

P318 Computational Modeling
Spring 2014
Week 5 Homework
Due: Monday February 10th

This homework assignment gives you some experience fitting models to actual data.

Building on last week's assignment, I want you to fit the similarity-choice model (SCM) to the data from Nosofsky (1985). You can use your own code for the SCM or use the code I uploaded as part of the solution to last week's homework assignment.

Whatever you do, you need to make sure you send me ALL of the files needed to run your code. In other words, even if you use code that I uploaded, you still need to send me all the code needed to run your program.

- Write your code so that it tries N different random starting points for the parameter values and saves the best of the best fits. I should be able to reset N to whatever value I want to try.
- Feel free to use either the hook and jeeves routine or simplex (fminsearch). Find the best-fitting values of bias and similarity found by minimizing SSE between observed and predicted probabilities.
- Create a plot showing observed against predicted probabilities.

For this assignment, start with the homework5.m file on the course web site. That file includes the data from Nosofsky (1985).

Again, feel free to reuse the code you generated for the last homework assignment, my solution to that homework assignment posted online, and the code shown in class. You will adapt some of the code you generate for this assignment for next week's assignment.