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UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

FEMININITY REFORMULATED: THE BIG FIVE AND GENDER ROLE

A Dissertation

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirement for the

degree of

Doctor of Philosophy

By

Celia Ann Burke
Norman, Oklahoma
1997

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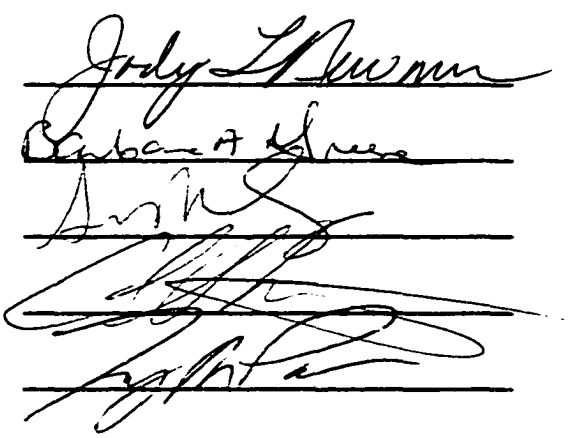
FEMININITY REFORMULATED: THE BIG FIVE AND GENDER ROLE

A Dissertation APPROVED FOR THE
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

BY



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Acknowledgments

This dissertation could not have been completed without the support and encouragement of my family, friends, and committee members. First, I would like to thank my husband, Mike, for "tending the fire" at home, and for making endless sacrifices while I labored at this project. He also provided a much appreciated calming influence when anxiety and frustration were about to consume me. I would also like to thank my daughter, Keely, whose beautiful spirit always urged me forward, and to my son, Jeff who stopped playing his electric guitar when I needed him to. This journey was made forever memorable by my dear friend, Libbe Gray. There is nothing like having a friend going through the same struggles with you. Libbe was always there for me with affirmation and support. Additionally, I would like to express my sincere appreciation to my committee members for their valuable time and input. Finally, I would like to thank my committee chair person and mentor, Jody Newman for her unfailing guidance, encouragement, mindfulness, and responsiveness throughout the last four years, but especially during the completion of this dissertation.

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Abstract

Four hundred-three undergraduate students, 121 men and 253 women, participated in the investigation of the relationship of sex role orientation to the Big Five personality domains. Femininity, as measured by the Bem Sex Role Inventory (BSRI) (Bem, 1974), was expanded by the addition of eighteen items comprising three dimensions, hypothesized by the authors, to represent dimensions of femininity which are not included on the BSRI, (Bem, 1974) encompassing the notions of empathy and relationship competence.

The original sixty BSRI (Bem, 1974) items, and the eighteen experimental items were then subjected to separate exploratory factor analyses in order to examine the relationships of the gender role dimensions to the Big Five personality domains. Principal components analysis with varimax rotation produced a five factor solution on the original BSRI (Bem, 1974) items. Three factors emerged from principal components analysis with oblique rotation of the experimental items.

The Big Five Personality domains, Neuroticism, Extraversion, Openness, Conscientiousness, and Agreeableness, were assessed with the NEO Personality Inventory - Revised (NEO-PI-R) (Costa & McCrae, 1992). An all-possible-subsets multiple regression was used to derive the best predictive model for each gender role factor. The resulting models utilize well established personality domains to untangle the complex relationships between gender role orientation and personality. The results support the addition of items to the BSRI (Bem, 1974) and underscore the more adaptive aspects of Femininity.

Agreeableness, or the capacity to be fundamentally altruistic and helpful was most predictive of the factors associated with Femininity.

Femininity Reformulated: The Big Five and Gender Role

Introduction

Gender differences in personality have been the subject of widespread attention in both the empirical and conceptual literature over the past several decades. However, clear theoretical definitions of masculinity and femininity, as well as adequate measurement of these constructs continue to elude psychologists and remain the subject of contentious controversies. The formulation of the psychological constructs masculinity and femininity have evolved from a unidimensional construct measured on a bipolar scale, to the conceptualization of masculinity and femininity as separate and independent dimensions. This separation of the dimensions allowed the combination of masculine and feminine traits within a single individual, rather than placement on a single continuum with masculinity at one extreme, and femininity at the other. Persons high on both dimensions of masculinity and femininity are classified as androgynous, a combination of the favorable traits attributed to both genders such as assertiveness and competence, coupled with compassion, warmth and emotional expressiveness. While this capacity to combine masculine and feminine traits is far more accurate, descriptive, and allows for greater flexibility in the conceptualization of gender role orientation, instruments based on this formulation have some serious limitations.

Background of the Problem

The Bem Sex Role Inventory (BSRI; Bem, 1974) and the Personal Attributes Questionnaire (PAQ; Spence & Helmreich, 1978) are the two most widely recognized gender role measures emerging from the view that masculinity and femininity are

orthogonal dimensions, and continue to be widely used. Both of these instruments were based on traits or stereotypes, judged by college students, as being standards of desirable behavior for men and women. Since the BSRI (Bem, 1974) was the first of these instruments to be developed, and is used more prevalently than the PAQ, the BSRI (Bem, 1974) was targeted for study in this investigation. Three scales were constructed for the BSRI (Bem, 1974), the Masculinity Scale, the Femininity Scale, and the Social Desirability Scale comprised of 20 personality characteristics each. The Social Desirability Scale was included as a method of identifying a social desirability response set, and consisted of both positive and negative personality traits that were perceived as being neither masculine nor feminine, or neutral. The single underlying theory used in the initial formulation of this instrument was the perspective that masculinity was associated with an "instrumental" orientation, a cognitive focus on getting the job done, while femininity was associated with an "expressive" orientation, or an affective concern for the welfare of others.

Some of the most serious criticisms of the BSRI have included Bem's (1974) failure to define the domains of masculinity and femininity, and to then construct items consistent with these definitions. Bem's avoidance of this task is very understandable because definition of the constructs of Masculinity and Femininity is in itself a daunting task. Although the essence of Masculinity and Femininity may have become reified in our perceptions, these concepts are amorphous and elude concrete, precise description. When the constructs are so difficult to define, it comes as no surprise that measurement has been so problematic.

Bem (1974) added to this base line level of confusion by using behaviors and personality characteristics interchangeably in her formulation of sex-typed traits, and has furthermore utilized ratings of what is desirable for an abstract ideal male or female to rate personal characteristics (Pedhazur & Tetenbaum, 1979). More recently, Ballard-Reisch and Elton (1992) have presented evidence that many of the characteristics included on the Masculinity and Femininity Scales do not constitute positive or desirable items. Only nine items from the masculinity scale were rated as both positive and more desirable for a man than a woman, and only eleven items from the femininity scale met the same criteria. Upon replication, only four items from the masculinity scale, and two items from the femininity scale were deemed positive in nature, more desirable for the respective gender, and retained a loading on the respective scale. Furthermore, Bem (1974) provided no factorial evidence that the Masculinity and Femininity scales are unidimensional, an important consideration since they are summated rating scales. To the contrary, there is body of current evidence that the scales are, in fact, multidimensional (e.g., Adams & Scherer, 1985, Brems & Johnson, 1990; McCreary & Steinberg, 1992).

Perhaps one of the most important criticisms pertaining to the theoretical framework of the BSRI is its failure to separate the idea of dependency and emotionality from expressiveness (Gill, Stockard, Johnson & Williams, 1987). Gil et al. (1987) have refined the definitions of instrumental and expressive orientations originally set forth by Talcott Parsons in the 1950's. This definition of expressiveness rejects the stereotypical notion of femininity as being emotional, passive, and dependent, but retains the positive aspects of

interdependence and the capacity to relate to others. In this formulation, the possession of instrumental competence does not preclude expressive skills, nor does the ability to relate expressively preempt one from being instrumentally successful.

Furthermore, Gill et al. (1987) distinguished the notions of emotionality and expressiveness. Although expressiveness involves the ability to be emotionally responsive, it is not synonymous with being emotional or emotionally labile. In our culture women are socialized to "resonate with, cope with, and even define emotions for self and other, but this is hardly the same as being emotional" (Gill et al. 1987, p. 380). At times, it is of greater emotional help to another person to suppress one's own emotions. This ability to gauge what is needed by another person, at a given time, is included in this definition of expressiveness. Examination of the items on the BSRI revealed many items that do not fit these theoretical formulations of the instrumental and expressive domains. Items on the BSRI Femininity scale such as "childlike", "shy", and "yielding" are not representative of the expressive domain and confound the notions of expressiveness, emotionality, and dependence.

Gill et al. (1987) garnered empirical support of this theoretical formulation by separating the positive and negative aspects of instrumentality and expressiveness, as well as dependency from independence. The largest and only consistent measured gender difference observed across a number of samples on these dimensions was that women reported significantly higher levels of expressive personality traits than men. Women did not consistently rate themselves lower on the instrumentality and autonomy scales, and in fact had higher scores than males on some dimensions. These findings are especially

noteworthy due to the connection of instrumentality and autonomy with the male gender role at the expense of an expressive orientation.

Gill et al. (1987) were also critical of previous measures of instrumentality and expressiveness because they were not unidimensional and were based on the very stereotypes that the women's movement has sought to overcome. These authors advocated measuring actual differences in the self-definitions of men and women, rather than measuring individuals' conformity to gender role stereotypes of masculinity and femininity. Furthermore, they identified the heterogeneity of the BSRI and PAQ Femininity scales, which intermixes negative instrumental, dependent, and expressive items as a culprit in the failure of the Femininity scales to correlate with mental health and happiness. These results, if not critically examined, may advance the view that women should abandon a relational orientation in order maximize their mental health and happiness.

Multidimensionality of Masculinity and Femininity

A recent review of factor analytic studies conducted on the BSRI and the PAQ has provided strong evidence of the multidimensionality of the instruments, resulting in as many as nine factors (Adams & Sherer, 1985; Antill & Cunningham, 1982; Antill & Russell, 1982; Blanchard-Fields, Suhrer-Roussel & Hertzog, 1994; Bledsoe, 1983; Brems & Johnson, 1990; Collins, Waters & Waters, 1979; Feldman, Biringen, and Nash, 1981; Gaa, Liberman & Edwards, 1979; Gaudrea, P. 1977; Gruber & Powers, 1982; Lubinski, Tellegen & Butcher, 1981; Martin & Ramanaiah, 1988; McCreary & Steinberg, 1992, Moreland, Gulanick, Montague & Harden; 1978; Popiel & de Lis, 1984; Pearson, 1980;

Ramaniah & Martin, 1984; Ratliff & Conley, 1981; Ruch, 1984; Waters & Popovich, 1986; Waters, Waters & Pincus, 1977; Whetton & Swindells, 1977). In all of the studies reviewed, an Expressiveness factor emerged which was labeled differently by the various authors (i.e. Concern for Others, Compassion, Interpersonal Sensitivity, Empathy, Feminine, Personal Warmth). The feminine items "flatterable", "gullible", "childlike", and " yielding", did not load on the Expressiveness factor in 18 of the studies reviewed; "shy", "soft spoken", and "does not use harsh language" did not load on the Expressiveness factor in 17 studies. In some analyses, these items formed a separate factor, and in others, loaded negatively on another factor, usually one of the dimensions comprising masculinity. Three additional factors consistently emerged in the factor solutions in the majority of studies: (a) an Instrumental factor (i.e., dominance, masculinity, interpersonal potency, leadership), (b) an Autonomy factor (self sufficient, independent, self reliant) and (c) a factor denoting gender or sex.

The items on the Masculinity scale typically formed the Instrumental factor and the Autonomy factor, with athletic and competitive forming yet another factor in many studies. These studies provide strong empirical support for the notion that both the Masculinity and Femininity scales are multidimensional. This body of literature also provides further support for the contention that expressiveness has been confounded with dependency on the Femininity scale of the BSRI (Gil et al., 1987). This failure of the Femininity scale to provide a pure measure of expressiveness could also explain the lack of association between femininity and indices of psychological health and adjustment (e.g., Adams & Scherer, 1985, Brems & Johnson, 1990; McCreary & Steinberg, 1992).

Relation of Gender Role Orientation to Personality and Behavior

Bem (1974) postulated that androgyny would result in greater adaptability and flexibility due to a broader behavioral repertoire, allowing the freedom to engage in both masculine and feminine behaviors as the situation demands, rather than suppressing behavior that is considered undesirable or inappropriate for one's sex. However, empirical investigations of this relationship have provided mixed results (Jackson & Paunen, 1980; Kelly J.A. & Worell, J., 1977; Worrell, J., 1978). These findings have undoubtedly been influenced by the criteria utilized in assessing psychological well-being, as well as by the particular situations or contexts in which assessment occurs.

