**Final Lab Assignment: Choose and Run the Correct Analysis**

Open the BigFive.sav data file.

These are data collected by Dr. Grice’s lab several years ago. We developed a single-item “measure” of each of the Big Five traits (O – Openness, C – Conscientiousness, E – Extraversion, A – Agreeableness, N – Neuroticism). The scores can range from -200 to +200, with higher values indicating “more” of the trait (e.g., a score of 200 indicates more extraversion than introversion). According to Big Five researchers, the five traits should NOT be correlated with one another as they represent orthogonal dimensions of personality. With multi-item questionnaires, however, several traits turn out to be moderately (e.g., r = -.3 between E and N) correlated. Using the data from our single-item measure, create a correlation table for the Big Five traits. What is the correlation between E and O? Is it significant at the .05 level? Examine all of the other Big Five correlations and list those values that are statistically significant at the .05 level. Overall, do these data support the hypothesis that the Big Five traits are orthogonal in the population?

As exploratory analyses, examine gender differences between males and females on each of the Big Five traits. For example, do women tend to be more agreeable than men? Run the appropriate analyses and summarize your results.

Open the KassingThesisReduced.sav data file.

These data are from a relationship study conducted by one of Dr. Grice’s graduate students (Leslie Kassing) many years ago. Leslie was interested in studying the dynamics of cyclical romantic relationships. A cyclical relationship was defined as one in which the couple broke up and got back together again on at least two occasions. She collected self-report data from students who were in cyclical relationships and those who were not in such relationships. The participants came to her lab, filled out a number of questionnaire, and then left.

The variables assessed were as follows:

* cyc : Cyclical relationship 1 = N (non-cyclical), 2 = C (cyclical)
* sex : M or F
* Age: in years
* Ethnic: not labeled in this data set
* Costs: How “costly” do you find the relationship? Possible Range 0 to 8
* Rewards: How “rewarding” do you find the relationship? Possible Range 0 to 8
* Invest: How much have you “invested” into this relationship? Possible Range 0 to 8
* Satisfac: How “satisfying” do you find the relationship? Possible Range 0 to 8
* Threat: How “threatened” (i.e., worrisome, fearful) do you feel when thinking about losing this relationship? Possible Range 0 to 2.
* Alternat: Do you have alternatives (e.g., another potential partner) to this relationship? Possible Range 0 to 8
* Commit: How “committed” are you to making this relationship succeed in the long run? Possible Range 0 to 8

For all variable with ranges, high values indicate more of the quality; e.g., high scores on “costs” indicate a costlier relationship.

Leslie expected most of the relationship variables to be significantly correlated with one another. For example, “costs” should be negatively associated with “rewards.” Run the appropriate analysis for the costs, rewards, invest, satisfac, threat, alternat, and commit variables. Write a brief summary of your results, and indicate why you think the results do or do not make sense.

Were males or females more likely to be involved in a cyclical relationship? Run the appropriate analyses and interpret the results.

Did males and females report different levels of costs, rewards, invest, satisfac, threat, alternat, and commit in their relationships? For example, did males report higher costs than females? Run the appropriate analyses and interpret your results.

The scale midpoint for costs, rewards, invest, satisfac, threat, alternat, and commit is 4.5. Treat this value as a fixed population parameter. Overall, did students endorse values above or below this midpoint value? Run the appropriate analyses and interpret your results.

Leslie’s main hypothesis involved comparisons between the cyclical and non-cyclical participants. Specifically, did students in cyclical relationships report higher or lower levels of costs, invest, etc. than those in non-cyclical relationships? Run the appropriate analyses and interpret your results. Based on what you know or might reason about regarding the causes of cyclical relationships, do the results make sense?