**Instructions for the research model file**

The research model file refers to the Bayesian probability model that was created to gauge behavioral models. In the start of the file is a comment that shows the mapping of behavioral attributes to numbers.

To use this file, enter the desired input behavioral attributes into line 97 and run the whole python file to see the output. The file also takes a value ‘lamb’ on line 75. The best fitting ‘lamb’ variable can be found by using the ‘Lambda check’ program as described below.

On the bottom of the program, the program generates a scatter plot that compares the results generated by the Bayesian model with the findings from Study 1 from the Landy Bartels paper.

**Instructions for Lambda check**

This file is used to find the best fitting value for the ‘lamb’ variable in the research model file.

**Instructions GCM Model Research**

The GCM model has in comments the map of behavioral attributes in the start of the program. The model takes as input Model Dimensional scaling (MDS) values. These MDS values are generated from the behavioral attributes experimental findings using a third party program and then these MDS values are fed as input for the d array on line 24. Comments have been to places for the array d on line 24 to show how to populate it with behavioral attributes.

The GCM model can be tuned by adjusting values for ‘c’ ‘w’ and the ‘b’ array that are present on the lines 37 ,36 and 31 of the program

**Instructions for CompleteCalibrationGCM**

This model is used to tune the GCM model by finding the parameter values for ‘c’, ‘w’ and the ‘b’ array. To use this file, feed it the MDS values that are being used in the GCM model in line 48 for the array ‘d’ and the correlation values for between the behavior attributes on line 98 and run it to receive an output of the best fitting ‘c’ , ‘w’ and ‘b’ values.