In a meta-analysis of 26 studies utilizing several gender role measurement instruments and various indices of mental health (e.g., self esteem, psychological adjustment, neurosis, etc.), Bassoff and Glass (1982) concluded that subjects classified as masculine and androgynous demonstrated higher levels of mental health than their feminine counterparts. While androgyny was associated with higher levels of mental health than femininity, the masculine component of androgyny accounted for this relationship, rather than the integration of masculinity and femininity. The results of this study led the authors to conclude that femininity was a largely irrelevant component of androgyny on measures of mental health. One possible explanation for these results has been the preference in this society for masculine men and women, who are assertive, forceful, competent, and independent. Feminine individuals, or people demonstrating feminine attributes, may not be rewarded or recognized for possessing these characteristics. Thus, feminine characteristics are not only devalued by American society,

but also become devalued by the individuals that possess them. Another explanation is the possible bias in identification of mental health by instruments which seem to emphasize affective, anxiety, and somatoform disorders, often associated with femininity, while disorders of impulse control, which are more highly associated with masculinity, are less prevalent, and therefore less frequently identified and measured.

Whitley (1984) observed similar results in his meta-analysis of 32 studies. He demonstrated that masculinity had a moderately strong relationship to both the absence of depression and high general adjustment; femininity had no relationship to depression, and only a small relationship to general adjustment. Whitley (1984) hypothesized that these relationships exist due to a high-masculine person's strong belief in self-efficacy (Bandura, 1977), or their ability to deal with and control the environment. This belief is explicitly measured by the instrumental/masculine scales of gender role inventories, and is thought to be inversely related to depression. The smaller relationship of adjustment to femininity may reflect the lower value placed on communal relationships in this society, which results in fewer rewards, and therefore a lessened sense of achievement. This lowered sense of self-efficacy may explain the small relationship to general adjustment. If this is the case, the relationship between gender role orientation, depression, adjustment, and self esteem might result from the instruments tapping an underlying personality construct, rather than the effect of ones' gender role orientation resulting in differing amounts of these variables. Controlling for self esteem has greatly diminished the relationship between sex-role orientation and depression in previous studies (Whitley & Golin, 1981).

Marsh and Myers (1986), noting the observations of previous researchers, proposed a method-effect hypothesis to explain the lack of association between measurements of mental health and feminine gender role orientation. A potential weakness in the construction of the PAQ and BSRI was the inclusion of primarily socially desirable attributes. This feature may result in correlations between two sets of socially desirable items that are independent of the true relationship of masculinity and femininity. This may be especially important in correlations with self esteem, since self-esteem is typically measured by endorsement of positively-valued items, and nonendorsement of negatively valued items. The pattern of correlations demonstrated when positive and negative gender role attributes are placed on separate scales as in the EPAQ (Spence, 1979) and the Australian Sex Role Scale (ASRS;Antill, Cunningham, Russell & Thompson, 1981) supports this contention. The positive masculine scales were found to correlate highest with self esteem, the positive feminine scales demonstrated low positive correlations, and there was a near zero relationship between negative masculine scales and self esteem. The negative feminine scales exhibited a low negative correlation with self esteem.

Masculinity and Femininity and The Big Five

Many researchers and theorists have proposed alternative methods of measuring gender role orientation and the constructs masculinity and femininity. Anastasi (1988) asserted that it would be more productive to measure men and women on clearly defined and empirically established personality traits in lieu of adherence to narrowly defined cultural stereotypes as utilized in the current gender role instruments. The NEO Personality Inventory (NEO-PI-R; Costa & McCrae, 1992) is an example of an

instrument that measures empirically established personality traits, and according to the Twelfth Mental Measurements Yearbook (Conoley, Impara & Murphy, 1995), is among the most researched personality instruments, with 50 cited references. Additionally, the Five Factor Model of Personality, upon which the NEO-PI was built, has also been well-validated. Using the NEO-PI as a marker for the Big Five, some semblance of the five-factor model has been demonstrated in nearly all of the most widely used modern personality questionnaires including but not limited to the Minnesota Multiphasic Personality Inventory (MMPI; Hathaway & McKinley, 1951; Costa, Busch, Zonderman & McCrae, 1986), the California Personality Inventory (CPI; Gough, 1987; McCrae, Costa & Piedmont, 1993), Eysenck Personality Inventory (Eysenck& Eysenck, 1964; McCrae & Costa, 1985), and the Meyers Briggs Type Indicator (Myers and McCauley, 1984; McCrae & Costa, 1989). However, Conscientiousness is not well represented on either the CPI (Gough, 1987) or the MMPI (Hathaway & McKinley, 1951).

Some researchers believe that the Big Five personality domains can be availed to untangle the complex relationships among masculinity, femininity, and psychological adjustment. Lippa (1991;1995) has been a forerunner in this area, and has demonstrated considerable overlap between masculinity and femininity as measured by the PAQ and BSRI and the Big Five personality domains: Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness. Factor analyses indicated that Neuroticism was negatively related to masculinity, while Extraversion, and Openness were positively related. Femininity was primarily related to both Agreeableness and Conscientiousness. Furthermore, Lippa (1995) conducted regression analyses with the BSRI And PAQ

Masculinity and Femininity Scales as dependent measures and the Big Five scales as predictor variables. The multiple correlations between Big Five predictors and Masculinity was .72 for men and .75 for women ($p < .0001$), and the multiple correlations between Big Five predictors and Femininity was .71 for men and .72 for women ($p < .001$). While this research signals an important beginning, more research is necessary to establish evidence that this is indeed a fruitful direction for gender psychology.

Other Aspects of Femininity

In examining the gender role literature, it has become distinctly apparent that the established methods of measuring gender role are flawed and incomplete (Pedhazur & Tetenbaum, 1979; Gill et al. 1987; Ballard-Reisch & Elton, 1992). It appears that the BSRI and the PAQ have failed to capture some of the more adaptive dimensions of femininity in their item construction. Based on the evidence presented by Gill et al. (1987), writings from the Stone Center (Jordan, Kaplan, Miller, Stiver & Surrey, 1991), as well as Goleman (1995), it appears that the most glaring omission from these gender role instruments is encompassed by the notions of empathy, emotional intelligence, and relationship competence.

Jordan, Surrey and Kaplan (1991) proposed that empathy involves both affective and cognitive functioning and is a far more complex, developmentally advanced, and interactive process than is implied by classical psychoanalytic theories developed primarily for males which posit individuation, separation, and objectivity as ideals of maturity and development, and associate empathy with regression, symbiosis, and merger of ego boundaries. Jordan (1991) purports that empathy is a complex process, relying on

a high level of psychological development and ego strength. She states that in order to empathize one must have a well-differentiated sense of self, as well as an appreciation and sensitivity to the differentness as well as to the sameness of another person. Jordan (1991) proposes a tripartite process of empathy, and identifies flexibility of ego boundaries as a necessary but insufficient condition for empathy to occur. The process begins with the basic capacity for human relatedness that facilitates perception of another person's verbal and nonverbal affective cues. This is followed by a surrender to affective arousal in oneself "as if" the perceived affective cues were one's own, producing a temporary identification with the other person's emotional state. Finally, there is a resolution period in which one regains a sense of a separate self that understands what has just happened.

One might expect differences in empathic ability for males and females given the necessary balance between affect and cognition. If self boundaries are too rigid, another person's affective state will have little impact, since any attempt to understand the other will be a distanced, intellectual effort, or a projection of one's own state onto the other. On the other hand, if the self boundaries are too diffuse, differentiation may be lost, opening the way for uncontained merging, or use of the other as a narcissistic extension of self. In both cases, the opportunity for human connectedness is lost.

Goleman (1995) in his book entitled Emotional Intelligence, cited evidence collected from over seven thousand people in the United States and eighteen other countries declaring the benefits of being able to read feelings from nonverbal cues. These benefits include being better adjusted emotionally, more popular, more outgoing, and not

surprisingly, more sensitive. He also stated that, in general, women are better at this kind of empathy than men.

Furthermore, Surrey (1991) proposed a differential developmental pathway for women that stresses relationship-differentiation rather than separation-individuation. The notion of self-in-relation involves an important shift in emphasis from "separation" to "relationship" as the basis for self-experience and development. Furthermore, the deepening of relationships and relational competence are seen as the basic goals of development. The self-in-relation model assumes that creativity, autonomy, and assertion develop within the context of relationships, and there is no inherent need to disconnect, or to sacrifice relationships for self development. This capacity of women to be interdependent, cooperative, and collaborative is a dimension that is missing from the BSRI (Bem, 1974). The ability to work productively and effectively with other people is a skill that is currently in high demand in our service-oriented culture, whether it be within the family unit, at school, or in the workplace. Therefore, relationship competence constitutes an integral part of gender role, and should be included in instruments that measure gender role orientation.

Current Study

The lack of clear theoretical definitions of the psychological constructs of masculinity and femininity, as well as the heterogeneity of the Masculinity and Femininity Scales as measured by the BSRI (Bem, 1974) are impeding research focused on delineating the adaptive aspects of gender role orientation, particularly femininity. The purpose of this study was to first expand the construct of femininity by adding items that

included dimensions of emotional intelligence and interpersonal effectiveness. Three judges familiar with the gender role literature constructed the items in consultation with colleagues. The items were based primarily on the theoretical formulations of empathy and relatedness set forth by Goleman (1995) and Jordan et al. (1991). The underlying dimensions of gender role were then established with factor analysis and related to well-established dimensions of personality, namely the Big Five personality domains. It was believed that measuring participants' self-ratings on personality traits would render a more accurate measure of gender role than adherence to desirability ratings and gender stereotypes. Additionally, it was hypothesized that the more positive aspects of femininity would be identified through factor analysis, eliminating the contamination of items low in social desirability that were used in the BSRI Femininity scale in order to balance social desirability between the Masculine and Feminine scales, and that do not conform to current theoretical formulations of femininity. Research utilizing the BSRI has largely failed to elucidate the positive aspects of the feminine gender role orientation with demonstrated lack of association with measures of self esteem and adjustment (Bassoff & Glass, 1982;Taylor & Hall, 1982; Whitley, 1984, 1988).

Research Questions

The research questions that were addressed in this study were as follows: (1) What are the underlying structural dimensions of the BSRI? (2) Are there dimensions of femininity which are not represented on the BSRI? (3) How do the underlying structural dimensions of masculinity and femininity as measured by the BSRI relate to the five major personality domains represented by the NEO-PI-R?

Method

Participants

The research participants consisted of 403 undergraduate students, 253 women and 121 men, from a large southwestern university. The students ranged in age from 17 to 43 years, with a mean age of 19.5 years. The students were enrolled in introductory psychology classes, and participation in the study was strictly voluntary, resulting in additional course credit.

Instruments

Demographic Questionnaire. A personal data sheet was utilized to collect demographic information including age, sex, race, classification in college, marital status, and current relationship satisfaction.

NEO Personality Inventory- Revised (NEO-PI-R). The NEO PI-R (Costa & McRae, 1992) was used to assess personality dimensions. The (NEO PI-R) (Costa & McRae, 1992) is a 240-item instrument that assesses five major domains of personality: Neuroticism (N), Extraversion (E), Openness to Experience (O), Agreeableness (A), and Conscientiousness (C). Neuroticism (N) contrasts adjustment or emotional stability with maladjustment, or the general tendency to experience negative affects such as fear, sadness, embarrassment, anger, guilt, and disgust. Extraversion (E) encompasses sociability, liking people, preferring large groups and gatherings, being assertive, active, and talkative. A person scoring low on Extraversion (E) tends to be reserved, independent, even-paced, and prefers being alone. Open (O) individuals are attentive to inner feelings, intellectually curious, willing to entertain novel ideas and unconventional

values, and experience both positive and negative emotions more keenly than do closed individuals. Those who score low on (O) tend to be conventional in behavior and conservative in outlook, prefer the familiar to the novel, and their emotional responses are somewhat muted. The Agreeable (A) person is fundamentally altruistic, sympathetic to others and eager to help them, and believes that others will be equally helpful in return. By contrast, the disagreeable or antagonistic person is egocentric, skeptical of others' intentions, and competitive rather than cooperative. An individual scoring high on Conscientiousness (C) is purposeful, strong-willed, determined, scrupulous, punctual, and reliable. Those scoring low on (C) are more lackadaisical in working toward their goals, less exact in applying their moral principles, and more hedonistic. Each of the domains are represented by six lower level facet scale scores, resulting in a total of 30 facets, or more important traits, that define each domain.

This instrument utilizes a continuous 5-point scale. Retest reliability estimates range from .87 to .91 on the domain level, and .66 to .92 at the facet level (McCrae & Costa, 1983). Internal consistencies on individual facet scales ranged from .56 to .81 for self-reports, and from .86 to .95 on the 48 item domain scales. Intercorrelations between the five domains are low ranging from .02 to .27 with two notable exceptions. Neuroticism and Conscientiousness are strongly negatively correlated (-.53), and Openness and Extraversion are positively correlated (.40). The relationships between these domains are considered to be appropriate and meaningful by the developers given the underlying theoretical framework of the instrument, whereas depression and impulsiveness are negatively related to achievement striving and self discipline, and being outgoing is

related to being helpful.

