

4. Look at Figure 11.5, panel g. Interpret what this interaction means in plain English.

A: People who ate soup and who considered soup to be a comfort food completed more relationship words than people who ate soup but did not consider soup to be a comfort food. Among people who did not eat soup, there was no difference in the number of relationship words completed between people who considered soup to be a comfort food and people who did not consider soup to be a comfort food.

5. Look at Figure 11.5, panels a, b, c, and d. Why are these examples of main effects but not interactions?

A: In all four panels, the effects of one factor do not depend on the levels of the second factor. For instance, in panel a, among people who ate soup, there is no difference in the number of relationship words completed between people who did and did not consider soup to be a comfort food. Among people who did not eat soup, again, there is no difference in the number of relationship words completed between people who did and did not consider soup to be a comfort food. In other words, the effects of Soup Consumption on the number of relationship words completed have nothing to do with whether people considered soup to be a comfort food.

Notice that in all four panels that the lines for the levels of the factor Comfort Food Status of Soup are parallel to each other. When we see the lines for a factor being parallel, it indicates that there is not interaction. In a line graph, interaction is displayed with nonparallel lines. Of course, the only way we can ever know whether an interaction is statistically significant is to use the appropriate tool, which we will learn later in this chapter.

6. Look at Figure 11.5, panel c. Interpret what this main effect means in plain English.

A: Among people who ate soup, those who did not consider soup to be a comfort food completed more relationship words than those who considered soup to be a comfort food. Among people who did not eat soup, those who did not consider soup to be a comfort food completed more relationship words than those who considered soup to be a comfort food.

Notice the language to describe the two levels of the factor Comfort Food Status of Soup. They are the same. That's because the levels of this factor do not interact with the factor of Soup Consumption. In this example, the effects are the same for Soup Consumption no matter how people felt about soup as a comfort food.