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DIFFERENCES AMONG GENDER-ROLE IDENTITY GROUPS ON STRESS

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ABSTRACT

This study investigated stress differences among 210 university students who identified their gender-roles as: masculine-men, feminine-women, androgynous-men, and androgynous-women. Participants responded to the Student-life Stress Inventory and Gender-role Questionnaire. Data showed the masculine-men group experienced less overall stress when compared to the other groups; and more stress when compared to the women groups on competing. The androgynous-men group was more frustrated than were the androgynous-women group when denied opportunities. The women groups reported more reactions to stress than did the men group in experiencing headaches, allergies, weight problems and crying. No stress differences were found between the women groups.

INTRODUCTION

Over the years, theorists have described characteristics of sex-role identities in various ways. Each theorist has assigned different trait and behavior labels to masculinity and femininity.

For instance, Parson (Parson & Bales, 1955) associated masculinity with an instrumental orientation, that is, concerned with solving problems, and femininity with an expressive orientation, that is, concerned for others and group harmony. Bakan (1966) described masculinity with an 'agentic' orientation, a concern for oneself as an individual, and femininity with a communal orientation, a concern for ones relationships with others. Erikson (1964) viewed male (outer) and female (inner) distinctions as anatomical. That is, an analogue in psychological distinction between masculine fondnesses, for what a man can do, with a feminine ethical commitment, to keeping peace and healing. Other distinctions between male and female characteristics were: independence in the masculine domain and nurturance in the feminine domain (Bem, 1987).

Psychosocial developmental theorists have held the view that gender-role identification was a part of men and women healthy adjustment. That is, individuals who identified themselves with their biological sex-role were psychologically healthier and were able to function more effectively than people with other identities (Spence & Helmreich, 1978). Bem (1974) proposed that individuals with a combination of both masculine and feminine gender-role characteristics (androgynous individuals) would be better prepared to meet the challenges in a diverse environment. Bem's concept of androgynous was based on the assumption that an individual (while performing different activities) could blend modalities from the masculine and feminine, instrumental and expressive, agentic and communal.

Early researchers on gender differences used instruments, such as, *Personal Attitudes Questionnaire*, *PAQ*, (Spence, Helmreich & Stapp, 1974), and *Bem Sex-Role Inventory, BSRI*, (Bem, 1974). Both instruments assessed masculinity-femininity by having individuals respond to positive self-ascribed personality characteristics. The *PAQ* consisted exclusively of desirable instrumental and expressive traits (Spence, 1993). In the *PAQ*, there are 24 characteristics of which eight traits identify men attributes, eight identify the women attributes, and the remaining are filler items. The *BSRI* measured the extremes of the masculinity-femininity distribution and also the scores of individuals which fell in the middle of the distribution, that is, endorsed both the masculine and feminine measures. Of the 60 personality characteristics listed in the *BSRI,* 20 measures are more desirable for men, 20 are more desirable for women, and the remaining are filler items. The scores in the *BSRI* distinguished the sex-typed, cross-sex-typed from the non-sex-typed (androgynous) individuals by how they respond to the masculine and feminine personality characteristic and neutral (neither gender) adjectives. The interpretations of the *BSRI* scores were that if men who had higher masculinity scores (items describing socially desirable personality traits of an instrumental nature) than the femininity scores, they were considered having masculine sex-roles. If women had higher femininity scores (items consisting largely of traits in the expressive nature) than the masculinity scores, then women were considered having feminine sex-typed roles. However, if men had higher femininity than masculinity scores and women had higher masculinity than femininity scores, they were considered to having cross-sex-type identities. Whereas, when the masculinity and femininity scores were approximately equal on the *BSRI* (an endorsement of both masculine and feminine personality scores), the individuals (men and women) were identified as non-sex-typed, gender-aschematic, or androgynous. That is, individuals with high scores on both masculine and feminine scores (androgynous) and individuals with low scores on both masculine and feminine scores (undifferentiated individuals) were considered non-sex-typed (Bem, 1974; 1977).