The NEO-PI-R contains a simple validity check consisting of three items at the bottom of the answer sheets which ask the respondents to indicate if they have answered honestly and accurately, responded to all the items, and marked their responses in the correct spaces on the answer sheet. Additionally, the scales are roughly balanced in keying to counteract potential acquiescence or nay-saying biases. Guidelines have also been outlined in the administration manual to detect random responding.

The validity of the NEO-PI-R scales has been demonstrated in a variety of ways including consensual validity between self, peer, and spouse reports of the test (McCrae, 1991). Construct, convergent, and divergent validity evidence of the scales has been collected through a series of studies conducted by Costa, McCrae, and their colleagues (Costa & McCrae, 1989; Costa & McCrae, in press). The NEO-PI-R scales correlated significantly with analogous scales from other instruments. These instruments represent various theoretical perspectives including career interests (Self Directed Search; SDS; Holland, 1985), Jungian Types (Myers-Briggs Type Indicator; MBTI; Myers & McCaulley, 1985), needs and motives (Personality Research Form; PRF; Jackson, 1984), psychopathology (Minnesota Multiphasic Personality Inventory; MMPI; Hathaway & McKinley, 1951), and multidimensional personality instruments (revised California Psychological Inventory; CPI-R; Gough, 1987; Guilford-Zimmerman Temperament Survey; GZTS; Guilford, Zimmerman & Guilford, 1976; Adjective Check List;ACL; Gough & Heilbrun, 1983 , and the Interpersonal Adjective Scale Revised; IAS-R; Wiggins, Trapnell, & Phillips, 1988). McCrae and Costa (1991) demonstrated links

between the five factors and psychological well-being. High scores on Extraversion, Agreeableness, and Conscientiousness were associated with the greatest level of happiness and life satisfaction.

Bem Sex Role Inventory (BSRI; 1974). The Bem Sex Role Inventory (BSRI; Bem, 1974) was used to assess dimensions of gender role orientation. The BSRI (Bem, 1974) is a self-administered 60-item questionnaire containing a Masculinity scale, and a Femininity Scale. The remaining 20 items are treated as neutral fillers. The adjectives contained in the BSRI (Bem, 1974) are scored on a 7-point scale ranging from "never or almost never true" to "always or almost always true." The BSRI was designed to test the hypothesis that masculinity and femininity are orthogonal constructs. Orthogonality would allow for individuals to exhibit both masculine and feminine traits, or androgyny (Bem, 1974). Initial analyses of the scales yielded internal consistency reliabilities of .86 and .82 for masculinity and femininity, respectively (Bem, 1974). In their 1992 study, Ballard-Reish and Elton reported alpha coefficients of .78 for masculinity and .86 for femininity. Test-retest reliability of .90 has been reported for both scales. Statistical independence of the constructs was demonstrated in two separate samples (Stanford University: r = .11 for males, and r = -.14 for females; Foothill Junior College: r = -.02 for males, and r = -.14 for females). Concurrent validity has been established by moderate correlations with other gender role instruments such as the Personal Attributes Questionnaire (Spence, 1975).

Experimental Scale. In an effort to expand current definitions of femininity, eighteen items comprising two additional scales were constructed. Three judges familiar with the

gender role measurement literature constructed the items which formed the Emotional Intelligence and Interpersonal Effectiveness Scales. The items were interspersed with the items on the BSRI with the author's permission. Consequently, every fourth item presented on the BSRI was an experimental item.

Results

Prior to analysis, the data were examined through various SPSS programs for accuracy of data entry, missing values, and fit between their distributions and the assumptions of multivariate analysis. There were 16 missing cases for the Agreeableness variable, 12 missing cases for the Conscientiousness variable, and 12 missing cases for the Extraversion variable, 13 missing cases for the Neuroticism variable, and 11 missing cases for the Openness variable. Since the percentage of missing data as compared to the total number of subjects in the data set was negligible, and the missing data occurred randomly in the distribution, the means of the variables were substituted for the missing data.

The potential for univariate outliers was screened by examining the skewness and kurtosis of the distributions of the eight factor scores and the five domain scores (Agreeableness, Conscientiousness, Extraversion, Neuroticism, and Openness). Of the BSRI (Bem, 1974) experimental items, the distribution of the Relationship Orientation factor was extremely negatively skewed and kurtotic. Similarly, the distribution of the Expressiveness factor of the original BSRI (Bem, 1974) items was skewed and kurtotic, and the distribution of the Emotional Immaturity factor was slightly kurtotic. The distributions of the five domain scores were examined prior to substituting the means for

missing data. Only the Neuroticism domain had slightly positive skewness, which became slightly more skewed when mean scores were substituted for missing data.

Twenty-nine multivariate outliers were identified through Mahalanobis distance with $p < .001$. All 29 outliers were deleted, leaving 374 cases for analysis. The distributions were re-examined after deleting the outliers. The Relationship factor remained only very slightly negatively skewed, and the Emotional Immaturity factor remained slightly positively skewed. Overall, the distributions of the factor scores and the domain scores were greatly improved with the deletion of outliers.

Separate factor analyses were conducted on the 60 original BSRI items (Bem, 1974) and the 18 experimental items. Principal components factor analysis with an oblique rotation was used to factor the eighteen experimental items, since the factors were correlated in excess of $r = .30$ (Tabachnick & Fidell, 1989). The solution resulted in three interpretable factors. Four factors were originally extracted with eigenvalues greater than 1.0 accounting for 52% of the variance; however, the fourth factor consisted of only one item and was excluded from further analysis. Table 1 summarizes the eigenvalues and variance explained by each of the factors. Loadings of items on factors are presented in Table 2. Items are ordered and grouped by the size of the loading to facilitate interpretation. Only loadings greater than .40 are included in the table. On Factor 1, items with the highest loadings included "relationship oriented", "nurturing", desire emotional intimacy", and "committed to relationships", and seemed to represent a Relationship Orientation. The items "cooperative", "willing to compromise", "willing to put others' needs first", and "accepting of differences in people" loaded most highly on

Factor 2, which was identified as an Interpersonal Effectiveness factor. Factor Three had highest loadings by the items "cooperative", "trust my intuition", "self aware", and "experience others' feelings", which seem to be best captured by Emotional Sensitivity, and was labeled accordingly.

Internal consistency reliabilities were calculated for the scales formed by the three factors. For the Relationship Orientation factor, the coefficient alpha was .82. For the Interpersonal Effectiveness and Emotional Sensitivity factors, the alpha coefficients were .70 and .59 respectively.

Factor analysis of the original 60 BSRI (Bem, 1974) items was accomplished using principal components analysis with varimax rotation. The initial factor solution produced fifteen factors with eigenvalues greater than 1, accounting for 63% of the variance. However, visual examination of the scree plot revealed five distinguishable factors. Furthermore, a five-factor solution was consistent with previous factor solutions of the BSRI (Bem, 1974; Antill & Cunningham, 1982; Whetton & Swindells, 1977). Consequently, five factors were rotated to final solution, accounting for 41.6% of the variance. The eigenvalues and variance explained by each of the factors is shown in Table 3.

Table 5 contains the loadings of items on factors and are ordered by size of loading. Based upon examination of the rotated factor matrix, factor labels were designated as follows: Factor 1 - Expressiveness; Factor 2 - Autonomy; Factor 3 - Leadership; Factor Four - Emotional Immaturity; and Factor Five - Masculinity. On Factor 1, or Expressiveness, the items "warm", "tender", "gentle", "compassionate", "sympathetic",

"helpful", "affectionate", "sensitive to needs of others", "eager to soothe hurt feelings", and "understanding" loaded most highly. The Expressiveness factor is ubiquitous in previous factor analytic studies of the BSRI (Bem, 1974), and has been deemed as the factor that is most highly associated with the feminine gender role. "Self-sufficient", "self-reliant", "independent", and "individualistic" loaded most highly on Factor 2, or Autonomy. This factor is also well-represented in previous studies of the BSRI (Bem, 1974). "Shy" and "soft spoken" loaded negatively on Factor 3, while "have leadership abilities", and 'act as a leader" had positive loadings. This factor seems best described as a Leadership factor. Factor Four was comprised of items including "forceful", "moody", "jealous", and "unpredictable" and seems to represent characteristics consistent with Emotional Immaturity. The Fifth Factor was defined by a high positive loading for "masculine", and a high negative loading for "feminine", as well as positive loadings on "athletic" and "competitive". This factor appears to be comprised of stereotypic masculine traits, and was labeled Masculinity. All of the factors produced are well-represented by previous factor analytic studies of the BSRI (Bem, 1974).

Internal consistency measures were also calculated for the scales formed by the five factors. The coefficient alphas for the five factors are as follows: (a) the Expressiveness factor was .83, (b) the Autonomy factor was .76, (c) the Leadership factor was .40, (d) the Emotional Immaturity factor was .66, and (d) the Masculinity factor was .39. The Leadership factor and the Masculinity factor were the least consistent scales.

Among the experimental factors the Relationship Orientation factor correlated moderately with the Interpersonal Effectiveness factor ($r = .35$). Since an orthogonal

rotation was used with the original BSRI (Bem, 1974) items, correlation coefficients were not applicable. However, notable correlations between the original factors and the experimental factors were observed. The Expressiveness factor correlated highly with the Relationship Orientation factor ($r = .73$), signifying considerable overlap between these factors. Additionally, there was a strong relationship between the Expressiveness factor and the Interpersonal Effectiveness factor ($r = -.63$). Although the sign is negative, this represents a positive relationship due to the rotation of the Interpersonal Effectiveness factor. A moderate correlation occurred between the Autonomy factor and the Emotional Sensitivity factor ($r = .48$) which was initially somewhat surprising. However, upon inspection of the items comprising both factors, the relationship between self sufficiency and self awareness became apparent. Table 4 presents the correlations among the three experimental factors as well as the five factors formed by the original BSRI (Bem, 1974) items.

A series of multiple regression analyses were then conducted to examine the relationships between the three gender role factors produced from the experimental items (Relationship Orientation, Interpersonal Effectiveness, and Emotional Sensitivity), the five gender role factors extracted from the original BSRI items (Expressiveness, Autonomy, Leadership, Emotional Immaturity, and Masculinity) and the five personality domains (Neuroticism, Extraversion, Openness, Conscientiousness, and Agreeableness). The goal of the regression analyses was to identify the best set of predictors (personality domains) that accounted for the highest amount of variance in the gender role factors. To accomplish this, all-possible-subset regression analyses were conducted with both sets of

factors. The following procedure was used for each dependent variable or gender role factor:

1. Factor scores were calculated for the factors derived from each Factor analysis, and used as dependent variables. Mean scores on the five NEO-PI-R domains were used as independent variables or predictors. All- possible-subset regressions were conducted to determine the best linear combination of personality variables for predicting gender dimensions. The results allowed for the examination of the best "n" variable models (one variable, two variable, three variable, and....) until all variables were included in the analyses.
2. Each best "n" variable model was then tested using standard multiple regression, which tested the overall significance of the model with a $p < .05$. The significance of each predictor's contribution to the regression model was then assessed with manually calculated F-tests, utilizing the increase in R^2 with the inclusion of the predictor in the model placed in the numerator, and the total variance explained by the model in the denominator. The increase in R^2 was required to be significant with a $p < .05$ in order to be included in the model.

Table 6 illustrates each personality domain's contribution to the regression model for each experimental gender role factor. Each personality domain's unique contribution to the model, as well as the cumulative variance explained, and zero order correlations are presented.

For the factors derived from the experimental items, Agreeableness explained the greatest amount of variance in the Relationship Orientation factor, with an R^2 of 11%.

Extraversion, Neuroticism, Conscientiousness and Openness were all significant contributors to the model, increasing the explained variance to 25%. The inclusion of Neuroticism in the model constituted addition of unique variance, even though the correlation with the factor was low with an $r = .10$, $p < .05$.

Agreeableness contributed nearly all of the explained variance in the Interpersonal Effectiveness factor with an R^2 of nearly 30%, and a correlation of -.55. The negative correlation in this case constitutes a positive relationship, due to the rotation of the factor which resulted in negative loadings. Openness contributed slightly, yet significantly, to the model boosting the explained variance to 31%. The Emotional Sensitivity factor was defined nearly equally by the Openness and Conscientiousness domains, with 6% and 5% of explained variance respectively. Extraversion was included in the best three variable model, but was dropped out of the best four variable model, which added Neuroticism and Agreeableness for a total of nearly 14% explained variance.

Table 7 summarizes the unique contribution of each personality domain to the regression model for the original BSRI (Bem, 1974) items, the cumulative variance, and the zero order correlations. The Expressiveness factor was most accurately predicted by Agreeableness, which explained 24% of the variance. Extraversion and Neuroticism also contributed significantly to the model, boosting the R^2 to nearly 38%. Again, Neuroticism contributed some unique variance to the model, although its zero order relationship to Expressiveness was negligible.

