Why ANOVA, why not t-tests?

- So, t-tests are fine if we're just comparing two means.

- In the real world of psychology, we often have more than two conditions.

- How could we analyse our data ?

- One possibility could be that we do multiple t-tests – but there's a problem with that.

- With one t-test, at $p < 0.05$ level of significance there is a 5% chance of falsely rejecting our null hypothesis (type I error).

- If we have three conditions, then we have three pairs of means to compare (condition 1 vs condition 2, condition 2 vs condition 3 and condition 1 vs condition 3).