

## PREDICTABILITY OF PERSONALITY DIMENSIONS ON PERCEIVED STRESS AND COPING STYLES AMONG MIZO COLLEGE STUDENTS

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### Abstract

*Personality has been believed to affect the way individuals perceive stress and how they cope with it. This paper reports the predictability of personality on perceived stress and coping styles among two hundred and forty Mizo students (120 extraverts and 120 neurotics), who were screened out using Maudsley Personality Inventory. Incorporating a between-subjects design, it was hypothesized that significant correlations among the measures as well as predictability of personality on the behavioral measures would be established. Contrary to previous researches, results failed to evince any significant gender effects on the measures. Extraversion is significantly and negatively related to neuroticism, perceived stress, emotion-oriented coping, and avoidance-oriented coping. Neuroticism is significantly and negatively related to stress, but positively and significantly related to task-oriented coping and emotion-oriented coping. Moreover, personality is found to significantly predict perceived stress and coping styles. Findings corroborate the link between personality, stress and coping styles and thus substantiate the already established connotation of the variables on the sampled Mizo population.*

**Keywords:** Personality, stress, coping style, extraversion, neuroticism.

### Introduction

Personality refers to individual differences in characteristic patterns of thinking, feeling and behaving. According to Eysenck's Typology, personalities can be classified according

to three dimensions: Initially consisted of the continuums of Extraversion and Neuroticism (1950), later creating Psychoticism creating the PEN model (Eysenck, 1990).

Extraverts are commonly known as being loud and outgoing while

introverts are often thought of as quiet and reserved. Extraverts, according to Eysenck's theory, are chronically under-aroused and bored and are therefore in need of external stimulation to bring them up to an optimal level of performance. Eysenck described neuroticism as reflecting differences in the intensity of emotional experience. People who are neurotic experience emotions intensely and are excitable.

Stress is defined as our response to events that disrupt, or threaten to disrupt our physical or psychological functioning (Lazarus & Folkman, 1984; Taylor, 1999). It is often said that stress exists when people confront situations that tax or exceed their ability to manage them (e.g., Lazarus 1966, 1999; Lazarus & Folkman 1984). Whenever a person is hard-pressed to deal with some obstacle or impediment or looming threat, the experience is stressful. To deal with stress, people consciously and unconsciously use various methods of coping (Gottlieb, 1997) as essential life-survival techniques (Lazarus, 1999). Coping is a goal-directed process in which the individual orients thoughts and behaviors toward the goals of resolving the source of stress and managing emotional reactions to stress (Lazarus, 1993). Coping style means a characteristic or typical manner of confronting a stressful situation and

dealing with it (Folkman & Lazarus, 1980; 1985).

### **Personality, Stress and Coping**

Personality may affect both exposure to and reactivity to stressful events and that both processes may explain how personality affects health and psychological outcomes. It is believed that personality traits moderate the relationship between stress and health by restraining or promoting the effects of stress (Ranchor & Sanderman, 1991) and that they affect the way individuals perceive stress and their strategies for coping with it (Chung, Easthope, Farmer, Werrett, & Chung, 2003). Neuroticism is possibly the most powerful personality variable that predicts, or is related to, health outcome. High N is associated with various psychological problems such as proneness to stress, inability to control impulses, negative perception and unrealistic thinking (Eysenck & Eysenck, 1985). Chung et al. (2003) found that personality traits, especially neuroticism were associated with general distress (General Health Questionnaire - GHQ - total) and intrusion in posttraumatic stress disorder patients. High E was found to be negatively related to negative health outcomes (Kozeny, 1986) and positively related to health perception, life satisfaction and self-confidence

(Kitamura et al., 2002). McCrae and Costa (1986) reported that neuroticism is related significantly to the use of immature or neurotic coping such as hostile reaction, escapist fantasy, self-blame, sedation, withdrawal, wishful thinking, passivity, and indecision. On the other hand, extraversion is significantly linked to coping styles which include rational action, positive thinking, substitution and restraint, coping styles which could be called problem-focused coping.

### **Gender, Stress and Coping**

There are recognized individual differences in the experience of stress and in coping. Gender, for example, may serve as a valuable 'window' that influences not only how individuals appraise stress but also how they cope with stress (Greenglass, 1995).

Spurlock (1995) adds that women experience multiple and overlapping roles that can create more conflict and stress than men experience. In a survey conducted in 2006 by the American Psychological Association (APA), the stress gap was confirmed: Fully 51 percent of women — compared to 43 percent of men — reported that stress had an impact on their lives. Other studies have yielded similar results (Cohen & Williamson, 1988). In one study of 2,816 people women scored significantly higher than men in terms of chronic stress (Matud, 2004).