All five personality domains contributed significantly to the Autonomy factor, with Conscientiousness explaining the largest amount of variance (15%). Inclusion of the

other domains raised the explained variance to 24%, with fairly equal contributions. However, Neuroticism had the next highest negative relationship to Autonomy with an r of -.23, $p < .05$. Extraversion largely defined the Leadership factor with 30% explained variance, with Agreeableness, Neuroticism, and Openness contributing an additional 9% variance for a total of 38% of the variance.

The single best predictor for the Emotional Immaturity factor was Agreeableness, with a negative correlation ($r = -.46$), accounting for 22% of the variance. Neuroticism contributed an additional 9% variance to the model, while Conscientiousness and Extraversion made negligible contributions of approximately 3% variance each. The entire model accounted for a total 38% variance. Neuroticism was the largest contributor to the model for the Masculinity factor, accounting for 16% of the variance ($r = -.40$). Agreeableness, Openness, and Extraversion collectively accounted for an additional 9% of the variance, boosting the total R^2 to 24%.

Discussion

The multidimensionality of the BSRI (Bem, 1974) was again substantiated by the results of this study. The emergence of five factors clearly indicates that the BSRI (Bem, 1974) contains more than unidimensional Masculinity and Femininity factors. Also consistent with previous factor analytic studies of the BSRI was the failure of several items on the Femininity scale to load meaningfully on any factor. These items include: (a) "flatterable," (b) "gullible," (c) "does not use harsh language," and (d) "childlike." Three other items which have failed to load meaningfully in previous research, "yielding," "shy," and "soft spoken", did load on factors in this study. "Yielding" loaded

on the Expressiveness factor, and "shy" and "soft spoken" loaded negatively on the Leadership factor. These findings provide further evidence that "flatterable," "gullible," "does not use harsh language," and "childlike," are no longer considered to be stereotypic gender role characteristics, and should not be utilized in analyses focused on exploring the relationship between gender role orientation and indices of mental health. Use of these traits are pejorative to the feminine gender role.

The fact that "yielding" loaded on the Expressiveness factor along with primarily positive traits suggests that the item "yielding" was perceived as an interpersonal asset, perhaps similar in meaning to adaptable or cooperative. Also notable is the fact that "shy" and "soft spoken" loaded negatively on the Leadership factor, and did not load on the Expressiveness factor. This suggests that these traits are not viewed as feminine traits, but traits that are not conducive to a leadership role regardless of gender. These findings support the contention of Gill et al. (1987) that the items "flatterable," "gullible," "does not use harsh language," "childlike," "shy," and "soft spoken" are not part of the Expressiveness dimension, and confound the essence of it with undesirable characteristics.

The addition of the experimental items added to the definition of femininity as hypothesized, but formed three factors instead of two. This finding adds credence to notion that gender role orientation is a complex phenomena which necessitates a more complex method of measurement than the BSRI affords.

Results obtained with the all-possible-subsets multiple regression identified the linear combinations of personality domains that were most predictive of the gender role factors.

Seemingly, Agreeableness is most predictive of the feminine gender role, as the Expressiveness, Relationship Orientation, and Interpersonal Effectiveness factors all draw heavily upon this personality domain. Agreeableness seems to capture the adaptive core of Expressiveness, which is the capacity to be altruistic, sympathetic, eager to help others, and the belief that this helpfulness will be reciprocated. The strong association of Agreeableness with Expressiveness, or an affective concern for the welfare of others, is consistent with previous literature examining the feminine gender role in which Expressiveness has been identified as the definitive dimension. Furthermore, the addition of Extraversion in the models predicting the Relationship Orientation and Expressiveness underscores the social nature of these dimensions. Of the experimental feminine factors, the Relationship Orientation and Emotional Sensitivity factors represent more complex dimensions than Interpersonal Effectiveness factor. It is interesting to note the large contributions to the feminine factors made by Agreeableness, while Conscientiousness and Neuroticism (emotional stability) were of much less importance. These results depart from the findings of Lippa (1995) in which Femininity was related primarily to Agreeableness and Conscientiousness.

Conversely, the definitive personality domains for the factors representing the traditionally masculine dimensions, Autonomy, Leadership, and Masculinity were Conscientiousness, Extraversion, and low Neuroticism, or emotional stability. Conscientiousness, or the capacity to be purposeful, strong willed, and determined is very similar to the notion of instrumentality, or a cognitive focus on getting the job done. Both of these constructs share the values characteristic of an achievement orientation, and the

attributes necessary for success in Western society.

Emotional stability is a very positive attribute that was highly predictive of the Masculine gender role factors, and probably accounts for the historically superior outcome of Masculinity on measures of mental health. However, emotional stability was also a predictor in the majority of gender role factors that emerged from this analysis, the exceptions being the Emotional Immaturity factor, and the Relationship Orientation factor. While neither pole is inherently healthier, (it is possible to obtain a high score on Neuroticism without having a diagnosable psychiatric disorder, and conversely one may have a diagnosis such as Antisocial Personality Disorder, without having an elevated Neuroticism score), generally speaking factors which have a negative correlation with Neuroticism will correlate more highly with measures of mental health. Thus, Femininity would seemingly also fare better when associated with measures of mental health if the scale was refined to exclude undesirable items, or if the conceptually clearer dimensions were used in the analysis.

Just as the positive attributes of the feminine factors occur in the absence of some adaptive domains that are more strongly associated with the masculine factors, the positive aspects of the Masculinity factor are offset by some negative attributes, such as egocentricity, and the tendency to be closed to experience. These negative aspects are not considered facilitative of interpersonal relations, and may constitute a manner of relating to others that is distant, intellectualized, or subject to projection of one's own emotional state (Jordan, 1991). Therefore, seemingly both traditional gender role orientations could benefit by tempering the predominant characteristics, and borrowing from the general

personality tendencies of the other gender.

The mainstay of the Emotional Immaturity factor was Agreeableness, with a moderate negative correlation, suggesting that egocentricity is the definitive trait in this model. The positive relationship with Neuroticism, or the experience of disruptive emotion, and the negative relationship with Conscientiousness, signifying a lack of focus, and a more lackadaisical approach to achieving goals were not surprising, and represent attributes that are not generally valued in either gender. Most of the items that loaded on the Emotional Immaturity factor form the Social Desirability scale of the BSRI (Bem, 1974); however, two of the items are from the Masculinity Scale: "forceful" and "aggressive." Since typically Masculinity has had stronger associations with measures of mental health, it is interesting that two masculine items loaded with items with quite negative connotations. The fact that these items formed a separate factor support the notion that these traits are no longer considered desirable or descriptive of the masculine gender role. Furthermore, the inclusion of these undesirable items on the BSRI introduces unwarranted variability into the instrument.

Limitations of the Study

The limitations of this study include the use of a relatively small university sample which was comprised of more women than men. These results would be much more generalizable if the sample were more representative of the population at large. A stratified sample with equal numbers of men and women, a broader range of ages and associated developmental levels, and participants representing more diverse socio-economic circumstances (rural vs. urban dwellers), and occupations would improve the

robustness of these findings. Furthermore, a larger sample would increase the stability of the factors, and the likelihood of replication.

Although the BSRI (Bem, 1974) is considered to be the best gender role instrument currently available, it is inherently flawed. The use of better measures that more effectively capture the multidimensionality of gender role orientation would increase the validity of results. Similarly, the use of other variables, and other measures would increase the descriptive ability. Future research can be enhanced by concentrated efforts to define and measure the sub-dimensions of gender role orientation and gender identity.

Conclusions

The findings in this study suggest that the BSRI Masculinity and Femininity scales include items that are neither descriptive nor socially desirable for both sexes, particularly females. Furthermore, the BSRI fails to include some very adaptive aspects of the feminine gender role as evidenced by the addition of the experimental items. In utilizing the NEO-PI-R and the five factor model of personality, it was possible to underscore the adaptive aspects of femininity and masculinity without out the use of gender stereotypes. Therefore, an updated version of the BSRI is in order if gender psychologists wish to continue utilizing gender stereotypes in the measurement of gender role orientation. Seemingly it would be more effective to reconceptualize the measurement of gender role orientation along personality trait lines as Anastasi (1988) has purported. Furthermore, the utilization of these purer factors in research exploring the relationship of gender role orientation to mental health may produce dramatically different results without the contamination of the undesirable and nondescriptive items.

Femininity may be recognized as having more adaptive qualities as the relationships to the Big Five personality domains have demonstrated.

However, the five factor model of personality accounted for only approximately a third of the variance in the gender role factors. Therefore, gender role seemingly encompasses much more than the five factor model of personality. Future researchers will have the challenge of uncovering what is included in the remaining 70% of variance in gender role orientation. Assuredly, gender identity is far more complicated than can be captured in formulations that posit only two global dimensions, Masculinity and Femininity. These results suggest that gender role cannot be effectively described by a model proposing five dimensions. The quest for better definitions of the sub-dimensions of gender role identity, followed by more precise measurement of these dimensions continues as Pedhazur & Tetenbaum (1979) have suggested.

These findings also lend support to the theoretical notions set forth by Jordan, Surrey and Kaplan (1991), which posit that the masculine ideals of individuation, separation, and objectivity fail as developmental ideals for women. The experimental factors (Relationship Orientation, Interpersonal Effectiveness, and Emotional Sensitivity) deemed to add to the definition of femininity, as well as Expressiveness, which is traditionally associated with the feminine gender role, were related to very positive, well validated personality traits. These traits include altruism, sympathy to others' needs, eagerness to help others, and the belief that others will be equally helpful in return. This substantiates the contention that women develop and mature within relationships rather than through separation, disconnection, and independence. This developmental pathway

builds relationship competence, and stands in juxtaposition to the stereotype of females as being needy, emotional, and dependent.

Furthermore, the factors that are traditionally associated with the masculine gender role, such as Autonomy, Leadership, and Masculinity were associated with some negative traits including egocentricity, being skeptical of others' intentions, an interpersonal stance that is competitive rather than cooperative, conservatism, conventionalism, and muted emotional responses. While, the masculine factors did include very positive attributes such as purposefulness, sociability and emotional stability, there is no evidence to support the notion that the masculine gender role should be upheld as the healthier ideal.

Practically, these results suggest that feminine women should be encouraged and affirmed for their altruistic interpersonal tendencies, while at the same time urged to retain enough self focus to be able to attend to their own needs and "regain a separate sense of self". This subtle shift back to a self focus is necessary in order to cognitively process the empathic process as Jordan (1991) has proposed in her theory of empathy. Furthermore, these interpersonal tendencies should not preclude pursuit of instrumental endeavors. Masculine Men, on the other hand, would seemingly benefit from tempering their more purposeful, individualistic, egocentric stance, with more altruistic and interdependent interactions.

Although the conundrum of gender identity is far from being solved, it does appear that personality may play a larger role in gender identity than previously acknowledged in theories that emphasize socialization facilitated by adherence to gender ideals and stereotypes. With the introduction of personality into the variables comprising gender

identity comes a host of other considerations including the heritability of some personality traits, which opens the door to the possibility of some gender linked personality traits. Perhaps as our society becomes more evolved, gender identity will become less an issue than the possession of characteristics and behaviors that are valued in people, regardless of their biological sex.

