**Excel Tool for Argument Evaluation Subtest Analyses in Preparation for Scoring**

Each subject completes two separate Argument Evaluation sections: one assessing the degree of agreement with 23 focal propositions and another evaluating arguments relevant to the 23 propositions.

A separate regression is **run for each subject** with the 23 argument evaluation ratings as the criterion variable. The two predictor variables are the experts’ rating of the 23 items and the subject’s prior agreement with the 23 propositions. The regressions results in two beta weights for each subject: one for the experts’ rating and one for the subject’s prior agreement. Only the experts’ rating beta is scored for CART points.

**AET\_mReg\_Template.xlsx**

This Excel spreadsheet tool is intended to facilitate preparing the data for the analyses involved in obtaining each individual subject’s required beta weight for the expert’s rating when there are numerous subjects (i.e., 200 subjects require 200 regression analyses).

**This Excel template has 4 Sheets:**

**Sheet 1:** is used to paste in raw AET data from up to 608 subjects.

**Highly Recommended:** Work only with backup copies of the Excel template.

(Note: its cells are not locked)

Arrange your data file (preferably a backup copy) so that you can use Copy/Paste to insert the needed data into the Excel template. Arrange your data so that there is a column that contains each subject’s unique ID, followed by their evaluations of each of the 23 argument’s quality, and then by their 23 prior agreement ratings. You may find it useful to export these 47 columns (includes 1 column with each subject’ unique ID) and their column headings into separate Excel sheet.

Carefully Copy/Paste in the 47 column’s with Subjects' unique IDs, responses to 23 AET Agreement with belief ratings, followed by 23 AET Evaluation of argument’s quality ratings into Excel template: **Paste** should include each of your column headings' names:

**Begin paste with "Ss\_ID" cell (i.e., A9 of the template)**.

**Sheet 2:** should now have the data from Sheet 1 transposed so that column 1 contains the 23 AET items, column 2 contains the experts’ ratings, and the remaining columns contain each subject’s prior agreement and argument evaluation. This transposed data can be Copy/Pasted into a new Excel sheet, imported into either Stata or SPSS, and used for the regression analyses.

**Sheet 3:** contains Stata syntax to Copy/Past for creating a Stata .do file for running a series of multiple regressions. Assuming that you have fewer than 608 subjects, Copy/Paste only Syntax that corresponds to actual data. Note: You will probably need to delete any subject with incomplete data for Stata regression to run through all analyses.

**Sheet 4:** contains “approximately” the SPSS syntax to Copy/Paste for creating a SPSS .sps file for running a series multiple regressions. Note: You will probably need to do some minor editing of the text copied from Sheet 4 to put it in proper SPSS syntax format (This is easy to do using Words’ Find/Replace to remove inappropriate tabs and spaces for this).

Note: If you have the Cova\_Detection\_Template.xlsx tool for the Covariation Detection part of the Scientific Reasoning Subtest, you will find that it works much as a simpler version of the above. This analysis produces a correlation of evaluation with Δp across the 25 items for each subject.