A review of the literature showed researchers reported studies on various characteristics on sex-role identities but did not include stress. Eisler and Skidmore (1987) and Eisler, Skidmore, and Ward (1988) indicated that researchers had overlooked the importance of appraising stress among individuals with different sex-role identities. In their study of male gender-roles, Eisler and his colleagues developed a questionnaire which measured masculine gender-role stress (*MGRS).* The *MGRS* contained items of specific situations that created stress for men who perceived themselves as not meeting the masculine gender-role expectations. The *MGSR* was used to explore relationships between gender-based cognitive schemata and stress appraisal (Eisler et al., 1988). In their factor analysis (Eisler & Skidmore, 1987) of the *MGRS*, data showed five underlying components to the construct. The *Physical Inadequacy* construct reflected on individual's inability to meet masculine standards of physical fitness, sexual prowess, and manly appearance. The *Emotional Inexpressiveness* involved difficulties in expressing emotions. The *Subordination to Women* referred to appraisal of stress as a result of perceived competitive threats from women. The *Intellectual Inferiority* reflected on situations that questioned the individual's rational abilities or demonstrate uncertainty, indecisiveness, and lack of ambition. The *Performance Failure* reflected concerns about potential failure in challenges related to work and sexual behavior. These researchers reported stress appraisal was gender-related and from their findings stated that men experienced more masculine-role stress than did the women. In 1991, Eisler and Blalock, in a review of literature on stress, showed how the five factors identified in the *MGRS* were related to the psychophysiological measures of stress for men.

In 1992 Gillespie and Eisler developed a *Feminine Gender Role Stress* (*FGRS*) questionnaire. The *FGRS* contained items of specific situations that created stress for women who perceived themselves as not living up to the feminine gender-role expectations. Their factor analysis of the *FGRS* showed five categories of female gender-role stress: fear of unemotional relationships, physical unattractiveness, being victimized, behaving assertively, and lacking nurturance. These researchers reported that women had higher scores on *FGRS* than did the men. The *MGRS* and *FGRS* have been used in cross-cultural studies on masculine and feminine roles (Tang & Lau, 1996; van Well, Kolk, & Arrindell, 1995). In each of these studies, the researchers translated the *MGSR* and *FGRS i*nto Chinese and Dutch languages, respectively, determined the psychometric properties for the instruments with the data, and explored differences in the gender-based schemata and stress appraisals. The purpose of the present study was to investigate stress differences among groups of students who identified their gender roles as sex-typed, cross-sex-typed, and non-sex typed (androgynous). Differences on stress among these groups were determined by having participants rate their overall stress level as mild, moderate, or severe on a stress inventory and responding to different kinds of stressors and reactions to stressors.

METHOD

Participants

Two hundred and ten students, 79 (37.6%) men and 131 (62.4%) women, enrolled in a southwestern state university participated voluntarily in this study. In this group, 10 (4.8%) were freshmen, 33 (15.7%) sophomores, 58 (27.6%) juniors, 70 (33.3%) seniors, 33 (15.7%) graduate students, and 6 (2.9%) did not report their college classification. Their ages ranged from 17 to 66 years (M = 25, SD = 8.5). On gender identification roles, 55 (26.2%) perceived themselves as

having masculine-men roles, 66 (31.6%) feminine-women, 22 (10.5%) androgynous-men, and 67 (31.9%) androgynous-women.

Instruments

The *Student-life Stress Inventory SSI* (Gadzella, 1991) was used to collect data on stress. The *SSI,* based on various views of stress theorists, contains 51 items arranged into nine categories under two sections: *Stressors* and *Reactions to Stressors*. The *Stressors* section has five categories: *Frustrations (*7 items), *Conflicts* (3 items), *Pressures (*4 items), *Changes* (3 items), and *Self-imposed* (6 items). The *Reaction to Stressors* section has four categories: *Physiologica*l (14 items), *Emotional (*4 items), *Behavioral* (8 items), and *Cognitive Appraisal (*2 items). Scores on items are obtained by following the scoring instructions. First, the values for each item are obtained. Then, values (scores) for each category, section, and total stress, respectively, are summated.

Previous studies (Gadzella, 1994; Gadzella & Guthrie, 1993; Gadzella, Fullwood, & Ginther, 1991; Gadzella & Baloglu, 2001) showed the *SSI* was a fairly reliable and valid inventory measuring students' stressors and reactions to stressors. In the present study, the alpha for the total SSI group was .93.