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Table 1

Variance Associated with Experimental Factors

Factor	Eigenvalue	Percentage of Variance	Cumulative Percentage of Variance
1	5.30	29.4	29.4
2	1.55	8.6	38.0
3	1.47	8.2	46.2

Table 2

Factor Analysis of Experimental Items

	Factor 1	Factor 2	Factor 3	Comm.
Relationship oriented	.71	-.19	.12	.51
Nurturing	.71	-.51	.22	.58
Desire emotional intimacy	.70	-.11	.20	.51
Committed to relationships	.66	-.20	.09	.60
Mutual need & support	.65	-.30	.15	.43
Comfortable with emotion	.62	-.24	.42	.46
Giving	.60	-.55	.23	.49
Responsive to emotion	.59	-.32	.53	.52
Cooperative	.32	-.73	.15	.54
Willing to compromise	.15	-.72	.10	.53
Put others' needs first	.51	-.66	.17	.52
Accepting of differences	.11	-.65	.14	.45
Good listener	.43	-.52	.37	.40

Table Continues

	Factor 1	Factor 2	Factor 3	Comm.
Aware of body language	.13	-.05	.71	.51
Trust my intuition	.28	-.15	.67	.47
Self aware	.05	-.20	.67	.47
Experience others' feelings	.41	-.28	.47	.33

Table 3

Variance Associated with Original BSRI Factors

Factor	Eigenvalue	Percentage of Variance	Cumulative Percentage of Variance
1	10.54	17.6	17.6
2	6.02	10.0	27.6
3	3.36	5.6	33.2
4	2.75	4.6	37.8
5	2.27	3.8	41.6

Table 4

Factor Correlation Matrix

Experimental	Factor 1	2	Factor 3
Factor 1	1.00		
Factor 2	.36*	1.00	
Factor 3	.23*	.17	1.00
Original			
Factor 1	.73*	-.63*	.31
Factor 2	.09	-.20*	.48
Factor 3	.09	.23*	.16
Factor 4	.07	.14	.10
Factor 5	-.18	-.05	.05

* $p < .05$

Table 5

Factor Analysis of Original BSRI Items

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Comm.
Warm	.77	.10	.04	.04	-.02	.60
Tender	.73	.21	.00	.03	-.08	.59
Gentle	.71	.18	-.19	-.04	.01	.57
Compassionate	.68	.25	-.03	.05	-.05	.53
Sympathetic	.66	.20	-.09	.02	-.22	.54
Helpful	.66	.12	-.02	.05	.20	.50
Affectionate	.66	.03	.08	.02	-.10	.45
Sensitive to needs of others	.65	.23	-.02	.00	-.15	.50
Eager to soothe hurt feelings	.63	.13	.08	.06	-.15	.40
Understanding	.62	.27	-.06	-.05	-.05	.47
Friendly	.61	.01	.15	-.11	.21	.44
Cheerful	.60	-.09	.28	-.05	.35	.58
Sincere	.60	.33	.01	-.18	-.02	.50
Happy	.53	-.02	.27	-.13	.37	.51
Likable	.49	.16	.08	.00	.40	.43
Loyal	.46	.45	.04	-.09	.03	.42
Yielding	.45	.06	-.34	.13	.10	.34

Table Continues

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Comm.
Love children	.44	-.12	.08	-.02	.09	.22
Self Sufficient	.18	.72	.07	-.05	.08	.56
Self Reliant	.19	.70	.08	.02	.08	.54
Independent	-.04	.65	.06	-.00	-.02	.43
Individualistic	.11	.50	.14	.14	-.02	.31
Reliable	.37	.45	.02	-.12	-.08	.36
Conscientious	.25	.44	-.13	-.22	.03	.32
Willing to take a stand	.16	.43	.40	.22	.13	.27
Truthful	.38	.42	.02	-.19	-.03	.35
Shy	.04	.06	.71	-.04	- .04	.52
Soft Spoken	.21	.07	.70	-.07	.12	.55
Have leadership abilities	.17	.34	.62	.08	.31	
Act as a leader	.18	.29	.60	.11	.34	.62
Dominant	.00	.29	.56	.49	.11	.65
Solemn	.01	.04	.48	.39	.13	.40
Strong Personality	.22	.31	.48	.26	.07	.45
Assertive	.06	.43	.46	.23	.11	.47
Forceful	-.14	.14	.28	.60	.00	.47
Moody	.04	-.05	.06	.53	-.43	.48

Table Continues

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Comm.
Jealous	.08	-.12	.01	.53	-.24	.36
Unpredictable	.08	.11	.10	.51	.15	.31
Secretive	.04	-.06	-.21	.50	.07	.31
Aggressive	-.04	.25	.41	.50	.30	.57
Unsystematic	.09	-.04	-.04	.42	.05	.20
Conceited	-.18	-.04	.11	.43	.29	.31
Masculine	.32	.14	-.09	.24	.68	.65
Feminine	.46	-.03	.17	-.09	-.65	.66
Athletic	.09	-.02	.22	.16	.57	.40
Competitive	.00	.14	.21	.26	.48	.36

Table 6

Regression Summary Table - Experimental Factors

Factor	Number Vars.	Variables in Model	R^2	Cumulative R^2	Zero-Order r
Relationship Orient.	1	Agreeableness	.1099	.1099	.33*
	2	Extraversion	.0558	.1657	.26*
	3	Neuroticism	.0629	.2286	.10*
	4	Conscientious	.0172	.2458	.16*
	5	Openness	.0089	.25	.18*
Interpersonal Effective.	1	Agreeableness	.2988	.2988	-.55*
	2	Openness	.0141	.3129	.17*
Emotional Sensitivity	1	Openness	.0669	.066	.26*
	2	Conscientious	.0505	.1174	.18*
	3	(Extraversion)	.0131	.130	.20*
	4	Neuroticism/ Agreeableness	.0093	.139	-.16*

* $p < .05$

Table 7

Regression Summary Table - Original BSRI Factors

Factor	Number of Variables	Variables in Model	R^2	Cumulative R^2	Zero Order r
Expressiveness	1	Agreeableness	.2436	.2436	.49*
	2	Extraversion	.1034	.3470	.36*
	3	Neuroticism	.0285	.375	-.03
Autonomy	1	Conscientious	.1483	.1483	.39*
	2	Openness	.0292	.1775	.11*
	3	Agreeableness	.0179	.1954	-.01
	4	Neuroticism	.0159	.2113	-.23*
	5	Extraversion	.0239	.2352	-.03
Leadership	1	Extraversion	.2931	.2931	.54*
	2	Agreeableness	.0575	.3506	-.19*
	3	Neuroticism	.0251	.3757	-.22*
	4	Openness	.0088	.3845	-.02

Table Continues

Factor	Number of Variables	Variables in Model	R^2	Cumulative R^2	Zero Order r
Emotional Imm.	1	Agreeableness	.2161	.2161	-.46*
	2	Neuroticism	.0966	.3127	.42*
	3	Conscientious	.0385	.3512	-.38*
	4	Extraversion	.0312	.3824	.05
Masculinity	1	Neuroticism	.1561	.1561	-.40*
	2	Agreeableness	.0540	.2101	-.13*
	3	Openness	.0208	.2309	-.19*
	4	Extraversion	.0111	.2420	.15*

*$p < .05$

APPENDIX A

Prospectus

UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

FEMININITY REFORMULATED: THE BIG FIVE AND GENDER ROLE

Dissertation Proposal

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirement for the

degree of

Doctor of Philosophy

By

Celia Ann Burke
Norman, Oklahoma
April 30, 1997

CHAPTER ONE

Introduction

Gender differences in personality have been the subject of widespread attention in both the empirical and conceptual literature over the past several decades. However, clear theoretical definitions of masculinity and femininity, as well as adequate measurement of these constructs continue to elude psychologists and remain the subject of contentious controversies. The formulation of the psychological constructs masculinity and femininity have evolved from a unidimensional construct measured on a bipolar scale, to the conceptualization of masculinity and femininity as separate and independent dimensions. This separation of the dimensions allowed the combination of masculine and feminine traits within a single individual, rather than placement on a single continuum with masculinity at one extreme, and femininity at the other. Persons high on both dimensions of masculinity and femininity are classified as androgynous, a combination of the favorable traits attributed to both genders such as assertiveness and competence, coupled with compassion, warmth and emotional expressiveness. While, this capacity to combine masculine and feminine traits is far more accurate, descriptive, and allows for greater flexibility in the conceptualization of gender role orientation, instruments based on this formulation have some serious limitations.

Background of the Problem

The Bem Sex Role Inventory (BSRI; Bem, 1974) and the Personal Attributes Questionnaire (PAQ; Spence & Helmreich, 1978) are the two most widely recognized gender role measures emerging from the view that masculinity and femininity are orthogonal dimensions, and continue to be widely used. Both of these instruments were

based on traits or stereotypes, judged by college students, as being standards of desirable behavior for men and women. Since the BSRI (Bem, 1974) was the first of these instruments to be developed, and is used more prevalently than the PAQ, the BSRI (Bem, 1974) was targeted for study. Three scales were constructed for the BSRI (Bem, 1974), the Masculinity Scale, the Femininity Scale, and the Social Desirability Scale comprised of 20 personality characteristics each. The Social Desirability Scale was included as a method of identifying a social desirability response set, and consisted of both positive and negative personality traits that were perceived as being neither masculine or feminine, or neutral. The single underlying theory used in the initial formulation of this instrument was the perspective that masculinity was associated with an "instrumental" orientation, a cognitive focus on getting the job done, while femininity was associated with an "expressive" orientation, or an affective concern for the welfare of others.

Some of the most serious criticisms of the BSRI include Bem's (1974) failure to define the domains of masculinity and femininity and construct items consistent with these definitions. Additionally, she has used behaviors and personality characteristics interchangeably in her formulation of sex-typed traits, and has utilized desirability ratings to assess self-ratings (Pedhazur & Tetenbaum, 1979). Furthermore, Bem (1974) provided no factorial evidence that the Masculinity and Femininity scales are unidimensional, an important consideration since they are summated rating scales. To the contrary, there is a body of current evidence that the scales are, in fact, multidimensional (i.e., Adams & Scherer, 1985, Brems & Johnson, 1990; McCreary & Steinberg, 1992). More recently, Ballard-Reisch and Elton (1992) have presented evidence that many of the characteristics

included on the Masculinity and Femininity Scales do not constitute positive or desirable items.

Perhaps one of the most important criticisms regards the theoretical framework of the BSRI, and its failure to separate the idea of dependency and emotionality from expressiveness (Gill, Stockard, Johnson & Williams, 1987). Gil et al. (1987) have refined the definitions of instrumental and expressive orientations originally set forth by Talcott Parsons in the 1950's. This definition of expressiveness rejects the stereotypical notion of femininity as being emotional, passive, and dependent, but retains the positive aspects of interdependence and the capacity to relate to others. In this formulation, the possession of instrumental competence does not preclude expressive skills, nor does the ability to relate expressively preempt one from being instrumentally successful.

Furthermore, Gill et al. (1987) distinguished the notions of emotionality and expressiveness. Although expressiveness involves the ability to be emotionally responsive, it is not synonymous with being emotional or emotionally labile. In our culture women are socialized to "resonate with, cope with, and even define emotions for self and others, but this is hardly the same as being emotional" (Gill et al. 1987, p. 380). At times, it is of greater emotional help to another person to suppress one's own emotions. This ability to gauge what is needed by another person, at a given time, is included in this definition of expressiveness.

Examination of the items on the BSRI revealed many items that do not fit these theoretical formulations of the instrumental and expressive domains. Items on the BSRI Femininity scale such as "childlike", "shy", and "yielding" are not representative of the

expressive domain and confound the notions of expressiveness, emotionality, and dependence.

Gill et al. (1987) garnered empirical support of this theoretical formulation by separating the positive and negative aspects of instrumentality and expressiveness, as well as dependency from independence. The largest and only consistent measured gender difference observed across a number of samples on these dimensions was that women reported significantly higher levels of expressive personality traits than men. Women did not consistently rate themselves lower on the instrumentality and autonomy scales, and in fact had higher scores than males on some dimensions. These findings are especially noteworthy due to the connection of instrumentality and autonomy with the male gender role at the expense of an expressive orientation.

Gill et al. (1987) were also critical of previous measures of instrumentality and expressiveness because they were not unidimensional and were based on the very stereotypes that the women's movement has sought to overcome. These authors advocated measuring actual differences in the self-definitions of men and women, rather than measuring individuals' conformity to gender role stereotypes of masculinity and femininity. Furthermore, they identified the heterogeneity of the BSRI and PAQ femininity scales, which intermixes negative instrumental, dependent, and expressive items as a culprit in the failure of the Femininity scales to correlate with mental health and happiness. These results, if not critically examined, may advance the view that women should abandon a relational orientation in order to maximize their mental health and happiness.

A recent review of factor analytic studies conducted on the BSRI and the PAQ confirms critics' contentions that the Masculinity and Femininity Scales are multidimensional, resulting in as many as nine factors. In all of the studies reviewed, an Expressiveness factor emerged which was labeled differently by the various authors, but retained the same basic core of items. The feminine items "flatterable", "gullible", "childlike", " yielding",shy", "soft spoken", and "does not use harsh language" did not load on the Expressiveness factor in the vast majority of the studies. Three additional factors consistently emerged in the factor solution in the majority of studies: (a) an Instrumental factor, (b) an Autonomy factor, and (c) a factor denoting gender or sex. These studies provide strong empirical support that both the Masculinity and Femininity scales are multidimensional. This body of literature also provides support for the contention that expressiveness has been confounded with dependency on the Femininity scale of the BSRI (Gil et al., 1987). This failure of the Femininity scale to provide a pure measure of expressiveness strengthens the evidence that the lack of association between femininity and indices of psychological health and adjustment may be a result of this heterogeneity.

Many researchers and theorists have proposed alternative methods of measuring gender role orientation and the constructs masculinity and femininity. Anastasi (1988) asserted that it would be more productive to measure men and women on clearly defined and empirically established personality traits in lieu of adherence to narrowly defined cultural stereotypes as utilized in the current gender role instruments. The Revised NEO Personality Inventory (NEO-PI-R; Costa & McCrae, 1992) is an example of an instrument that measures empirically established personality traits, and according to the

Twelfth Mental Measurements Yearbook (Conoley, Impara & Murphy, 1995), is among the most researched personality instruments, with 50 cited references. Additionally, the Five Factor Model of Personality, upon which the NEO-PI was built, has also been well-validated. Using the NEO-PI as a marker for the Big Five, some semblance of the five-factor model has been demonstrated in nearly all of the most widely used modern personality questionnaires.