Ptacek, Smith, and Dodge (1994) proposed that gender differences in coping strategies could arise from early socialization that promotes stereotypes of women as emotional, supportive, and dependent, compared to men who are portrayed as independent, instrumental, and rational. Evidence, however, shows that females tend to use behavioral coping (e.g., taking direct and positive actions to deal with problems) more actively than males (Fielden & Davidson, 2001). Similarly, Gianakos (2000, 2002) found that women were more likely than men to use direct action coping to deal with stress by working longer and harder. Gianakos (2000) also noted that working women might utilize coping skills such as active planning and time management to juggle work and family responsibilities effectively. She suggested that this result might be explained by the idea that employed women must work harder to survive in careers, particularly when their professions are male-dominated.

In the light of the theoretical considerations and relevant literature, the present study is proposed to assess the association between personality, stress and coping among Mizo college students with the aim to corroborate the existing literature and indicate its applicability in the projected population. In this regard, the following objectives are thus framed.

### **Objectives**

1. To examine the relationship between personality dimensions (extraversion and neuroticism) and the psychological measures (perceived stress and coping style).
2. To assess the effect of gender on the psychological measures (perceived stress and coping style).
3. To assess the effect of personality dimensions on the psychological measures (perceived stress and coping style).

### **Hypotheses**

1. Significant correlations are expected between personality dimensions, perceived stress and coping style.
2. It is expected that there will be gender (male and female) differences on perceived stress and coping style.
3. Personality dimensions (Extraversion & Neuroticism) is expected to have significant effects on perceived stress and coping style.

### **Method**

**Sample:** Seven Hundred and Nineteen (719) Mizo college students (379 males and 340 females) from different colleges in Aizawl, the capital city of Mizoram,

within the age range of 18-21 years were randomly selected and were given the Maudsley Personality Inventory (MPI, Eysenck, 1959) at the initial stage. Finally, 240 participants for the study were then screened out following a strict criterion. For inclusion in the extraverted group subjects should fall above  $M+SD$  on E and  $M-SD$  on N. Similarly, for inclusion in the neurotic group the subjects should fall above  $M+SD$  on N and  $M-SD$  on E. This would ensure that there is no overlapping between the selection of subjects for inclusion in either extraverted or neurotic group.

**Design:** The study incorporates a between- subject design.

### **Psychological Tools**

**1. Maudsley Personality Inventory (MPI; Eysenck, 1959):** The Maudsley Personality Inventory (MPI) measures two important personality dimensions: Neuroticism, or emotionality, and extraversion. Each of these two traits is measured by means of 48 questions, carefully selected after lengthy item analyses and factor analyses. The two dimensions are conceived of as being quite independent. Respondents are asked to answer each question by ticking either 'Yes' or 'No', and to tick against '?' only when it was absolutely impossible to decide.

**2. Perceived Stress Scale (PSS; Cohen et al., 1983):** The Perceived Stress Scale (PSS) measures the perception of stress. It is a measure of the degree to which situations in one's life are appraised as stressful. It consists of 10 items, which are easy to understand. Items were designed to tap how unpredictable, uncontrollable, and overloaded respondents find their lives. The questions in the PSS ask about feelings and thoughts during the last month. Respondents are asked to rate each item along a 5-point scale ranging from 'never' (0) to 'very often' (4).

**3. Coping Inventory for Stressful Situations (CISS; Endler & Parker, 1999):** The Coping Inventory for

Stressful Situations (CISS) is an easily administered scale for measuring multidimensional coping: Task-Oriented, Emotion-Oriented, and Avoidance-Oriented coping styles. The CISS is a self-report paper-and-pencil measure of coping, consisting of 48 items. There is both an adult form and an adolescent form. Sixteen (16) items assess Task-Oriented Coping, sixteen (16) items assess Emotion-Oriented Coping, and sixteen (16) items assess Avoidance-Oriented Coping. Respondents are asked to rate each item on a 5-point frequency scale ranging from (1) "not at all" to (5) "very much". The CISS can usually be completed in about 10 minutes, although there are individual differences for the completion time.

