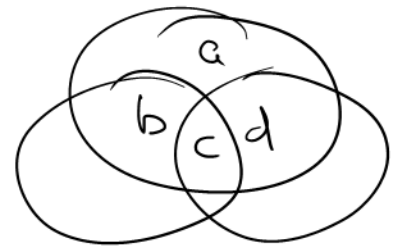


Ch5 - Ex 1 - Child aggression (aggr) as a function of mother's education (educ) and authoritarian parenting style (auth).



REGRESS /DEP = aggr /ENTER auth /ENTER educ.

Model	R	R Square
1	.739	.547
2	.744	.554

$$SS_{4.12} = b + c + d = 325.201$$

$$SS_{4.12} = -(c + d) = 321.089$$

$$SS_{4.12} = b = 4.112$$

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	321.089	1	321.089	27.727	.000
	Residual	266.351	23	11.580		
	Total	587.440	24			
2	Regression	325.201	2	162.601	13.641	.000
	Residual	262.239	22	11.920		
	Total	587.440	24			

Model	Unstandardized Coefficients				
	B	Std. Error	t	Sig.	
1	(Constant)	24.151	3.027	7.979	.000
	auth	.784	.149	5.266	.000
2	(Constant)	19.096	9.137	2.090	.048
	auth	.874	.215	4.065	.001
	educ	.315	.536	.587	.563

Strength r^2

$$r^2_{(1-2)} = \frac{4.112}{587.440} = .007 = R^2_{4.12} - R^2_{4.2} = .554 - .547$$

$$\sqrt{.007} = .084$$

Signif $F_{ck} = \frac{4.112/1}{11.920} = .345$

$$\sqrt{.345} = .587 = t_e$$

$$SE_e = \sqrt{\frac{MSE}{SS_e(1-r^2_{1,2})}} = \sqrt{\frac{11.920}{84.00(1-.712^2)}} = .536$$

$$t_e = \frac{.315}{.536} = .588$$

$$SS_e = (25-1)1.870829^2 = 84.00$$

REGRESS /STAT = DEFAU CHANGE ZPP /DESCR /DEP = aggr /ENTER auth /ENTER educ.

	Mean	Std. Deviation	N
aggr	39.68000	4.947390	25
auth	19.80000	4.663690	25
educ	10.40000	1.870829	25

	aggr	auth
auth	.739	1.000
educ	-.467	-.712

Model	R	Change Statistics				
		R Square Change	F Change	df1	df2	Sig. F Change
1	.739	.547	27.727	1	23	.000
2	.744	.007	.345	1	22	.563

$H_0: \rho_{(1,2)} = 0$
 $H_a: >, <, \neq$
 D > R H_0

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	321.089	1	321.089	27.727	.000
	Residual	266.351	23	11.580		
	Total	587.440	24			
2	Regression	325.201	2	162.601	13.641	.000
	Residual	262.239	22	11.920		
	Total	587.440	24			

Model		Unstandardized Coefficients				Correlations		
		B	Std. Error	t	Sig.	Zero-order	Partial	Part
1	(Constant)	24.151	3.027	7.979	.000			
	auth	.784	.149	5.266	.000	.739	.739	.74
2	(Constant)	19.096	9.137	2.090	.048			
	auth	.874	.215	4.065	.001	.739	.655	.58
	educ	.315	.536	.587	.563	-.467	.124	.08

SE_e \sqrt{F} P_F

$\sqrt{.007}$