Moderation in SPSS

Background

Moderation examines the extent to which the relationship between X and Y *changes* at various levels of a third variable, Z.

Basic Syntax

Moderation is always a multiplication problem. The basic syntax for examining whether Z moderates the effect of X on Y is:

```
mixed y with x z
/fixed=x z x*z
/print=solution.
```

For example, imagine that we want to predict whether gender ("male," coded 0 = female; 1 = male) moderates the effect of extraversion (called "e" in our dataset) on life satisfaction (called "ls" in our dataset). The regression would be:

```
mixed ls with e male
/fixed=e male e*male
/print=solution.
```

Interpreting Results

Regression coefficients *always* tell you *the extent to which Y increases as a function of X,* ***when all other variables in the model equal zero***.

Thus, imagine that you predict life satisfaction from `e + male + e*male`. Imagine that the coefficient for `e` is 0.50. This means that *for females* (i.e., when male = 0), each one unit increase in e predicts 0.50 units increase in life satisfaction.

Now, imagine that the coefficient for `e*male` is 0.25. This indicates that *for males*, each one unit increase in e predicts 0.75 units increase in life satisfaction (0.50 + 0.25).

Always remember that ***the coding on your variables matters***. Regression will ***always*** tell you the effect of X on Y ***when all other variables in the model equal zero***.