

So what to do?

- In this example, all three analyses told basically the same story - there is an effect in our interaction term. They differ in terms of the value of the t-statistic associated with testing this.
- It's an issue - but if each possible way of analysing the data (incl. log transform and GLMM under the Gamma distribution) produces the same story, probably don't need to worry too much.
- Key is to be transparent in the write-up (did you transform the data? If so, how? What distribution do you assume your data come from?). **Most importantly, publicly archive your data and analysis code so it can be examined by others.**

Determining the likely distribution of our data

- We can use the function `descdist` from the package `fitdistrplus` to plot any set of data on a Cullen and Frey graph - this will help us determine what known distribution of data our data match.
- First, I'm going to create some data drawn from the normal distribution and plot that sample...