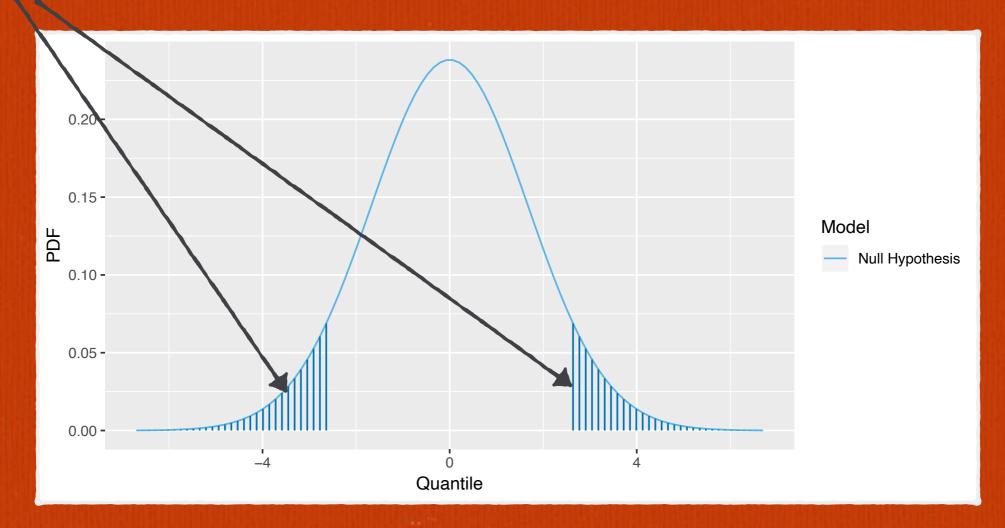
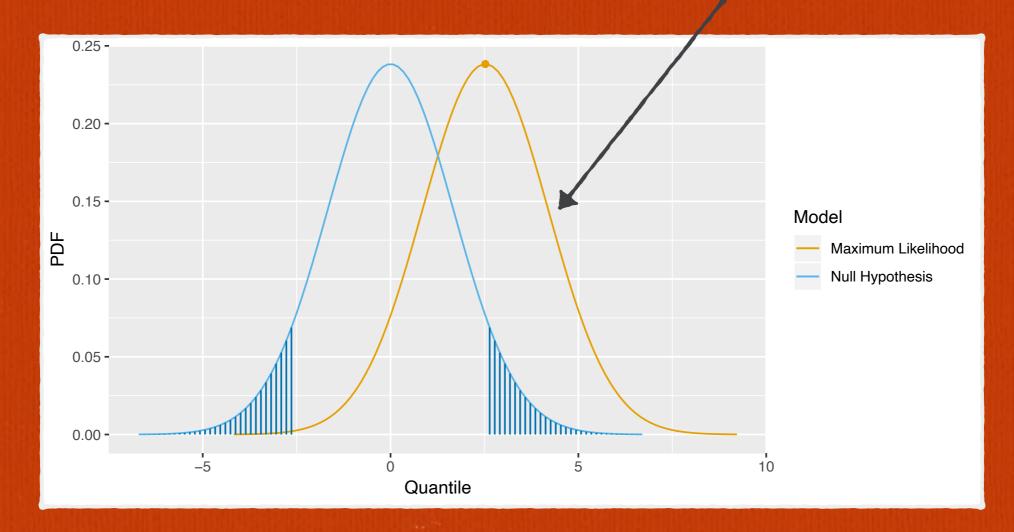
$$p\left(\left|y\right| > \widehat{\mu} \mid \mu_0 = 0, \sigma^2 = \widehat{\sigma}^2\right)$$



Probability vs Likelihood

We determine a p-value by integrating the area corresponding to values extreme than the maximum likelihood estimate

$$f(y | \mu_1 = \hat{\mu}, \sigma^2 = \hat{\sigma}^2)$$



Probability vs Likelihood

We can also calculate PDF values centered on the maximum likelihood estimate of the mean.