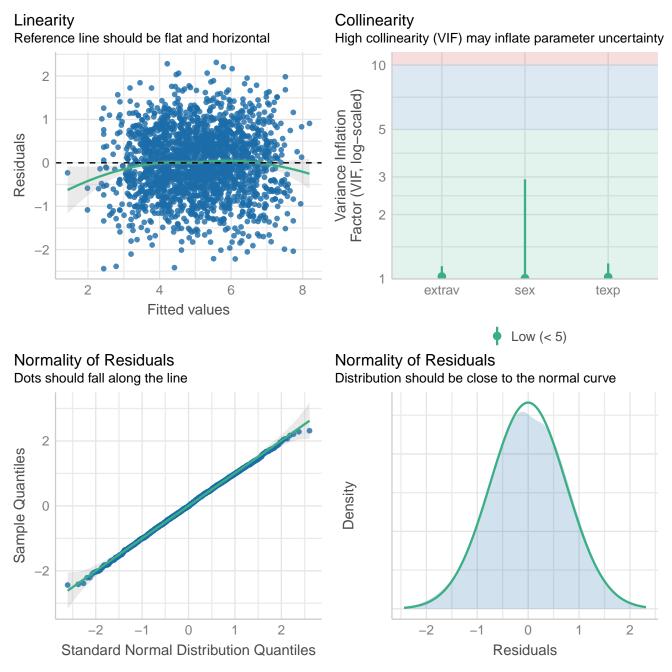




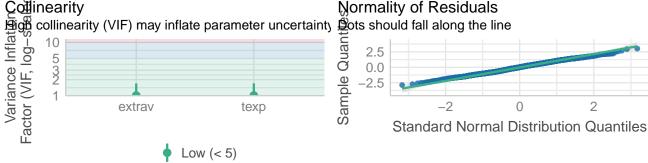


# Normality of Residuals

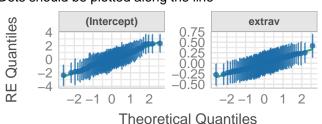




# Posterior Predictive Check Linearity Model-predicted lines should resemble observed data I Reference line should be flat and horizontal Residuals 0.3 Density 0.2 0.1 0.0 8 Fitted values popular Observed data — Model-predicted data Homogeneity of Variance Influential Observations Reference line should be flat and horizontal 1.5 1.0 0.5 0.0 2 4 6 Region Collinearity Solution Collinearity Solution Collinearity Solution Collinearity Solution Collinearity Englinearity Solution Collinearity Solution Collinearity Englinearity Englinearity Solution Collinearity Englinearity Englinea 0.3 Leverage (h<sub>ii</sub>)



### Normality of Random Effects (class) Dots should be plotted along the line



# Posterior Predictive Check Linearity Model-predicted lines should resemble observed data I Reference line should be flat and horizontal Residuals 0.3 Density 0.2 0.1 0.0 Fitted values popular Observed data — Model-predicted data Homogeneity of Variance Influential Observations Reference line should be flat and horizontal 1.5 1.0 0.5 0.0 2 4 6 Points should be inside the contour lines 888 0 1/52 315 0 0 0.0 0.1 0.2 Region Collinearity Solution Collinearity Solution Collinearity Solution Collinearity Solution Collinearity Englinearity Solution Collinearity Solution Collinearity Englinearity Englinearity Solution Collinearity Englinearity Englinea Leverage (h<sub>ii</sub>) Factor (VIF, log-

0.3

Standard Normal Distribution Quantiles