Based on the Bem (1974) classification of sex-type identity roles, a *Gender Identification Role* Questionnaire (Gadzella, 2005) was used. This questionnaire listed six types of identity roles: (a) *masculine-men* (men who performed activities expected of men, e.g., fix cars, mow lawns, etc., also referred to as biological sex-typed or sex-typed), (b) *feminine- men* (men who performed activities expected of women, e.g., take care of children, being a nurse, also referred to as cross-sex-typed), (c*) feminine- women* (women who performed activities expected of women, e. g., wash dishes, take care of children, being a nurse, also referred to as biological sex-typed or sex-typed), (d) *masculine-women* (women who performed activities expected of men, e. g., drive tractors, mow lawns, etc., also referred to as cross-sex-typed), (e) *androgynous-men* (men who performed both masculine and feminine roles, e. g., drive tractors, taking care of children, etc., also referred to as non-sex-typed), (f) *androgynous-women* (women who performed both masculine and feminine roles, e.g., taking care of children, drive tractors, being a nurse, also referred to as non-sex-typed).

Procedure

Participants signed a release form indicating data may be used in group research studies. They were given a number to identify themselves. Instructors assigned bonus points to students who participated in the study.

On the *SSI Answer Sheet* (Gadzella, 1991b), participants identified themselves by number, checked their gender (man or woman), college classification (freshman, sophomore, junior, senior, or graduate students), and indicated their age. They rated each of the *SSI* items using a 5-point scale in Likert format with 1 = never, 2 = seldom, 3 = occasionally, 4 = often, and 5 = most of the time. On the *Gender Identification Role Questionnaire*, participants identified themselves by their assigned number and checked one role that best described them as: masculine-men, feminine-men, feminine-women, masculine-women, androgynous-men, or androgynous-women.

In analyzing the responses to the *Gender Identification Role Questionnaire*, data showed no participants checked their gender-role as feminine-men or masculine-women (cross-sex-typed). Therefore, in this study, only four gender-role identity groups were studied: masculine-men, feminine-women, androgynous-men, and androgynous-women.

RESULTS

This study investigated stress differences among the four gender-role identity groups who perceived their overall stress level as mild, moderate, and severe. They rated their stress on the SSI items. To determine if there were significant differences among the groups on the stress items, *ANOVAS* were computed for each category, section, and the *Total SSI.* Tukey post hoc tests comparisons were computed for each significant *F*-ratio. In Table 1, data show significant differences among the four identity groups in two *Stressors* categories: *Pressures* and *Self-imposed*. When the items in the *Stress section* were collapsed, post hoc tests showed the masculine-men group had a l*ower* score than did the androgynous-men group.

In the *Reactions to Stressors* section (Table 1), significant differences were found in three categories among the four groups*: Physiological, Emotional, and Behavioral.* When all the items in the *Reactions to Stressors section* were collapsed, the *Total Reactions to Stressors* section showed the masculine-men group had a *lower* score than did the feminine-women, androgynous-men, and androgynous-women, respectively.

When the 51 items were collapsed for the *Total Stre*ss, data showed the masculine-men group had a l*ower* score, that is, they experienced less total stress than did the feminine-women, androgynous-men, and androgynous-women, respectively. Stated differently, each of the other groups experienced more stress when compared to that experienced by the masculine-men group.

To determine whether specific items differed among the four groups on each of the items in the categories, ANOVAS and post hoc tests were computed. Data on specific items in the categories in which the four groups differed were analyzed. Means, standard deviations, and F-ratios are presented in Table 2.

Table 1. Means, Standard Deviations, and *F*-ratios for Identity Role Groups on Categories, Sections, and Total SSI.

