Interpreting (Even Tricky) Regression Coefficients Workshop

Exercises: Module 3

Questions 1-3 are based on the Witness data set.

1. The following model regresses Accurate on the following: Age centered at 49; Memory, Time Spent with Seniors at School (both centered at their means) as well as the interaction between Memory and Time Spent with Seniors at School.

Regression Coefficients

Dependent Variable: ACCURATE

Variable	B	se	t	p
Intercept	4.019	.116	34.791	.000
Age of Witness Centered at 49	.009	.004	2.246	.026
Memory Centered at mean	.638	.057	11.232	.000
Time w/Seniors Centered at mean	.023	.023	1.011	.313
Memory Centered * Time w/Seniors Centered	-.041	.021	-1.954	.052

a. Is the coefficient for spending time with seniors at school significant?

b. Does that mean it has no effect on Perceived Accuracy of the Witness?

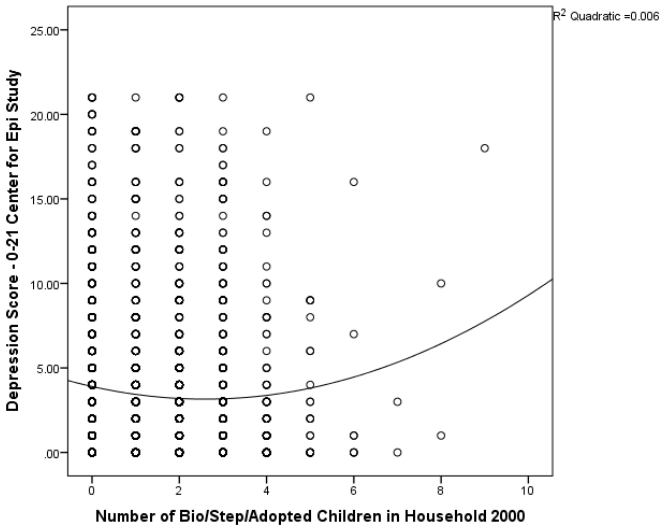
c. What is the overall effect of Perceived Memory on Perceived Accuracy? What is this effect for participants who spend little time with Seniors while at school (Senior_S = 1). Compare that to the effect for participants who spend much time with Seniors at school (Senior_S = 10).

d. Interpret the interaction. What does its significance tell you?

2. Use the NLSY data set for these questions

The following model regresses depression score on two variables: the number of children in the household, centered at 4 (KidsCen) and its square (KidsSq).

According to this model, what is the effect of having more kids on depression? What is the average depression score of people with 0 kids, 2 kids, and 5 kids?



Regression Coefficients

Dependent Variable: CESD2000Total

Variable	B	se	t	p
Intercept	3.378	.229	14.747	.000
KidsCen	.317	.170	1.865	.062
KidsSq	.112	.037	3.011	.003

b. For people with 0, 2, and 5 kids, what is the effect on depression of having one additional child?