Some researchers believe that the Big Five personality domains can be availed to untangle the complex relationships among masculinity, femininity, and psychological adjustment. Lippa (1991;1995) has been a forerunner in this area, and has demonstrated considerable overlap between masculinity and femininity as measured by the PAQ and BSRI and the Big Five personality domains: Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness. Factor analyses indicated that Neuroticism was negatively related to masculinity, while Extraversion, and Openness were positively related. Femininity was primarily related to both Agreeableness and Conscientiousness. While this research signals an important beginning, more research is necessary to establish evidence that this is indeed a fruitful direction.

In examining the gender role literature, it has become painfully clear that the established methods of measuring gender role are flawed and incomplete. It appears that the BSRI and the PAQ have failed to capture some of the more adaptive dimensions of femininity in their item construction. Based on the evidence presented by Gil et al. (1987) and Goleman (1995), it appears that the most glaring omission from these gender role instruments is encompassed by the notion of emotional intelligence. Goleman (1995) in his book entitled Emotional Intelligence, cited evidence of the benefits of being able to

read feelings from nonverbal cues. These benefits include being better adjusted emotionally, more popular, more outgoing, and not surprisingly, more sensitive. He also stated that, in general, women are better at this kind of empathy than men. For this reason, attributes defined by Goleman as elements of emotional intelligence have been added to the items comprising the BSRI.

Another dimension believed to be lacking in the BSRI is a dimension representing the capacity of women to be interdependent, or cooperative and collaborative, in contrast to the masculine value of being autonomous and independent. The ability to work productively and effectively with other people is a skill that is currently in high demand in our service oriented culture. Adding these items to the BSRI on a trial basis will test the hypothesis that these elements are included in current definitions of femininity.

Statement of the Problem

The lack of clear theoretical definitions of the psychological constructs of masculinity and femininity, as well as the heterogeneity of the Masculinity and Femininity Scales as measured by the BSRI (Bem, 1974) are impeding research focused on delineating the adaptive aspects of gender role orientation, particularly femininity. The purpose of this study is to first expand the construct of femininity by adding items that include dimensions of emotional intelligence and interpersonal effectiveness, and then to relate the underlying dimensions of gender role to well-established dimensions of personality. It is believed that measuring participants' self-ratings on personality traits will render a more accurate measure of gender role than adherence to desirability ratings and gender stereotypes. Additionally, it is hypothesized that the more positive aspects of femininity will be identified through factor analysis, eliminating the contamination of

items low in social desirability that were used in the BSRI Femininity scale in order to balance social desirability between the Masculine and Feminine scales, and that do not conform to current theoretical formulations of femininity. Research utilizing the BSRI has largely failed to elucidate the positive aspects of the feminine gender role orientation with demonstrated lack of association with measures of self esteem and adjustment (Bassoff & Glass, 1982; Taylor & Hall, 1982; Whitley, 1984, 1988).

Research Questions

1. What are the underlying structural dimensions of the BSRI?
2. Are there dimensions of the femininity which are not represented on the BSRI?
3. How do the underlying structural dimensions of masculinity and femininity relate to the five major personality domains represented by the NEO-PI-R?

CHAPTER TWO

FEMININITY REFORMULATED: THE BIG FIVE AND GENDER ROLE

Gender differences in personality have been the subject of widespread attention in both the empirical and conceptual literature over the past several decades. However, clear theoretical definitions of masculinity and femininity, as well as adequate measurement of these constructs continue to elude psychologists and remain the subject of contentious controversies. Terman and Miles (1936) pioneered the first instrument designed to measure the construct of masculinity-femininity (M-F), using empirical selection of items based on significant differences in responses given by males and females. Although they believed masculinity and femininity to be a central trait of temperament, around which the rest of personality was formed, they offered no theory-based definitions of this trait and conceded that the measurement process was crude and imprecise. Relying on domains of behavior with demonstrated sex differences, Terman and Miles sought to increase the generality of the measurement of M-F by including as many areas as possible on which the sexes differed. Although M-F was measured as a unidimensional construct on a bipolar scale, they recognized that the use of profile scoring on the individual exercises might provide more predictive and explanatory power than using a single total score. Additionally, they believed that the low intercorrelations between the exercises or subtests failed to support a search for general factors through factor analysis. However, Ford and Taylor (1952) later performed factor analyses which identified several relatively independent item clusters within the Terman-Miles Attitude-Interest Analysis Test (M-F Test), but these clusters were rarely used for scoring or interpretation. Thus, while preliminary evidence of the multidimensionality of the construct existed in these early

efforts, Terman and Miles set forth a template for bipolar measurement which subsequent researchers followed.

Despite differences in emphasis and content, such as identifying sexual inversion or sexual deviates from normals, second generation instruments constructed in the 1940's and 1950's followed the Terman and Miles model utilizing empirical item selection, criterion keying, and incorporation of responses into a global score as reflected in the M-F scales of the Minnesota Multiphasic Personality Inventory (MMPI) and California Personality Inventory (CPI). Difficulties with these scales include the fact that identical scores can reflect different contributing factors and, further, that scoring dichotomizes individuals into mutually exclusive groups, negating the possible existence of some combination of masculine and feminine traits.

Evidence for multidimensionality of the M-F construct began to mount with subsequent factor analyses of the Terman-Miles Attitude-Interest Analysis Test (M-F Test), MMPI, and other instruments, identifying relatively independent item clusters. The viability of the bipolarity of M-F was also beginning to be called into question as differentiation of the sexes became less clear at higher education levels, with both men and women giving responses characteristic of the other sex, suggesting an intercorrelation much less than the hypothesized -1.00 (Anastasi, 1988). Masculine and feminine interests were forming separate categories or factors, not opposite ends of a single bipolar continuum (Constantinople, 1973). Constantinople (1973) reported further evidence of the multidimensionality of the M-F construct derived from correlational studies of various gender role instruments in use at that time. Common variance between any two tests was very low, suggesting that the universe of known sex differences constituted more than one

underlying dimension. Furthermore, application of the Terman and Miles bipolar scoring method to both sexes led to the conclusion that a feminine woman is not the same as a feminine man, necessitating the development of separate scoring keys for the two sexes (Goodenough, 1946, cited in Constantinople, 1973). Also contrary to the bipolarity assumption was research utilizing adjectives and semantic differential scales, reporting correlations between the ratings of the "most masculine person" and "most feminine person" of .42, and 17 common adjectives (Jenkins and Vroegh, 1969, cited in Constantinople, 1973). Finally, second generation instruments lacked any theoretical explication that tied together the sex differences on heterogenous content.

Against this backdrop of limitations, third generation instruments developed in the 1970's moved away from conceptualizations of masculinity and femininity as bipolar extremes of a single continuum. Instead, instruments developed during this period represented masculinity and femininity as separate and independent dimensions. This view allowed for the formulation of a third category, androgyny, describing individuals exhibiting high levels of both masculine and feminine traits. The two most widely recognized measures emerging from this view of gender roles were the Bem Sex Role Inventory (BSRI; Bem, 1974) and the Personal Attributes Questionnaire (PAQ; Spence & Helmreich, 1978). These third generation instruments differed from their precursors in a number of important ways. First, items were selected on the basis of judges' ratings of their desirability for males or females, and their agreement with generally held stereotypes of men and women in our society. Second, persons high on both dimensions of masculinity and femininity are classified androgynous, a combination of the favorable traits attributed to both genders such as assertiveness and competence, coupled with

compassion, warmth, and emotional expressiveness. Finally, continuing efforts are being made to establish multidimensionality of the constructs through factor analysis.

The Bem Sex Role Inventory (BSRI)

In the early 1970's, conditions were favorable for the concept of androgyny. Several researchers simultaneously and independently began to question the currently held assumptions regarding gender role measurement. Sandra Lipsitz Bem (1974) led the way with her research that began in 1971, culminating in the first instrument designed to measure androgyny. She utilized standardized differences between femininity and masculinity scores to identify three types of people: (a) individuals reporting primarily feminine characteristics; (b) those reporting primarily masculine characteristics; and (c) those reporting a balance of masculine and feminine traits or "androgynous" individuals. The only underlying theory initially used in the formulation of this empirically derived instrument was the perspective that masculinity and femininity represented two complementary domains of positive traits and behaviors, and that a person with a balance of these traits would likely be more adaptive than a person who displayed only sex appropriate behaviors. Masculinity was associated with an "instrumental" orientation, a cognitive focus on getting the job done, while femininity was associated with an "expressive" orientation , or an affective concern for the welfare of others. The Bem Sex Role Inventory (BSRI) was constructed with a Masculinity scale, a Femininity scale, and a Social Desirability scale comprised of 20 personality characteristics each. Since Bem (1974) conceptualized the sex-typed person as someone who has internalized society's sex-typed standards of desirable behavior for men and women, the characteristics were selected on the basis of sex-typed desirability, and not on differential endorsement by

males and females as in previous gender role instruments. Bem and several students compiled a pool of 200 characteristics that were deemed positive in value, and either masculine or feminine in tone. In preparation for the social desirability scale, 200 additional items were selected which were seen as "neutral" (neither masculine or feminine), half of which were positive in value, and half negative in value. Two different samples, consisting of 40 and 60 Stanford undergraduate students, then rated on a 7-point scale how desirable a characteristic was for either a male or female in American society. Participants were asked to rate the 400 characteristics for a man or a woman, but not both. A personality characteristic qualified as masculine if it was independently judged by both males and females to be significantly more desirable for a man than a woman, and conversely, an item qualified as feminine if it was judged as significantly more desirable for a woman than a man. A characteristic qualified for the Social Desirability scale if it was judged by both males and females to be no more desirable for one sex than the other, and if judges did not differ significantly in their overall desirability judgments of the trait. The Social Desirability Scale consists of ten positive and ten negative personality traits.

Gender Schema Theory. Although initial development of the BSRI (Bem, 1974) was largely empirical, Bem later expanded her theory of sex typing which now undergirds the instrument. Bem (1984) has stated that:

> Ironically, one of my major purposes in highlighting androgyny in the first place was to clarify the process of sex typing, to emphasize that the important characteristic of the sex-typed individual is not the possession of sex-typed attributes, but the readiness to sort information on the basis of gender rather than other available dimensions. The concept of androgyny provided precisely the

> right contrast group to highlight this aspect of sex typing. For the first time, sex-typed individuals could now be contrasted with a group whose thinking and behavior were relatively unconstrained by cultural stereotypes of gender appropriateness. For the first time, sex-typed individuals could also be contrasted with a group whose very existence challenged the dominant assumption that to be anything other than conventionally sex-typed was evidence of pathology (Bem, 1984, p.191)

Bem, with her program of empirical research, then set out to illuminate this process. Bem (1981) garnered support for the hypothesis that sex-typed individuals have a greater readiness than androgynous or undifferentiated individuals to process information about the self in terms of gender. The subjects were 48 male and 48 female undergraduates, who were categorized into sex- typed, cross sex-typed, androgynous, and undifferentiated classifications, and then shown the 60 attributes on the BSRI on a screen, one at a time. They were instructed to push one of two buttons labeled "Me" or "Not Me" to indicate whether the item described them, and the amount of time it took to make a decision about each attribute (response latency) was measured. Sex-typed individuals responded significantly faster than any of the other groups when endorsing attributes appropriate for their sex, and rejecting those that were inappropriate for their sex (Bem, 1981). She then used recall of of words presented in random order to substantiate her hypothesis that sex- typed individuals would use clusters of items that were linked in memory through gender schema. Her results confirmed that sex-typed individuals were significantly more likely to cluster words on the basis of gender than androgynous, undifferentiated, or cross-sex-typed individuals (Bem, 1981).

The next project (Frable & Bem, 1985) sought to determine whether sex-typed individuals were more likely to organize other people into masculine and feminine categories. Utilizing audio- taped recordings of carefully scripted and rehearsed discussions of three males and three females discussing universal aspects of college life, while simultaneously displaying each speaker's photograph, subjects were asked to recall 'who said what'. Of interest were within-sex errors, which would suggest that the subject was confusing members of a given sex with each other, indicating that the subject was sorting people on the basis of gender rather than some other dimension. The results of this study indicated that sex-typed subjects were significantly more likely to confuse members of the opposite sex with one another. Why sex-typed members did not confuse members of their own sex was not clear, but these results did support the contention that sex typed individuals were spontaneously inclined to organize other persons into classes by gender (Frable & Bem, 1985).

