

## CHAPTER OVERVIEW

### 8: Repeated Measures ANOVA

This chapter introduces you to **repeated measures ANOVA**. Repeated measures ANOVAs are very common in Psychology, because psychologists often use repeated measures designs, and repeated measures ANOVAs are the appropriate test for making inferences about repeated measures designs.

Remember the paired sample  $t$ -test? We used that test to compare two means from a repeated measures design. Remember what a repeated measures design is? It's also called a within-subjects design. These designs involve measuring the same subject more than once. Specifically, at least once for every experimental condition. In the paired  $t$ -test example, we discussed a simple experiment with only two experimental conditions. There, each subject would contribute a measurement to level one and level two of the design.

However, paired-samples  $t$ -tests are limited to comparing two means. What if you had a design that had more than two experimental conditions? For example, perhaps your experiment had 3 levels for the independent variable, and each subject contributed data to each of the three levels?

This is starting to sound like an ANOVA problem. ANOVAs are capable of evaluating whether there is a difference between any number of means, two or greater. So, we can use an ANOVA for our repeated measures design with three levels for the independent variable.

Great! So, what makes a repeated measures ANOVA different from the ANOVA we just talked about?

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