Section	Category	Mean	Men-Masculine	Women-Feminine	Men-Androgynous	Women-Androgynous	*F*-Ratio
		Standard Deviation	*n* = 55	*n* = 66	*n* = 22	*n* = 67	[3,206]
	Frustrations	M	17.95	18.91	20.5	18.77	1.7
		SD	4.12	4.4	5.53	4.6	
	Conflicts	M	8.33	8.68	8.86	8.7	0.43
		SD	2.48	2.34	2.59	1.9	
	Pressures	M	13.25	15.15	15.59	14.6	4.96**
		SD	3.01	3.5	2.67	2.77	
	Changes	M	7.47	8.15	8.32	8.52	1.58

		SD	2.79	2.49	2.75	2.84	
	Self -	M	20.47	22.09	22.86	21.03	2.95**
	Imposed	SD	3.62	4.36	4.13	3.58	
Total Stressors		M	67.47	72.98	76.14	71.63	3.37**
		SD	11.66	12.77	13.6	11.68	
	Physiological	M	25.24	32.68	32.95	32.37	9.28**
		SD	6.3	9.7	9.67	9.58	
	Emotional	M	10.53	12.86	13.82	12.96	6.05**
		SD	3.2	4.38	3.55	3.92	
	Behavioral	M	16.71	19.33	18.32	20.46	5.26**
		SD	4.78	5.56	4.72	5.67	
	Cognitive	M	5.78	5.44	4.86	4.96	1.93
	Appraisal	SD	1.98	2.02	2.44	2.28	
Total Reaction to Stressors		M	58.25	70.32	69.95	70.75	8.45**
		SD	11.84	17.03	14.46	16.68	
Total SSI		M	125.73	143.3	146.09	142.37	6.75**
		SD	20.81	27.25	15.98	25.81	

*$p < .05$ ** $p < .01$

Table 2: Means, Standard Deviations, and F-ratios for Four Identity Role Groups on SSI Category Items

SSI Category Item	Group	*N*	*M*	*SD*	*F*-ratios (3,206)
Frustrations Category					
1. I have experienced frustration due to delays in reaching my goal.					
	Masculine-men	55	2.87	0.86	3.96**
	Feminine-women	66	3.33	1.00	
	Androgynous-men	22	3.64	1.09	
	Androgynous-women	67	3.21	0.99	
7. I feel I was denied opportunities in spite of my qualifications.					
	Masculine-men	55	2.35	0.93	2.93*
	Feminine-women	66	2.26	1.13	
	Androgynous-men	22	2.86	1.13	
	Androgynous-women	67	2.12	0.99	
Pressures Category					
12. I experienced due to deadlines (paper due, payments to be made, etc.).					
	Masculine-men	55	3.58	1.01	3.67**
	Feminine-women	66	4.00	0.98	
	Androgynous-men	22	4.27	0.83	
	Androgynous-women	67	3.97	0.85	
13. I experienced pressure due to overload (attempting too many things at one time).					

	Masculine-men	55	3.35	1.02	5.48**
	Feminine-women	66	3.89	1.02	
	Androgynous-men	22	4.14	0.77	
	Androgynous-women	67	3.94	0.95	
14. I experienced pressure due to interpersonal relationships (family and for friends expectations, work responsibilities).					
	Masculine-men	55	3.07	0.92	3.95**
	Feminine-women	66	3.70	1.18	
	Androgynous-men	22	3.55	1.10	
	Androgynous-women	67	3.28	1.00	
Changes Category					
16. Too many changes occurring at the same time.					
	Masculine-men	55	2.45	1.07	2.55*
	Feminine-women	66	2.80	0.96	
	Androgynous-men	22	2.81	1.01	
	Androgynous-women	67	2.96	1.02	
Self-imposed Category					
18. As a person I like to compete and win.					
	Masculine-men	55	4.22	0.92	6.63**
	Feminine-women	66	3.20	1.23	
	Androgynous-men	22	4.14	1.08	
	Androgynous-women	67	3.52	1.02	
20. As a person, I worry a lot about everything and everybody.					
	Masculine-men	55	2.89	1.10	6.60**
	Feminine-women	66	3.76	1.18	
	Androgynous-men	22	3.73	.16	
	Androgynous-women	67	3.34	1.09	
23. As a person, I worry and get anxious about tests.					
	Masculine-men	55	3.00	1.12	5.09**
	Feminine-women	66	3.79	1.17	
	Androgynous-men	22	3.41	1.40	
	Androgynous-women	67	3.63	1.08	
Physiological Category					
26. I experienced trembling (being nervous, biting finger-nails, etc.).					
	Masculine-men	55	2.27	1.04	5.02**
	Feminine-women	66	3.09	1.20	
	Androgynous-men	22	3.09	1.54	
	Androgynous-women	67	2.76	1.28	
27. I experienced rapid movement (moving quickly from place to place).					
	Masculine-men	55	2.20	1.08	3.13*
	Feminine-women	66	2.58	1.23	
	Androgynous-men	22	3.05	1.21	
	Androgynous-women	67	2.42	1.08	
28. I experienced exhaustion (worn out, burned out).					
	Masculine-men	55	2.62	1.13	6.63**
	Feminine-women	66	3.36	1.22	
	Androgynous-men	22	3.50	1.22	
	Androgynous-women	67	3.48	1.15	
29. I experienced irritable bowls, peptic ulcers, etc..					
	Masculine-men	55	1.42	0.79	6.48**
	Feminine-women	66	1.88	1.09	
	Androgynous-men	22	2.55	1.53	
	Androgynous-women	67	2.12	1.27	
31. I experienced backaches, muscle tightness (cramps, teeth-grinding).					
	Masculine-men	55	1.76	0.90	9.26**
	Feminine-women	66	2.79	0.30	

