

PERSONALITY DIFFERENCES IN THE STRESS PROCESS AMONG FILIPINO FACULTY AND STAFF AT A STATE UNIVERSITY

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ABSTRACT: Persons have differential exposure and reaction levels to stressors and stress. One factor that may lead to such differences is personality. Data in this study came from faculty and staff members of a state university in Central Philippines. Findings showed that certain personality types tended to influence individuals to self-select certain stressors and react to them negatively as manifested by higher levels of stress and negative coping. In particular, negative personality types are linked with stressor exposure, stress, and negative coping resources. The reverse is true for those who have positive personality types. Theoretical and practical implications of the findings are discussed.

Keywords: personality differences; stress; stressors; stress process

1. INTRODUCTION

The elite status of academics has declined due to the proletarianization and massification of higher education worldwide. The shift from collegiality to managerialism, independence to shared governance, and elite to mass education has reduced professionalism while increasing accountability, workload, fragmentation, and job stress. Teaching, though fulfilling, is now among the most stressful service occupations, worsened by the neglect of academic welfare. Institutions prioritize infrastructure over faculty well-being [1,2]. Filipino studies (e.g., [2, 3]) suggest that Filipino academics face similar challenges, including stress.

Stress models explaining academic personnel's experiences fall into structural and transactional categories [4]. Structural models focus on environmental stressors, while transactional models incorporate cognitive processes like appraisal and coping. However, both overlook the role of personal resources and individual differences, despite evidence that stressors affect individuals unevenly, particularly based on personality [5]. To address this gap, recent models integrate elements of both approaches, such as the job demands-resources model [6, 7] and the demands, resources, and individual effects model [4].

Existing models fail to clearly define the role of individual differences and personal resources in stress, treating them as mere add-ons despite evidence to the contrary. The differential exposure-reactivity (DER) model [8] suggests that personality influences both stressor exposure and coping effectiveness. This study assumes personality moderates stress by either amplifying or mitigating its effects. To examine this, we integrate DER into the demands, resources, and individual effects (DRIVE) model through a survey of academic and staff personnel at a state university in Central Philippines. The following sections cover the literature, methods, results, and implications.

Researchers define stress in three ways: as environmental demands, as emotional and physiological responses, or as a mismatch between demands and resources [5]. This study adopts Kyriacou's [5] teacher stress definition, viewing stress as negative emotions triggered by perceived threats in work demands. This aligns with the DRIVE model [4], which emphasizes stress as a subjective, self-reported experience varying among individuals.

Stress models are classified as structural or transactional [4, 9]. Structural models focus on environmental stressors, while transactional models emphasize cognitive processes like appraisal and coping. Mark and Smith [4] criticized structural models for oversimplifying stress and transactional models for being too complex to test. They also noted both models overlook individual differences. To address these issues, they proposed the DRIVE model, offering a balanced, parsimonious framework for studying stress.

Stress models are either structural or transactional [4, 9]. Structural models focus on environmental stressors, while transactional models emphasize cognitive processes. Mark and Smith [4] criticized structural models as too simplistic and transactional models as too complex, both neglecting individual differences. To bridge this gap, they proposed the DRIVE model as a balanced, practical framework for studying stress.

Mark and Smith [4] treat individual differences as having additive effects on stress, conflicting with evidence on their specific mechanisms. We propose integrating the differential exposure-reactivity model into the DRIVE model, which, as a heuristic framework, allows for incorporating factors like personality and coping mechanisms.

Personality traits are stable predispositions that shape behavior, thought patterns, and emotions [6,10,11]. Common personality dimensions in stress research include the Five-Factor Model, core self-evaluation, affectivity, optimism, proactive personality, hardiness, and Type A personality [12, 13]. The Five-Factor Model is the most widely used due to its stability across contexts [14]. This study adopts the Big Five framework, which encompasses emotional stability, extraversion, conscientiousness, agreeableness, and openness [14, 15].

Evidence suggests that Big Five personality traits influence stress and burnout. A meta-analysis by Alarcon et al. [12] found that all five traits negatively correlate with burnout, reducing its impact. Emotionally stable, extraverted, conscientious, agreeable, and open individuals tend to experience less stress. However, these direct effects do not fully explain personality's role in the stress process.