**Results and Discussion**

**Table 1:** Means and Standard Deviation for personality and perceived stress and coping styles; bivariate correlation coefficients of the variables for the whole sample

Variables	Mean	SD	E	N	S	T
<b>Extraversion</b>	27.03	10.83	-0.85			
<b>Neuroticism</b>	24.38	14.37	<b>-0.63**</b>	-0.93		
<b>Perceived Stress</b>	21.18	5.36	<b>-0.24**</b>	<b>-0.25**</b>	-0.74	
<b>Task- coping</b>	52.63	7.49	-0.11	<b>0.25**</b>	<b>-0.35**</b>	-0.8
<b>Emotioncoping</b>	50.3	9.08	<b>-0.13*</b>	<b>0.14*</b>	<b>-0.47**</b>	0
<b>Avoidance- coping</b>	49.24	9.53	<b>-0.16**</b>	0.03	<b>0.19**</b>	<b>0.19**</b>

\*\* significant at 0.01 level \*significant at 0.05 level

Note: Values in the diagonals (parentheses) are the reliability coefficients (cronbach alpha) of the psychological measures

Values in (Table 1) shows a significant negative correlation between extraversion and neuroticism, perceived stress, emotion and avoidance coping.

Neuroticism has a significant negative correlation with perceived stress, and a significant positive correlation with task and emotion coping. Perceived stress is significantly and negatively correlated to task and emotion coping while a significant positive correlation with avoidance coping is manifested. Task oriented coping is significantly and positively correlated to avoidance coping and avoidance coping is significantly and negatively correlated to emotion coping.

**Table 2:** Summary of Regression Analysis with Personality (Extraversion and Neuroticism) as predictors and perceived stress and coping styles as the criterion

Predictors	Criterion	R	R <sup>2</sup>	F	β
Extraversion	Perceived Stress	0.33	0.11	14.29**	0.2
Neuroticism					0.50**
Extraversion	Task- Coping	0.25	0.06	8.05**	-0.12
Neuroticism					-0.36*
Extraversion	Emotion- Coping	0.27	0.07	9.01**	0.21
Neuroticism					0.45**
Extraversion	Avoidance-Coping	0.2	0.04	5.17**	0.56**
Neuroticism					0.49**

\*\*significant at 0.01level \*significant at 0.05 level

To ascertain the extent to which the combination of the personality dimensions account for the behavioral measures, linear regression analysis was attempted. The (Table- 2) highlights the results for linear regression analyses for the dependent measures. Results revealed that ‘personality’ (extraversion and neuroticism) predicted 11% of perceived stress, with the resulting ANOVA (F=14.29) which is significant at 0.01 level. Beta coefficients revealed significant positive contribution of neuroticism (0.50) to perceived stress and a positive contribution of extraversion (0.20),

suggesting that neuroticism is a better predictor for perceived stress, and accounting for 50% of the total variance. With regard to coping styles, results manifested that ‘personality’ (extraversion and neuroticism) predicted 6% of task-oriented coping, 7 % of emotion-oriented coping, and 4% of avoidance-oriented coping. The resulting ANOVA for task-oriented coping (F=8.05), emotion-oriented coping (F=9.01), and avoidance-oriented coping (F= 5.17) are all significant at 0.01 level. Beta coefficients revealed significant positive contributions of neuroticism to emotion-oriented

coping (0.45) and avoidance-oriented coping (0.49) and a significant negative contribution to task-oriented coping (-0.36). However, in the case of avoidance coping, extraversion also has a significant contribution (0.56). Results suggest that neuroticism is a better predictor for

task-oriented coping and emotion-oriented coping accounting for 36% and 45% of the total variances respectively. With respect to avoidance-oriented coping, extraversion seems to be a better predictor accounting for 56% of the total variance.

Table-3: Means, Standard Deviation and ANOVA for ‘**personality**’ (extraversion and neuroticism) and ‘**gender**’ on Perceived Stress and Coping Styles

Measures	Personality	Mean	SD	F	Sig	Eta <sup>2</sup>	Gender	Mean	SD	F
PS	Extraverts	19.52	4.61	25.5	0	0.1	Female	21.65	5.01	1.9
	Neurotics	22.84	5.55				Male	20.71	5.66	
	Total	21.18	5.36				Total	21.81	5.36	
TOC	Extraverts	54.29	7.17	12.5	0	0.05	Female	51.88	7.68	2.4
	Neurotics	50.96	7.46				Male	53.38	7.24	
	Total	52.63	7.49				Total	52.63	7.49	
EOC	Extraverts	48.01	7.82	12.4	0	0.05	Female	50.27	8.97	0
	Neurotics	52.64	9.66				Male	50.34	9.22	
	Total	50.3	9.08				Total	50.3	9.08	
AOC	Extraverts	49.87	9.85	1.03	0.31	0	Female	50.05	9.45	1.7
	Neurotics	48.62	9.19				Male	48.43	9.58	
	Total	49.24	9.53				Total	49.24	9.53	

Note: Levene’s test of homogeneity was conducted indicating an equality of variance.