Androgynous-men	22	2.64	1.36	
Androgynous-women	67	2.88	1.47	
32. I experienced hives, skin itching, and allergies.				
Masculine-men	55	1.25	0.67	3.42*
Feminine-women	66	1.83	1.18	
Androgynous-men	22	1.77	1.23	
Androgynous-women	67	1.72	1.11	
33. I experienced migraine headaches, hypertension, and rapid heartbeat.				
Masculine-men	55	1.91	1.02	4.78**
Feminine-women	66	2.70	1.29	
Androgynous-men	22	2.41	1.22	
Androgynous-women	67	2.58	1.28	
35. I experienced viruses, colds, flu.				
Masculine-men	55	1.35	0.64	7.35**
Feminine-women	66	1.94	0.89	
Androgynous-men	22	1.50	0.74	
Androgynous-women	67	2.03	1.11	
36. I experienced weight loss (can't eat).				
Masculine-men	55	1.55	0.83	4.34**
Feminine-women	66	2.21	1.21	
Androgynous-men	22	1.77	1.11	
Androgynous-women	67	2.09	1.15	
37. I experienced weight gain (eat a lot).				
Masculine-men	55	1.65	0.88	4.13**
Feminine-women	66	2.14	1.28	
Androgynous-men	22	1.86	1.17	
Androgynous-women	67	2.42	1.44	
Emotional Category				
38. Under stressful situations, I experienced fear, anxiety, and worry.				
Masculine-men	55	2.95	1.06	8.32**
Feminine-Women	66	3.85	1.23	
Androgynous-men	22	3.91	1.02	
Androgynous-women	67	3.67	0.99	
40. Under stressful situations, I experienced guilt.				
Masculine-men	55	2.38	1.05	3.95**
Feminine-women	66	2.83	1.42	
Androgynous-men	22	3.36	1.26	
Androgynous-women	67	2.96	1.20	
41. Under stressful situations, I experienced grief, depression.				
Masculine-men	55	2.47	1.05	2.81**
Feminine-women	66	2.95	1.28	
Androgynous-men	22	3.05	1.40	
Androgynous-women	67	3.09	1.28	
Behavioral Category				
42. Under stressful situations, I cried.				
Masculine-men	55	1.87	1.06	41.41**
Feminine-women	66	3.71	1.06	
Androgynous-men	22	2.18	1.05	
Androgynous-women	67	3.57	1.06	
46. Under stressful situations, I was irritable towards others.				
Masculine-men-	55	2.73	1.03	4.43**
Feminine-women	66	3.44	1.07	
Androgynous-men	22	3.09	1.15	
Androgynous-women	67	3.22	1.14	

*$\underline{p} < .05$ **$\underline{p} < .01$

The following information summarizes how the specific items differed among the groups.

(a) The masculine-men had *lower* scores than did the feminine-women, androgynous-men, and androgynous women, respectively on pressures due to overload, e. g. attempting too many things at one time, on experiencing headaches, muscle tightness, exhaustion, worn out, burn out and on being fearful, anxious, worrying.

(b) The masculine-men group had *lower s*cores than did the feminine-women and androgynous-men, respectively, on experiencing daily hassles when reaching goals, worrying a lot about everything and everybody, and experiencing trembling, e.g. being nervous, biting finger-nails.

