**Pease Replication part 3: testing interactions**

For this activity, you will replicate the method described in the following paragraphs:

*“To test our hypotheses concerning moderation we used a series of hierarchical linear regression models with anger styles and aggression as dependent variables. Big Five traits were entered in step 1, two-way interaction terms (neuroticism X agreeableness, neuroticism X conscientiousness, and conscientiousness X agreeableness) were entered in step 2, and the three-way interaction term (neuroticism X agreeableness X conscientiousness) was entered in step 3. Age and sex were included as covariates. Continuous predictor variables were mean centered, and interaction terms were created as the product of the relevant mean-centered variables. As above, we tested each of dependent variables in separate analyses.*

*Interactions were probed across values of moderator variables (±1SD from the mean) according to techniques described by Preacher, Curran, and Bauer (2003). Unstandardized coefficients are the preferred metric in moderation modelling (Hayes, 2008), and as such are reported here. A 2-way interaction was observed in which conscientiousness moderated neuroticism’s pathway to AX/C; such that the inverse relationship between neuroticism and AX/C was significantly more pronounced at lower levels of conscientiousness (see Fig. 1). Three 3-way interactions were observed in which conscientiousness moderated agreeableness’s influence on neuroticism’s pathway to T-Ang, the pathway to AX/Out, and the pathway to aggression (see Figs. 2–4).” Pg. 162*

This involves testing a series of three hierarchical models for each of the seven outcome variables (Trait Anger, Trait Anger: Angry Temperament, Trait Anger: Angry Reaction, Anger Expression: Anger-In, Anger Expression: Anger-Out, Anger Expression: Anger-Control, and Aggression). At the first level, the model only includes the Big 5 personality traits, as well as age and gender control variables. You have already completed this step in a previous Lab Activity. At the next level, two-way interaction terms are added to the model. At the third level, a three-way interaction term is added to the model. Be sure to use the mean-centered versions for all independent variables except Gender.

