

PSYCHOLOGY 513 - QUANTITATIVE MODELS

Bob McFatter

Homework 6a

Beasley, Thompson, and Davidson [(2003). Resilience in response to life stress: the effects of coping style and cognitive hardiness, *Personality and Individual Differences*, 34, 77-95] present a table showing the results of a regression analysis predicting Depression from several predictors: negative life experiences (LES neg), emotion-oriented coping style (EmotCope), and cognitive hardiness (CogHard). The regression analysis for 106 female subjects included a significant EmotCope by CogHard cross-product interaction term. The variables were first centered (i.e., converted to deviation scores), then the cross-product was obtained and the regression analysis carried out. The means and standard deviations given below for the relevant variables are taken from one of their tables.

Variable	Mean	Std Deviation
Depression	10.22	9.99
LES neg	8.08	6.96
EmotCope	40.24	12.08
CogHard	98.3	13.31

The regression results from one of their tables are below:

	B	SE B
(Constant)	8.04	0.78
LES neg	0.47	0.1
CogHard	-0.18	0.07
EmotCope	0.24	0.07
EmotCope × CogHard	-0.0111	0.005

Please make a 2D plot (Excel is nice) of the EmotCope × CogHard interaction using sensible predictor values for LES neg, EmotCope and CogHard. (Remember that they are deviation scores.) Write down a short interpretation, suitable for the results section of a paper, of the pattern of the EmotCope × CogHard interaction.