Citing all the evidence that Bem has garnered in support of her gender schema theory is well beyond the scope of this discussion, but it is apparent that she has produced substantial empirical support for her contention that sex-typed individuals engage in gender-schematic processing to a greater extent than other individuals, and individuals who engage in a high level of gender-schematic processing engage in a high level of gender stereotyped behavior. Bem believes that gender schematicity is responsible for creating and maintaining many gender differences that currently exist in our society, and that focusing on the concept of androgyny averts attention away from the extent to which gender organizes both our perceptions and our social order (Bem, 1984). In becoming cognizant of gender-schematic processing, we become aware of the application of gender

schema in situations where other schemata should have priority. Bem (1984) contends that "if gender schema has a political message, it is not that the individual should be androgynous. Rather, it is that the network of associations constituting the gender schema ought to become more limited in scope, and society ought to temper its insistence on the ubiquitous functional importance of the gender dichotomy. In short, human behaviors and personality attributes should no longer be linked with gender, and society should stop projecting gender into situations irrelevant to genitalia....The feminist prescription, then, is not that the individual be androgynous, but that the society be gender aschematic"(Bem, 1984, p.222).

The Personal Attributes Questionnaire (PAQ)

Before engaging in a more general discussion of the limitations of the BSRI (Bem, 1974), it is necessary to consider the development of the other major gender role instrument, and the contributions of its authors. In 1974, Spence, Helmreich, and Stapp published their instrument for assessing androgyny, the Personal Attributes Questionnaire (PAQ). Spence and her colleagues intended to tap only certain aspects of gender roles, namely self assertive-instrumental traits and interpersonal-expressive traits, not global masculinity and femininity. Their initial item pool was largely drawn from a list of bipolar items developed by Rosenkrantz, Vogel, Bee, Broverman, and Broverman (1968) to tap descriptive and prescriptive stereotypes. This pool of 138 items was given to three samples of female and male undergraduates. Two of the samples were instructed to rate the typical man and woman (descriptive stereotypes) and the third sample was instructed to rate the ideal man and woman (prescriptive stereotypes). The authors then chose 55 items which showed significant stereotypes for both male and female subjects in the

typical condition. These items were then divided into three subscales based on ratings in the ideal condition. The Female-valued (F) scale had 18 items for which mean ratings of both ideal male and ideal female were toward the feminine end of the bipolar scale (i.e., emotional, understanding, devotes self to others, gentle, kind). The Male-Valued (M) Scale had 23 items for which mean ratings of both the ideal male and ideal female were toward the masculine pole (i.e., independent, active, competitive, makes decisions easily, self confident). The Sex-Specific (M-F) Scale had 13 items for which ratings of the ideal female were toward the feminine pole, and ratings of the ideal male were toward the masculine pole (i.e., needs approval, feelings hurt, cries easily vs. aggressive, dominant, sees self running show) . Items on the M and F scales could then be described as tapping traits that are socially desirable for both sexes but more prevalent in males and females respectively. In 1978 Spence and Helmreich developed a shorter version of the PAQ, eliminating items that did not clearly relate to instrumental and expressive traits. This 24-item scale, which is now the official version of the PAQ, was constructed by selecting eight items from each of the original three scales. Although Bem (1974) was the first to publish a gender role instrument measuring androgyny, Spence et al. (1975) were the first to present a four group typology of gender roles, finding Bem's (1974) classification of androgyny too heterogeneous. Bem's formulation of an androgynous individual was one demonstrating a balance of masculine and feminine traits; this could be a person with high or low endorsements of both masculine and feminine traits. In Spence et al.'s (1975) typology, the term androgynous was reserved only for individuals who were high in both masculinity and femininity; those low in both masculinity and femininity were classified as "undifferentiated". Differences in the expected direction were later observed in the

self esteem and social behavior of individuals who scored high on both the masculinity and femininity scales (the androgynous high-highs) and those who scored low on both (the undifferentiated low-lows), despite the small t-ratios attained from both groups (Spence et al. 1975). Accepting Spence et al.'s challenge to her androgyny formulation, Bem incorporated this four group typology into her work and the use of the median split method rather than the t-ratio method of establishing gender role classification. In doing so, Bem obscured the original "balance" theoretical rationale behind the BSRI which was more evident with the t-ratio method (Bem, 1977; 1984).

Limitations of the BSRI

Challenges to and criticisms of the BSRI did not stop with the operational definition of androgyny. Bem (1974) has been criticized for her failure to define the domains of masculinity and femininity and construct items consistent with these definitions. Instead, she utilized a strictly empirical approach in her construction and validation of items (Pedhazur & Tetenbaum, 1979; Gill, Stockard, Johnson and Williams, 1987). It also appears that within the gender role domain, which is already fraught with lack of clarity and definition, she has used "behaviors" and "personality traits" interchangeably. This problem is evident in her definition of a sex-typed person as "someone who has internalized society's sex-typed standards of desirable *behavior* for men and women, these *personality characteristics* were selected as masculine or feminine on the basis of sex-typed social desirability..."(Bem, 1974; Pedhazur & Tetenbaum, 1979). Pedhazur and Tetenbaum (1979) also objected to Bem's use of 400 independent t-tests to establish significantly different endorsement rates without any consideration of probability pyramiding, the lack of unidimensionality of the Masculinity and Femininity

scales which are used as summated rating scales, and the use of desirability ratings to assess self ratings. Furthermore, Ballard-Reisch and Elton (1992) have presented evidence that many of the characteristics included on the Masculinity and Femininity scales do not constitute positive or desirable items.

The Pedhazur and Tetenbaum Critique. In order to address their concerns regarding probability pyramiding, Pedhazur and Tetenbaum (1979) performed a stepwise discriminant analysis to determine the results that Bem might have obtained had she performed a multivariate analysis in lieu of the 400 independent t-tests. The first trait to enter into the stepwise analysis was Masculine, followed by Feminine. The remaining 58 traits added very little to the discrimination between groups. The functions based on the 60 traits provided 89% correct classification, as compared to 87% correct classification for the traits Masculine and Feminine only.

Bem (1974) provided no factorial evidence of the unidimensionality of her masculinity and femininity scales, and to the contrary, there is a body of current evidence that the scales are, in fact, multidimensional (Adams & Sherer, 1985; Antill & Cunningham, 1982; Antill & Russell, 1982; Blanchard-Fields, Bledsoe, 1983; Brems & Johnson, 1990; Collins, Waters & Waters, 1979; Feldman, Biringen, and Nash, 1981; Gaa, Liberman & Edwards, 1979; Gaudrea, P. 1977; Gruber & Powers, 1982; Lubinski, Tellegen & Butcher, 1981; Martin & Ramanaiah, 1988; McCreary & Steinberg, 1992, Moreland, Gulanick, Montague & Harren; 1978; Popiel & de Lisi, 1984; Pearson, 1980; Ramaniah & Martin, 1984; Ratliff & Conley, 1981; Ruch, 1984; Suhrer-Roussel & Hertzog, 1994; Waters & Popovich, 1986; Waters, Waters & Pincus, 1977; Whetton & Swindells, 1977). Pedhazur and Tetenbaum (1979) conducted a factor analysis to study

the dimensionality of the BSRI, which resulted in three factors, but which did not parallel the three scales created by Bem, Masculinity, Femininity and Social Desirability. The first factor contained most of the masculine traits, but would probably be more accurately named Instrumentality or Assertiveness. The remaining two factors contain a mixture of feminine and neutral characteristics, with one composed of mainly desirable traits, and the other relatively undesirable traits. The second factor was named Interpersonal Sensitivity and the third, Immaturity. These results suggest that it would be inappropriate to treat the 20 feminine traits and 20 neutral traits as two separate unidimensional sets.

Pedhazur and Tetenbaum (1979) also took issue with deriving subscales for self-ratings on the basis of analysis of desirability ratings for men and women in American society. Due to the questionable validity of the Social Desirability Scale, they administered only the Masculine and Feminine scales (constituting 20 items each) to a sample of graduate students in education, requesting self-ratings. Factor analysis of the self-ratings resulted in four interpretable factors: (1) assertiveness, (2) interpersonal sensitivity, (3) self-sufficiency, and (4) masculinity-femininity. This factor structure differs from the factor structure obtained from desirability ratings, but in reality cannot be compared due to the use of different samples and the inclusion of the Social Desirability scale in the desirability ratings. However, it is reasonable to suspect that the dimensions that underlie trait ratings would differ when the task is to rate oneself, as opposed to the task of rating the desirability of traits for an abstract referent (i.e., an American man and American woman).

In order to address additional concerns regarding the desirability ratings of the BSRI traits, Pedhazur and Tetenbaum administered the BSRI to 1,464 graduate students.

The students were instructed to rate the desirability of each trait for a man or a woman in American society, instructions identical to those on the BSRI. The masculine traits were generally perceived as positive when applied to a man, and slightly lower when applied to an adult. However, the mean desirability ratings for feminine traits applied to a woman tended to be lower than masculine traits applied to a man. Moreover, some of the feminine items (e.g. Shy, Gullible and Childlike) were perceived as relatively undesirable or negative when applied to a man, an adult, or a woman. These findings challenge Bem's (1974) contention that both the masculine and feminine traits are positive or socially desirable. Bem indicated that she included 20 neutral items, 10 positive and 10 negative, as a means of monitoring a potential social desirability response set in responses to the masculine and feminine items. In Pedhazur and Tetenbaum's (1979) sample, the mean ratings of the feminine traits Gullible and Childlike were lower than the mean ratings of the negative neutral items such as Theatrical, Unpredictable, Jealous, and Secretive.

Finally, Pedhazur and Tetenbaum (1979) criticized Bem's adoption of the median split method of classification. According to Pedhazur and Tetenbaum (1979), the median split is one of the crudest and least useful methods for arriving at a typology because there is the risk of classifying people with relatively similar scores as being different types, and people with dissimilar scores as being the same type. Furthermore, a person may be classified as one type or another as a function of the group sampled. In conclusion, Pedhazur and Tetenbaum (1979) argued that the use of median splits was inappropriate given the factorial complexity of the scales.

Desirability of Items

In a more recent study, the appropriateness of two major assumptions of the BSRI were explored: (a) the BSRI is comprised of positive personality characteristics deemed more desirable for one gender than the other, and (b) these characteristics are actually measures of gender roles. Ballard-Reisch and Elton (1992) demonstrated that these assumptions were not met. Only thirty items were rated positive, nine from the masculinity scale, and eleven from the femininity scale. Additionally, in a replication factor analysis, only four items from the original masculinity scale retained a loading on the masculinity scale, were considered more desirable for a man than a woman, and were assessed as positive in nature. Only two items from the femininity scale met these same criteria. Clearly, neither the original factor structure of the BSRI, nor the assumption that the BSRI contains positive masculine and feminine traits were supported in this study. Furthermore, these findings provide additional support for the limitations regarding the desirability of traits and factor structure identified by Pedhazur and Tetenbaum (1979).

Bem's Response. Bem (1979) responded to this critique with further explication and elaboration of the theoretical underpinnings of the BSRI which guided her decisions in its construction. She identified two basic theoretical assumptions: (a) largely as a result of historical accident, the culture has clustered a quite heterogeneous collection of attributes into two mutually exclusive categories, each considered more characteristic and more desirable for one sex than the other, and which are well-known by virtually every member of the culture, and (b) individuals differ from each other in the extent to which they utilize these cultural definitions as idealized standards of femininity and masculinity against which their own personality and behavior are to be evaluated. Bem (1979)

explained that in contrast to self-reports on these items, these cultural definitions were expected to be widely known and to be quite stable across time. This assumption implies that virtually any sample of American adults would be qualified to serve as conveyors of this information.

In response to the criticisms of the atheoretical nature of the BSRI, Bem (1979) asserted that the theory does not specify the particular content of these definitions because it varies from culture to culture, and that it is a theory of *process* not *content*. As for the objection that the M and F scales are not unidimensional, Bem contends that Pedhazur and Tetenbaum (1979) have put the "methodological cart before the theoretical horse....If the culture groups a hodgepodge of attributes into a category it calls masculinity and femininity, then that hodgepodge is what sex-typed individuals will take as their standard for behavior. The purpose of the BSRI is to discriminate between those individuals for whom the hodgepodge does form a unitary cluster and for those for whom it does not" (Bem ,1979, p. 1049).

In justification of her use of item-by-item t-tests, Bem (1979) argued that this procedure is a common practice in test construction and cited Anastasi (1968) to support her position. She questioned Pedhazur and Tetenbaum's use of stepwise discriminant analysis, since it weights each item only on the amount of surplus discriminating power it has over and above the items already entered into the equation, and is extremely sensitive to items in the pool. Bem (1979) asserted that the discriminant analysis would have resulted in remarkably different weightings had the items masculine and feminine been excluded from the analysis. Furthermore, she stated that she minimized the effect of chance findings by having the initial list of 200 personality characteristics rated by four

independent groups of judges. An item was determined to be masculine or feminine only if it was rated as significantly more desirable for one sex than the other by all four groups of judges. She estimated the probability of this occurring by chance for any individual item as 1/160,000 (Bem, 1979).