Bolger and Zuckerman's [16] differential exposure-reactivity model builds on Bolger and Schilling's [8] work, showing that personality affects both exposure to stressors and reactions to them. Certain traits predispose individuals to self-select stressors and coping strategies, influencing their dis-

tress levels. The model defines two stages: **exposure** (likelihood of encountering stressors) and **reactivity** (emotional or behavioral responses to stressors).

Bolger and Zuckerman [16] identified four possible roles of personality in the stress process. First, personality may not affect stressor exposure or reactivity, though the evidence contradicts this. Second, the **differential exposure model** suggests personality influences stressor exposure but not reactions. Third, the **differential reactivity model** posits uniform exposure but different reactions. Finally, the **differential exposure-reactivity model (DERM)**, the most plausible, proposes that personality shapes both exposure to stressors and reactions to them.

Bolger and Zuckerman [16] further linked personality to stress outcomes through **coping choice** (selection of coping strategies) and **coping effectiveness** (how well strategies reduce stress). The most likely scenario is that personality affects both coping choices and their effectiveness in mitigating stress.

Personality's role in coping follows four models. The **null model** assumes no effect, though evidence suggests otherwise. The **differential choice model** links personality to coping selection but not effectiveness, while the **differential effectiveness model** sees uniform coping choices with personality moderating effectiveness. The most plausible, the **differential coping choice-effectiveness model**, posits that personality influences both coping selection and its effectiveness in managing stress.

This study surveyed 137 faculty and staff from a state university using proportional random sampling. Of 170 targeted respondents, 137 participated. As shown in Table 1, most were middle-aged, married, and regular faculty with at least a master's degree.

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After university approval, respondents provided consent and completed surveys in designated testing rooms. Confidentiality and anonymity were ensured.

The survey had three phases: (1) gathering socio-demographic data, personality traits, and coping strategies; (2) assessing job demands (stressors) and resources from the past 12 months; and (3) measuring stress and organizational outcomes.

****Big Five Factor Model:**** This study uses Goldberg's (1990, 1992) 100-item unipolar Big Five model, which employs single-word adjectives for easier administration to large samples. It is also more effective than longer bipolar personality measures.

Table 1. Socio-demographic profile of the respondents

Age	$\bar{x} = 45.3$	$s = 10.4$
Civil Status		
Single	29	
Married	105	
Widowed	2	
No. of Children	mode = 2	
Education		
Bachelor's degree	35	
Master's	55	
Doctorate	46	
Length of service	$\bar{x} = 17.7$	$s = 9.9$
Status of employment		
Casual	8	
Temporary	17	
Permanent	111	
Work		
Faculty	107	
Staff	30	

****Occupational Stress Inventory:**** The Occupational Stress Inventory-Revised (OSI-R) assesses occupational stressors, stress, and coping strategies. It has three parts: (1) ****Occupational Roles**** (e.g., role overload, ambiguity, and hostile work environment), (2) ****Personal Strains**** (e.g., vocational, psychological, interpersonal, and physical strain), and (3) ****Personal Resources**** (e.g., recreation, self-care, social support, and cognitive coping).

2. RESULTS AND DISCUSSION

Table 2 presents the bivariate correlations between personality traits and stressors. Neuroticism is positively correlated with all stressors, while agreeableness and conscientiousness are negatively correlated with most, except conscientiousness and responsibility stressors. Extraversion shows no correlation, and openness is negatively correlated only with role insufficiency. All relationships are statistically significant, suggesting that personality influences stressor exposure—neurotic individuals engage more with stressors, while those with positive traits (e.g., agreeableness, conscientiousness) tend to avoid them.

Table 2. Correlation between personality and stressor

	Role overload	Role insufficiency	Role ambiguity	Role boundary	Responsibility	Physical environment
Neuroticism	.298**	.253**	.294**	.390**	.173*	.244**
Extraversion	-.024	-.119	-.134	-.079	.110	-.141
Openness	.016	-.208*	-.166	-.140	.120	-.147
Agreeableness	-.345**	-.307**	-.266**	-.352**	-.199*	-.254**
Conscientiousness	-.175*	-.260**	-.395**	-.301**	.136	-.205*

* Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2-tailed)

Table 3 shows the bivariate correlations between personality and strain/stress. Neuroticism is positively correlated with all strains, while agreeableness and conscientiousness are negatively correlated. Openness is negatively linked to vocational strain and extraversion to all strains except interpersonal strain. This suggests that individuals with negative personality traits experience higher strain levels than those with positive traits.

