

# Relationships Between Personality Factors, Stress and GPA

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## Intro

### Research Questions

- Has undergraduate stress increased over the years?
- Is Conscientiousness positively correlated with GPA?
- Is Neuroticism positively correlated with stress?
- Investigate the correlation between neuroticism and GPA.
- Investigate correlations between other traits, GPA, and stress.

## Method

- Participants- undergraduate students at SHU
- 300 participants, 253 women, 47 men,  $M$  age = 18.87,  $SD$  = .974, 226 freshmen, 31 sophomores, 29 juniors, 13 seniors, 83.3% whites, 7.7% Hispanics, 2.3% blacks, and others.

## Materials

- Seven personality scales derived from International Personality Item Pool
- Cronbach Alphas showed high reliability (Taber, 2018)
- Stress measured on a 1-9 scale
- GPA self-reported on a 0-4 scale

## Newest Findings

### Correlations

#### With GPA

- Conscientiousness = .217\*\*
- Resilience = .168\*\*
- Grit = .132\*
- Irresponsible = -.328\*\*

### Correlations

#### With Stress

- Adaptability = -.220\*\*
- Neuroticism = .386\*\*
- Resilience = -.163\*\*
- Analytical = .206\*\*

### Has stress increased?

YES - Compared to Conard (2008) stress has increased significantly  
 Mean stress (2008) = 5.71 ( $SD$  = 1.6)  
 Mean stress (2023) = 6.1 ( $SD$  = 1.43)  
 $t(701) = -3.34***$

### Table Correlations Among Study Variables

Table 1: Means, Standard Deviations, Alphas, and Intercorrelations for Major Study Variables

	Mean	SD	1	2	3	4	5	6	7	8	9
1. Conscientiousness	4.29	.462	(0.88)								
2. Adaptability	3.06	.542	.228**	(0.34)							
3. Neuroticism	3.80	.808	-.094	-.374**	(0.86)						
4. Resilience	3.21	.604	.345**	.297**	-.360**	(0.81)					
5. Analytical	3.83	.593	.226**	.023	.127*	.243**	(0.73)				
6. Irresponsible	2.21	.828	-.489**	-.141*	.070	-.441**	-.097	(0.82)			
7. Dominance	2.22	.819	-.220**	-.266**	.088	-.200**	.089	.285**	(0.92)		
8. Grit	3.28	.463	.394**	-.229**	-.299**	.614**	.212**	-.443**	-.2**	(0.73)	
9. GPA	3.25	.504	.217**	.027	-.092	.168**	-.022	-.328**	-.060	.132*	(0.73)
10. Stress	6.10	1.43	-.063	-.220**	.386**	-.163**	.206**	0.22	.114	-.079	-.087

\*  $p < .05$ . \*\*  $p < .01$ . Cronbach's alphas appear in parentheses on the diagonal.

Note. Cronbach Alphas are presented on the diagonal. \* $p < .05$ . \*\* $p < .01$ .

## Multiple Regression Results

- **With GPA:** Irresponsible  $\beta = .35***$
- **With Stress:** Neuroticism  $\beta = .31***$   
Analytical  $\beta = .18**$

## Discussion

- Conscientiousness has a significant positive correlation with GPA, reinforcing previous findings (Conard, 2006).
- Neuroticism not significantly correlated with GPA, significantly correlated with stress
- Current conscientiousness items had higher reliability than NEO\_FFI previously used
- Stress is significantly higher now compared to a previous study (Conard, 2008). Supports societal concerns about increased anxiety, depression, and mental health issues
- Neuroticism not significantly correlated with GPA, different than with DPT grad students
- In multiple regression (MR), Irresponsibility more strongly correlated with GPA over and above Conscientiousness
- Conscientiousness negatively correlates with irresponsibility ( $r = -.489$ ,  $p < .01$ ), could explain why C not significant in the MR

### Limitations

- Convenience sample, 75% freshman
- 84% women, 83.3% white

### Future Research

- Look at differences across majors



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