Chapter 15: Mixed design ANOVA

Self-test answers

SELF-TEST What is the difference between a main effect and an interaction?

A main effect is the unique effect of a *predictor variable* (or *independent variable*) on an *outcome variable*. In this context it can be the effect of gender, charisma or looks on their own. So, in the case of gender, the main effect is the difference between the average score of all men (irrespective of the type of date they were rating) and all women (irrespective of the type of date that they are rating). The main effect of looks would be the mean rating given to all attractive dates (irrespective of their charisma, or whether they were rated by a man or a woman), compared to the average rating given to all average-looking dates (irrespective of their charisma, or whether they were rated by a man or a woman) and the average rating of all ugly dates (irrespective of their charisma, or whether they were rated by a man or a woman). An interaction, on the other hand, looks at the *combined* effect of two or more variables: for example, were the average ratings of attractive, ugly and average-looking dates different in men and women?

SELF-TEST Was the assumption of homogeneity of variance met?

Yes, see the book chapter for details.