(c) The masculine-men group had *lower s*cores than did the feminine-women and androgynous-women groups, respectively, on worrying and getting anxious about taking tests, experiencing asthma, bronchial spasm, hyperventilation, having migraine headaches, hypertensions, rapid heart beats, getting hives, skin itching, allergies, getting viruses, colds, flu, experiencing weight loss, and/or weight gain, and crying.

(d) The masculine-men group had *higher* scores than did the feminine-women and androgynous-women groups, respectively, on competing for a job, and winning.

(e) The masculine-men group had l*ower* scores than did the androgynous-men and androgynous-women, respectively, on having experienced irritable bowls, peptic ulcers.

(f) The masculine-men group had *lower* scores than did the feminine-women group, on experiencing pressures due to interpersonal relationships, e.g., family and/or friends expectations, work responsibilities, and being irritable toward others.

(g) The masculine-men group had *lower* scores than did the androgynous-women group on having too many changes at the same time, and experiencing grief, depression.

(h) The masculine-men group had *lower* score*s* than did the androgynous-men group, on experiencing pressures due to deadlines, e. g., papers due, payments to be made, etc, and making rapid movements, e. g., moving quickly from place to place.

(i) The androgynous-men had *higher* scores than did the androgynous-women when being denied opportunities in spite of their qualifications.

(j) The androgynous-men group had *lower scores* than did the androgynous-women group on crying when in stressful situations.

DISCUSSION AND CONCLUSION

The information in the present study differed from those cited in several ways. For instance, in previous studies to determine the participants' gender-identity groups, Spence et al. (1974) and Bem (1974) used questionnaires in which participants checked self-ascribed

adjectives that best described their activities. In the present study, participants checked the best gender-role that described the activities they performed listed in the *Gender-role Questionnaire.*

Secondly, in studies on gender-identity and stress, Eisler, et al. (1988) and Gillespie and Eisler (1992) used questionnaires in which items listed potentially stressful situations for men and women, respectively. In the present study, the items in the SSI focused on stressors and reactions to stressors typically experienced by both men and women.

To better comprehend how the four groups differed, (Table 2) analyses of the items among the four groups are summarized. When compared to the other groups, the masculine-men group had l*ower* scores on 20 items than did the androgynous-men, feminine-women and androgynous-women and a higher score when compared to the women groups on competition and winning. Stated differently, the masculine-men group, referred to as the biological sex-role identity group experienced less stress than did the other identity groups. Baken (1966) described this group as having an 'agentic' orientation that is, having a concern for oneself as individuals. The psychosocial developmental theorists indicated that individuals with a biological sex-identity as having a healthy adjustment and are able to function more effectively than people with other identities Spence, et al. (1978).

Findings also showed that the androgynous-men group experienced *more* frustrations: when compared to: the androgynous-women group on when they were being denied opportunities in spite of their qualifications. Stated differently, in the androgynous groups, men experienced more frustrations than did the women. It could be stated that androgynous-men were not able to blend effectively the masculine and feminine modalities as did the women group as indicated by Bem (1974).

Both women groups (feminine-women and androgynous-women) reported *higher* scores when compared to the masculine-men group in reactions to stressful situations by experiencing more headaches, allergies, weight problems, and crying. Parson & Bales (1955) described femininity as having an expressive orientation, that is, a concern for others and achieving harmony.

No stress differences were found between the two women groups (feminine women and the androgynous-women). In two previous studies (Gadzella & Marrs-Bulter, 2006; Gadzella & Carvalho, 2006), with 308 and 258 women, respectively, data showed numerous differences among women who perceived their overall stress as mild, moderate, and severe on stressors and reactions to stressors. In the present study, data indicate that the stress women experienced was not due to their identity roles, and as such, stress did not differ between the two identity women groups. Bem (1974), suggestion could be interpreted that the androgynous-women group was able to blend effectively the masculine and feminine roles and, as such, they did not differ from the stress experienced by the feminine-women group.

This study was an exploratory one. However, a great deal of information on stress among the gender-identity groups was obtained. Before any generalizations are made, it is suggested that other studies with larger number of participants in the gender-role identity groups and stress appraisals be conducted.

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