1. Insert a first level header: ***#Interaction models***
2. Insert a second-level header: ***##Trait Anger***
3. Insert a new code chunk
   1. Estimate a linear model that is assigned to an object called ***m1.2***
      1. DV: Trait Anger
      2. IV’s: Neuroticism, Agreeableness, Extraversion, Openness, Conscientiousness, Age, and Gender
      3. Two-way Interaction Terms: neuroticism X agreeableness, neuroticism X conscientiousness, and conscientiousness X agreeableness
      4. Data: ***analyze***
   2. Estimate a linear model that is assigned to an object called ***m1.3***
      1. DV: Trait Anger
      2. IV’s: Neuroticism, Agreeableness, Extraversion, Openness, Conscientiousness, Age, and Gender
      3. Two-way Interaction Terms: neuroticism X agreeableness, neuroticism X conscientiousness, and conscientiousness X agreeableness
      4. Three-way Interaction Terms: neuroticism X agreeableness X conscientiousness
      5. Data: ***analyze***
   3. Use the ***ols\_regress()*** function to get output for ***m2***, ***m2.2***, and ***m2.3***
4. Insert a second-level header: ***##Trait Anger: Angry Temperament***
5. Insert a new code chunk
   1. Estimate a linear model that is assigned to an object called ***m2.2***
      1. DV: Angry Temperament
      2. IV’s: Neuroticism, Agreeableness, Extraversion, Openness, Conscientiousness, Age, and Gender
      3. Two-way Interaction Terms: neuroticism X agreeableness, neuroticism X conscientiousness, and conscientiousness X agreeableness
      4. Data: ***analyze***
   2. Estimate a linear model that is assigned to an object called ***m2.3***
      1. DV: Angry Temperament
      2. IV’s: Neuroticism, Agreeableness, Extraversion, Openness, Conscientiousness, Age, and Gender
      3. Two-way Interaction Terms: neuroticism X agreeableness, neuroticism X conscientiousness, and conscientiousness X agreeableness
      4. Three-way Interaction Terms: neuroticism X agreeableness X conscientiousness
      5. Data: ***analyze***
   3. Use the ***ols\_regress()*** function to get output for ***m2***, ***m2.2***, and ***m2.3***
6. Insert a second-level header: ***##Trait Anger: Angry Reaction***
7. Insert a new code chunk
   1. Estimate a linear model that is assigned to an object called ***m3.2***
      1. DV: Angry Reaction
      2. IV’s: Neuroticism, Agreeableness, Extraversion, Openness, Conscientiousness, Age, and Gender
      3. Two-way Interaction Terms: neuroticism X agreeableness, neuroticism X conscientiousness, and conscientiousness X agreeableness
      4. Data: ***analyze***
   2. Estimate a linear model that is assigned to an object called ***m3.3***
      1. DV: Angry Reaction
      2. IV’s: Neuroticism, Agreeableness, Extraversion, Openness, Conscientiousness, Age, and Gender
      3. Two-way Interaction Terms: neuroticism X agreeableness, neuroticism X conscientiousness, and conscientiousness X agreeableness
      4. Three-way Interaction Terms: neuroticism X agreeableness X conscientiousness
      5. Data: ***analyze***
   3. Use the ***ols\_regress()*** function to get output for ***m3***, ***m3.2***, and ***m3.3***
8. Insert a second-level header: ***##*** ***Anger Expression: Anger-In***
9. Insert a new code chunk
   1. Estimate a linear model that is assigned to an object called ***m4.2***
      1. DV: Anger-In
      2. IV’s: Neuroticism, Agreeableness, Extraversion, Openness, Conscientiousness, Age, and Gender
      3. Two-way Interaction Terms: neuroticism X agreeableness, neuroticism X conscientiousness, and conscientiousness X agreeableness
      4. Data: ***analyze***
   2. Estimate a linear model that is assigned to an object called ***m4.3***
      1. DV: Anger-In
      2. IV’s: Neuroticism, Agreeableness, Extraversion, Openness, Conscientiousness, Age, and Gender
      3. Two-way Interaction Terms: neuroticism X agreeableness, neuroticism X conscientiousness, and conscientiousness X agreeableness
      4. Three-way Interaction Terms: neuroticism X agreeableness X conscientiousness
      5. Data: ***analyze***
   3. Use the ***ols\_regress()*** function to get output for ***m4***, ***m4.2***, and ***m4.3***
10. Insert a second-level header: ***##*** ***Anger Expression: Anger-Out***
11. Insert a new code chunk
    1. Estimate a linear model that is assigned to an object called ***m5.2***
       1. DV: Anger-Out
       2. IV’s: Neuroticism, Agreeableness, Extraversion, Openness, Conscientiousness, Age, and Gender
       3. Two-way Interaction Terms: neuroticism X agreeableness, neuroticism X conscientiousness, and conscientiousness X agreeableness
       4. Data: ***analyze***
    2. Estimate a linear model that is assigned to an object called ***m5.3***
       1. DV: Anger-Out
       2. IV’s: Neuroticism, Agreeableness, Extraversion, Openness, Conscientiousness, Age, and Gender
       3. Two-way Interaction Terms: neuroticism X agreeableness, neuroticism X conscientiousness, and conscientiousness X agreeableness
       4. Three-way Interaction Terms: neuroticism X agreeableness X conscientiousness
       5. Data: ***analyze***
    3. Use the ***ols\_regress()*** function to get output for ***m5***, ***m5.2***, and ***m5.3***
12. Insert a second-level header: ***##*** ***Anger Expression: Anger-Control***
13. Insert a new code chunk
    1. Estimate a linear model that is assigned to an object called ***m6.2***
       1. DV: Anger-Control
       2. IV’s: Neuroticism, Agreeableness, Extraversion, Openness, Conscientiousness, Age, and Gender
       3. Two-way Interaction Terms: neuroticism X agreeableness, neuroticism X conscientiousness, and conscientiousness X agreeableness
       4. Data: ***analyze***
    2. Estimate a linear model that is assigned to an object called ***m6.3***
       1. DV: Anger-Control
       2. IV’s: Neuroticism, Agreeableness, Extraversion, Openness, Conscientiousness, Age, and Gender
       3. Two-way Interaction Terms: neuroticism X agreeableness, neuroticism X conscientiousness, and conscientiousness X agreeableness
       4. Three-way Interaction Terms: neuroticism X agreeableness X conscientiousness
       5. Data: ***analyze***
    3. Use the ***ols\_regress()*** function to get output for ***m6***, ***m6.2***, and ***m6.3***
14. Insert a second-level header: ***##*** ***Aggression***
15. Insert a new code chunk
    1. Estimate a linear model that is assigned to an object called ***m7.2***
       1. DV: Aggression
       2. IV’s: Neuroticism, Agreeableness, Extraversion, Openness, Conscientiousness, Age, and Gender
       3. Two-way Interaction Terms: neuroticism X agreeableness, neuroticism X conscientiousness, and conscientiousness X agreeableness
       4. Data: ***analyze***
    2. Estimate a linear model that is assigned to an object called ***m7.3***
       1. DV: Aggression
       2. IV’s: Neuroticism, Agreeableness, Extraversion, Openness, Conscientiousness, Age, and Gender
       3. Two-way Interaction Terms: neuroticism X agreeableness, neuroticism X conscientiousness, and conscientiousness X agreeableness
       4. Three-way Interaction Terms: neuroticism X agreeableness X conscientiousness
       5. Data: ***analyze***
    3. Use the ***ols\_regress()*** function to get output for ***m7***, ***m7.2***, and ***m7.3***