Table 3. Correlation between personality and strain/stress.

	Vocational strain	Psychological strain	Interpersonal strain	Physical strain
Neuroticism	.393**	.548**	.471**	.440**
Extraversion	-.169*	-.218*	-.130	-.191*
Openness	-.182*	-.079	-.063	-.139
Agreeableness	-.340**	-.410**	-.463**	-.310**
Conscientiousness	-.399**	-.366**	-.208*	-.279**

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Table 4 presents the bivariate correlations between personality and personal resources. Neuroticism is negatively correlated with all personal resources, indicating lower engagement in recreation, self-care, social support, and rational coping. In contrast, extraversion, openness, agreeableness, and conscientiousness are positively correlated with all personal resources, except openness and agreeableness with recreation.

Table 4. Bivariate correlation between personality and personal resources.

	Recreation	Self-care	Social support	Rational coping
Neuroticism	-.258**	-.345**	-.300**	-.329**
Extraversion	.253**	.250**	.291**	.252**
Openness	.105	.209*	.225**	.207*
Agreeableness	.075	.234**	.218*	.264**
Conscientiousness	.181*	.397**	.298**	.515**

**Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Using Process software (Hayes, 2018), we examined personality's role in the stress process through serial mediation models, particularly whether neuroticism leads to stress via self-selected stressors.

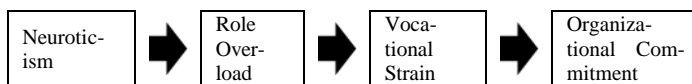


Figure 1. Stress process through serial mediation models

Tables 5 and 6 show that neuroticism is positively linked to role overload and vocational strain but not to organizational commitment. This suggests that faculty and staff with higher neuroticism tend to self-select role overload stressors, leading to vocational strain. However, neuroticism affects organizational commitment only indirectly when controlling for role overload, vocational strain, and socio-demographic factors, justifying the use of serial mediation models.

Table 5. Regression coefficients for stress process

Antecedent	Consequent		
	Role overload	Vocational strain	Organizational commitment
Constant	23.27**	9.69**	36.95**
Neuroticism	.32**	.23**	-.07
Role overload		.21**	.06
Vocational strain			-.26**
Age	-.03	-.04	.01
Sex	-.79	.10	1.83**
Civil status	.43	2.18*	.46
No. of Children	-.04	-.09	-.22
Degree	1.27	-.35	.21
No. of Years Employed	-.16	.01	.09
	R ² =.18**	R ² =.25**	R ² =.29**

*Correlation is significant at the 0.05 level (2-tailed)

**Correlation is significant at the 0.01 level (2-tailed)

Table 6 presents the serial mediation models for **Neuroticism → Role Overload → Vocational Strain → Organizational Commitment**. The indirect effect of neuroticism on organizational commitment via role overload alone is not significant. However, its indirect effects through (1) vocational strain and (2) the combined pathway of role overload and vocational strain are significant. This suggests that neuroticism leads to role overload, increasing vocational strain, which in turn reduces organizational commitment.

Table 6. Serial mediation models for the neuroticism→roleoverload→vocationalstrain→organizational commitment relationships.

Relationships	Effect*	SE	LL CI	UL CI
Neuroticism→RoleOverload→Organizational Commitment	.02	.0179	-.0141	.0575
Neuroticism→VocationalStrain→Organizational Commitment	-.06	.0221	-.1084	-.0247
Neuroticism→RoleOverload→VocationalStrain→Organizational Commitment	-.02	.0097	-.0413	-.0033

*Significance beyond chance is indicated by lower limit class interval (LLCI) and upper limit class interval NOT crossing zero.

Tables 7 and 8 present the **Neuroticism → Role Insufficiency → Psychological Strain → Organizational Commitment** models. Neuroticism significantly influences role insufficiency and psychological strain but not organizational commitment when controlling for other variables. Role insufficiency, however, affects both psychological strain and organizational commitment. This suggests that individuals high in neuroticism tend to self-select role insufficiency stressors, leading to psychological strain, though psychological strain does not significantly impact organizational commitment.

Table 7. Regression coefficients for neuroticism→roleinsufficiency→psychologicalstrain→organizational commitment model.