Findings from (Table-3) indicated that gender did not have any significant effects on perceived stress and coping style. This is in contrary to previous findings that suggest significant gender differences in stress and coping. For instance, women, according to the APA survey (APA, 2006), tend to see stress show up as physical symptoms. They are more likely than men to report stress-

related health problems such as hypertension, depression, anxiety, and obesity.

However, results (Table-3) manifested significant independent main effect of ‘**personality**’ on stress, task-oriented coping style and emotion-oriented coping style; but not on avoidance-oriented coping style. The effect size (eta squared) of ‘**personality**’

on the behavioral measures were 10% for stress, 5% and 6% each for task-oriented and emotion-oriented coping in respectively. Mean comparisons indicated greater mean scores for: Neurotics (M = 22.84) than extraverts (M = 19.52) in perceived stress; Extraverts (M = 54.29) as compared to neurotics (M = 50.96) in task oriented coping; Neurotics (M = 52.64) as compared to extraverts (M = 48.01) in emotion oriented.

Reactions to stress and exposure to it may be greatly influenced by personality. It is believed that personality traits affect the way individuals perceive stress and their strategies for coping with it (Chung, Easthope, Farmer, Werrett, & Chung, 2003). Personality differences also lead to differences in emotional responses to different Stressors (Lazarus & Folkman, 1987).

High N is reported to be associated with proneness to stress as well as general distress (Chung et al., 2003; Eysenck & Eysenck, 1985) and has been explained that the neurotic individual is postulated to have a low threshold for activation of the autonomic nervous system and is prone to anxiety and fear responses (Eysenck & Eysenck, 1985). A number of studies have also indicated that neurotic persons clearly report more stressful events and uncomfortable physical symptoms (Affleck et al., 1992; Aldwin et al., 1989; Bolger & Schilling, 1991; Breslau et al., 1995;

Headey & Weaering, 1989; Ormel & Wohlfarth, 1991) and magnify the effects of a given stressful event by heightened processing and recall of negative situational elements (Bolger, 1990; Larsen, 1992). The fact that neurotics experience more stressful life events have been attempted to be explained by Magnus et al., (1993) based on two mechanisms. First, neurotics react to a wider variety of events in a negative way. Second, their difficulties in social interaction may actually initiate negative events, which is consistent with the association between neuroticism and greater exposure to negative life events (Bolger & Schilling, 1991).

Findings add support to previous research documenting that neuroticism was a substantial predictor for emotion-focused coping and that it is highly related to the CISS emotion scale (Endler & Parker, 1999; Saklofske & Kelly, 1995). Neuroticism has been substantially correlated with many of the criteria that traditionally are used to gauge coping effectiveness, including symptoms of depression and anxiety, somatic complaints, and general Negative affect (Mineka et al., 1998; Clark et al., 1994). Viewed in this context, high Neuroticism scorers tend to use passive, emotion-focused forms of coping (Costa et al., 1996; Endler & Parker, 1990). Findings also support previous researches indicating that neuroticism/negative



emotionality has been positively correlated with escape/avoidance, and emotion-focused coping; to a lesser extent, it also is related to the decreased use of problem-focused coping (Bolger, 1990; Carver *et al.*, 1989; Hooker *et al.*, 1994; Kardum and Hudek-Knezevic 1996; McCrae & Costa, 1986).

Contrary to previous research findings, extraversion is significantly and negatively correlated to emotion-oriented and avoidance-oriented coping styles. In terms of predictability, extraversion is a substantial predictor only for avoidance oriented coping. Therefore, the findings with respect to the predictability of extraversion are contrary to a number of researches carried out on adult subjects which have indicated that extraversion is positively linked to more active and effective coping styles, i.e. problem and emotion-focused coping styles (Hooker *et al.*, 1994; Kardum & Hudek-Knezevic, 1996; McCrae & Costa, 1986; Parkes, 1986; Watson & Hubbard, 1996). Some

studies have also shown that extraversion is positively related to active problem-focused forms of coping, such as positive reappraisal and social support seeking (Amirkhan *et al.*, 1995; McCrae & Costa, 1986; Parkes, 1986). However, this is not substantiated in the Mizo sample.

The findings of this study with respect to neuroticism on perceived stress and coping are in consonance with previous researches and add to the growing literature on the predictability of personality in Mizo samples. However, with respect to the predictability of extraversion on avoidance-coping is significant and may be due to cultural variations and the subtle influences of culture and society. Further research may be carried out to explore this insightful finding. Another concern deals with the fact that no significant gender differences emerged in this study. Further, more comprehensive research could be undertaken in future to tackle this issue to substantiate this or prove otherwise.

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