

Moderation in R: Exercises

To get the dataset for this exercise, install and load the **psychTools** package. The dataset we will use should be available and is called *epi.bfi*

Research Scenario

It has been suggested that the relationship between depression and neuroticism could be moderated by state anxiety. To test this hypothesis, we will run a moderation analysis.

Variables:

x = **epiNeur** (neuroticism score)

m = **stateanx** (state anxiety score)

y = **bdi** (depression score)

1. Install and load the *psychTools*, *gvlma*, *rockChalk* and **car** packages
2. Mean centre the **X** and **M** variables. Store the results as **Xc** and **Mc** and use these for future analysis
3. Run the moderation model and save it as **mod1**
4. Use the function *gvlma* to check the assumptions of the moderation model
5. Use the *plotSlopes* function to view the simple slopes of the moderation model. When you run this command, store the result as **slopes1**
6. Run the function *testSlopes* on your *slopes* variable and store the result as **testSlopes1**.
7. Run the plot command on **testSlopes1** to see where the moderation model becomes significant.
8. Bootstrap the moderation model and check the difference in confidence intervals