Antecedent	Consequent		
	Role insufficiency	Psychological strain	Organizational commitment
Constant	19.94**	3.18	39.86**
Neuroticism	.16*	.37**	-.06
Role insufficiency		.31**	-.24**
Psychological strain			-.07
Age	.001	.03	.03
Sex	-1.54	.53	1.44
Civil status	.48	1.52	.11
No. of Children	.36	-.27	-.13
Degree	-.31	.01	.23
No. of Years Employed	-.10	.01	.06
	R ² =.14**	R ² =.40**	R ² =.30**

*. Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

Table 8 confirms that the only significant indirect effect of neuroticism on organizational commitment is through **Neuroticism → Role Insufficiency → Organizational Commitment**. This suggests that faculty and staff with higher neuroticism tend to self-select role insufficiency stressors, reducing organizational commitment.

Table 8. Serial mediation models for the neuroticism→roleinsufficiency→psychologicalstrain→organizational commitment relationships.

Relationships	Effect*	SE	LLCI	ULCI
Neuroticism→Roleinsufficiency→Organizational Commitment	-.04	.0262	-.1008	-.0004
Neuroticism→PsychologicalStrain→Organizational Commitment	-.03	.0285	-.0831	.0299
Neuroticism→ Role insufficiency→Psychological Strain →Organizational Commitment	-.004	.0043	-.0131	.0039

*Significance beyond chance is indicated by lower limit class interval (LLCI) and upper limit class interval NOT crossing zero.

Table 9 shows that neuroticism is positively related to role ambiguity and interpersonal strain but not organizational commitment. However, role ambiguity significantly affects organizational commitment, suggesting a potential indirect effect of neuroticism through role ambiguity, warranting serial mediation modelling.

Table 9. Regression coefficients for neuroticism → role ambiguity → interpersonal strain → organizational commitment model.

Antecedent	Consequent		
	Role ambiguity	Interpersonal strain	Organizational commitment
Constant	19.87**	16.24**	39.19**
Neuroticism	.21**	.34**	-.07
Role ambiguity		.04	-.23**
Interpersonal strain			-.01
Age	-.09	-.02	.004
Sex	-2.13*	-1.62	1.30
Civil status	2.50*	-1.62	.45
No. of Children	-.03	-.05	-.21
Degree	.12	.13	.33
No. of Years	-.01	.01	.09

Employed

R²= .18**

R²= 28**

R²= .29**

*Correlation is significant at the 0.05 level (2-tailed)

**Correlation is significant at the 0.01 level (2-tailed)

Table 10 shows that neuroticism indirectly affects organizational commitment through role ambiguity. Faculty and staff with higher neuroticism levels tend to self-select role ambiguity stressors, leading to decreased organizational commitment.

Table 10. Serial mediation models for the neuroticism→roleambiguity→interpersonalstrain→organizational commitment relationships.

Relationships	Effect*	SE	LLCI	ULCI
Neuroticism→Roleambiguity→Organizational Commitment	-.05	.0290	-.1164	-.0084
Neuroticism→InterpersonalStrain→Organizational Commitment	-.002	.0203	-.0410	.0409
Neuroticism→ Role ambiguity→Interpersonal Strain →Organizational Commitment	.00	.0012	-.0029	.0024

*Significance beyond chance is indicated by lower limit class interval (LLCI) and upper limit class interval NOT crossing zero

3. CONCLUSION

This study examined the relationship between personality, stressors, stress, and coping resources among faculty and staff at a state university in Central Philippines. Findings support the **differential exposure-reactivity model** (Bolger & Zuckerman, 1995), which suggests that personality influences both stressor exposure and reactions to stress.

Key Findings:

- Individuals high in **neuroticism** tend to self-select stressors, experience more stress, and use fewer coping resources.
- Those with **positive personality traits** (e.g., agreeableness, conscientiousness) are exposed to fewer stressors, react less negatively, and employ better coping strategies.

Implications:

- Universities should consider personality when designing stress management policies.
- Support should be provided for individuals high in neuroticism, who are more vulnerable to stress.
- Faculty and staff should be trained to utilize personal and social resources for effective coping.

Limitations & Recommendations:

- The study's small sample limits generalizability.
- Future research should include additional variables to refine the model.

Overall, personality plays a crucial role in stress exposure, reactions, and coping, emphasizing the need for tailored workplace interventions.

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