Bem also disagreed that the factor analysis resulting in four factors (Pedhazur & Tetenbaum, 1979) was "devastating" to the BSRI. She asserted that the theory underlying the BSRI does not require that the constructs of masculinity and femininity be unidimensional, but conceded that the results do suggest ways in which the BSRI might be refined. A short version of the BSRI has already been developed which excludes the items "masculine" and "feminine", as well as some of the items with low social desirability and low correlations with the total Femininity score, such as "yielding", "shy", and "soft spoken." Bem explained that these items low in desirability were included in the BSRI to balance the overall social desirability of the Feminine and Masculine scales, but as the concept of androgyny has evolved, the inclusion of these undesirable attributes has seemed increasingly inappropriate. The short version of the BSRI contains the most desirable personality characteristics, with variances of the social desirability ratings for both scales approximately equal. However, subsequent research has demonstrated superior discriminating power with the longer version (Gruber & Powers, 1982). The original, longer form is the official version of the BSRI and the one that is most used in research today. It is among the five most frequently used psychological tests reviewed in the Mental Measurements Yearbook (Mitchell, 1985; Lenney, 1991).

Definition of Expressiveness. Perhaps one of the most important criticisms of the BSRI leveled by Gill, Stockard, Johnson, and Williams (1987) has been its failure to separate the idea of dependency and emotionality from expressiveness. Gill et al. (1987) have refined the definitions of instrumental and expressive orientations that were first set forth by Talcott Parsons in the 1950's. They have defined an "instrumental" orientation as concern with the attainment of goals external to the interaction between people, and an "expressive" orientation as facilitating the interaction process itself (Johnson, Stockard, Acker & Naffziger, 1975). Manipulating objects, the environment, and even people is the driving force behind an instrumental orientation. Instrumental interactions with people usually take the form of formal authority and technical control, and are oriented toward objective ends. Interpersonal attitudes such as approval, respect, and esteem prevail, tempered by the tendency to be "affectively neutral" (Gill et al., 1987, p. 380).

In contrast, understanding and dealing with emotions in oneself and others is the mainstay of an "expressive" orientation. Expressive interactions among people involve tension management and motivational control, as well as a focus on the system of interaction itself. The rewards of expressive interaction are more affectively charged and result in love and friendship. This definition of expressiveness rejects the stereotypical notion of femininity as being emotional, passive, and dependent, but retains the positive aspects of "interdependence and relationality"(Gill et al. 1987, p. 380). This definition of expressiveness is strengthened by more current personality theorists such as Chodorow (1978), who has connected women's more relational orientation to the experience of mothering. Similarly, Gilligan (1982) has formulated women's views of morality in terms of "responsibility" and "interdependence," in contrast to men's views of morality as

"rights" and "noninterference." In this conceptualization, expressiveness is not the inverse of instrumentality; rather they form two separate dimensions, each with a positive and negative pole. In this formulation, the possession of instrumental competence does not preclude expressive skills, nor does the ability to relate expressively preempt one from being instrumentally successful.

Furthermore, Gill et al. (1987) distinguished the notions of emotionality and expressiveness. Although expressiveness involves the ability to be affectively astute, it is not synonymous with being emotional or emotionally labile. In our culture women are socialized to "resonate with, cope with, and even define emotions for self and others, but this is hardly the same as *being* emotional" (Gill et al. 1987, p. 380). At times, as is well known in the counseling profession, it is of greater emotional help to another person to suppress one's own emotions. This ability to gauge what is needed by another person, at a given time, is included in this definition of expressiveness.

Given these considerations, expressiveness and instrumentality are both "active" orientations. Expressiveness is not characterized by passivity and dependence, just as activity and independence are not solely instrumental. Unexamined acceptance of gender stereotypes can lead to confounding expressiveness with dependence and passivity. However, expressiveness relies on a stance of interdependence, rather than dependence, and can be very proactive when one considers the courage and initiative it takes to confront the confusing world of emotions. This position is much different than simply responding to and being dependent upon others. The tendency to view seeking affective response as dependency seems to stem from the belief that instrumental achievers are self-determining, and not oriented to the responses of others. In reality, we are all

dependent on the responses of others in our quest for social rewards. It is the nature of the rewards sought which tends to differentiate men and women (Johnson et al., 1975).

Examination of the items on the BSRI and PAQ revealed many items that do not fit with these theoretical formulations of the instrumental and expressive domains. Items on the BSRI Femininity scale such as "childlike", "shy", and "yielding", are not representative of the expressive domain, and confound the notions of expressiveness, emotionality, and dependence. While the PAQ contains some positive expressive traits such as "not at all kind" to "very kind", and "not at all aware of feelings" to "very aware of the feelings of others", it also includes items tapping emotionality, such as "not at all emotional" to "very emotional." Both the PAQ and BSRI Masculinity scales contain items that reflect autonomy rather than instrumentality (i.e., not at all independent to very independent; and self-reliant, self-sufficient, and independent).

In an attempt to provide empirical support for this theoretical formulation of expressiveness and instrumentality, Johnson, Stockard, Acker and Naffziger tested these hypotheses first in 1975, and Gill, Stockard, Johnson and Williams later provided replications in 1987. The first task was to separate the dimensions into six categories: (a) positive instrumental, (b) negative instrumental, (c) positive expressive, (d) negative expressive, (e) active/ independent, and (f) passive/dependent. Four authors and three male graduate students sorted adjectives on Gough's Adjective Check List into the six categories. If a word received the same placement by three of the four female judges and two of the three male judges it was placed in that category. Then the 46 adjectives selected by the judges were presented to a sample of undergraduate students (130 men and 135 women), who were asked to rate themselves on the adjectives. The responses

were then subjected to both factor and cluster analyses, and the placement of adjectives by the judges and the students were compared.

Words grouped by judges in one category tended to have the highest loading on the same factors, and to be in the same or closely related clusters, which supports the authors contention that personality traits may be grouped into the six identified categories. Nonetheless, no arrangement for either sex nor either method was exactly identical to the judges' groupings. Therefore, a grouping was made on the basis of maximum agreement between the sexes and the two methods of analysis.

The only significant sex differences that emerged were: (a) women's tendency to rate themselves as both more positive expressive and less negative expressive than men, and (b) men's tendency to rate themselves as more analytical, rational, and foresighted than women rate themselves. There were no sex differences on the other group of positive instrumental words: thorough, efficient, industrious and planful. Thus, in this sample, women saw themselves as more expressive than men, but no more dependent, nor possessing no more negative instrumental traits than men.

The pattern of intercorrelations demonstrated that for women, positive expressiveness was more highly correlated with active independence than it was for men. This suggests that this sample of college women saw themselves as aggressive, forceful, and stern as well as considerate, good-natured, and sympathetic. The men in this sample, however, did not combine these traits. Comparably, women saw themselves as both active and psychologically independent, and positively expressive, although men did not. Men associated activity and independence with negative expressive traits (quarrelsome, touchy, irritable). These results support the authors' hypotheses that: (a) women and

men differ more with respect to the positive expressive domain than with instrumental characteristics, and (b) that women's experience of independence is related to an expressive-instrumental orientation, while men's experience of independence is related to a rejection of expressiveness. The authors further hypothesized that for men, becoming independent from the primary mother attachment may involve some rejection of feminine or expressive traits in themselves. In other words, they become masculine by rejecting the feminine.

Johnson et al. (1975) concluded by stating that expressiveness was a common human orientation that can be fostered in both sexes, despite the tendency for men to reject it in order to prove their masculinity, and women's devaluation of it for fear it will be used to justify their assignment to lower level "helping jobs". They contended that women should not deny expressiveness, nor allow expressive activities to preclude participation in instrumental activities, which could be enriched by expressive skills.

Later, in 1982, 1983, and 1984, Gill et al. conducted four replications of the 1975 study with 340 students at the University of Oregon, 250 high school students in rural Oregon, 430 male and female nurses through a mailed survey, and another mailed survey of 460 University of Oregon undergraduates. Factor analyses of the data in all five samples (including the original study) resulted in a strong expressiveness factor in each of the groups. The positive instrumental traits clearly were not unidimensional, and consistently resulted in two distinct dimensions across samples: industrious and analytical. Autonomous traits resulted in factor structures that were less consistent from one sample to the next, but two separate dimensions appeared: forceful and adventurous. Intercorrelations among the scales were positive and moderate, supporting the contention

that the scales represent distinct dimensions, yet are not opposites, so that individuals may see themselves as expressive as well as instrumental.

The largest and only consistent measured gender difference observed was that women reported significantly higher levels of expressive personality traits than men. Women did not consistently rate themselves lower on the instrumentality and autonomy scales. In fact, on the industrious sub-dimension of the instrumental scale, females had higher scores than males in most of the samples. These findings are especially noteworthy due to the connection of instrumentality and autonomy with the male gender role at the expense of an expressive orientation. Gill et al. (1987) were also critical of previous measures of instrumentality and expressiveness because they were not unidimensional and were based on the very stereotypes that the women's movement has sought to overcome. These authors advocated measuring actual differences in the self-definitions of men and women, rather than measuring individuals' conformity to gender role stereotypes of masculinity and femininity. Furthermore, they criticized the heterogeneous nature of the BSRI and PAQ femininity scales, which intermixes negative instrumental, dependent, and expressive items. This heterogeneity of scale content may be important in explaining the failure of the femininity scales to correlate with mental health and happiness. These results, if not critically examined, may advance the view that women should abandon a relational orientation in order maximize their mental health and happiness.

Multidimensionality of Masculinity and Femininity

Gill et al. (1987) contended that the femininity scales on both the BSRI and PAQ confound expressiveness with emotionality and dependence. The authors argue that items

such as "soft-spoken", "gullible", "childlike", and "does not use harsh language"on the BSRI, and "emotional" on the PAQ, are not part of the expressiveness dimension. Therefore, these scales are not unidimensional. Similarly, Marsh and Myers (1986) observed that Bem's theoretical position was consistent with the multidimensionality of global masculinity and femininity, yet disagreed with her decision to use "a conglomerate of items to reflect this dimensionality, rather than to hypothesize and measure separate components of this global construct" (Marsh & Myers, 1986, p. 402).

A recent review of factor analytic studies conducted on the BSRI and the PAQ has provided strong evidence of the multidimensionality of the instruments, resulting in as many as nine factors (Adams & Sherer, 1985; Antill & Cunningham, 1982; Antill & Russell, 1982; Blanchard-Fields, Bledsoe, 1983; Brems & Johnson, 1990; Collins, Waters & Waters, 1979; Feldman, Biringen, and Nash, 1981; Gaa, Liberman & Edwards, 1979; Gaudrea, P. 1977; Gruber & Powers, 1982; Lubinski, Tellegen & Butcher, 1981; Martin & Ramanaiah, 1988; McCreary & Steinberg, 1992, Moreland, Gulanick, Montague & Harden; 1978; Popiel & de Lis, 1984; Person, 1980; Ramaniah & Martin, 1984; Ratliff & Conley, 1981; Ruch, 1984; Suhrer-Roussel & Hertzog, 1994; Waters & Popovich, 1986; Waters, Waters & Pincus, 1977; Whetton & Swindells, 1977). In all of the studies reviewed, an Expressiveness factor emerged which was labeled differently by the various authors (i.e. Concern for Others, Compassion, Interpersonal Sensitivity, Empathy, Feminine, Personal Warmth). The feminine items "flatterable', 'gullible", "childlike", and " yielding", did not load on the Expressiveness factor in 18 of the studies reviewed; "shy", "soft spoken", and "does not use harsh language" did not load on the Expressiveness factor in 17 studies. In some analyses, these items formed a separate

factor, and in others, loaded negatively on another factor, usually one of the dimensions comprising masculinity. Three additional factors consistently emerged in the factor solution in the majority of studies: (a) an Instrumental factor (i.e., dominance, masculinity, interpersonal potency, leadership), (b) an Autonomy factor (self sufficient, independent, self reliant) and (c) a factor denoting gender or sex. The items on the Masculinity scale typically formed the Instrumental factor and the Autonomy factor, with athletic and competitive forming yet another factor in many studies. These studies provide strong empirical support that both the Masculinity and Femininity scales are multidimensional. This body of literature also provides support for the contention that expressiveness has been confounded with dependency on the Femininity scale of the BSRI (Gil et al., 1987). This failure of the Femininity scale to provide a pure measure of expressiveness could also explain the lack of association between femininity and indices of psychological health and adjustment.

Relation of Gender Role Orientation to Personality and Behavior

Bem (1974) postulated that androgyny would result in greater adaptability and flexibility due to a broader behavioral repertoire, allowing the freedom to engage in both masculine and feminine behaviors as the situation demands, rather than suppressing behavior that is considered undesirable or inappropriate for one's sex. Spence et al. (1975), on the other hand, proposed that androgyny, or the possession of a high degree of both masculinity and femininity, would lead to the most socially desirable consequences, resulting in an additive effect of the individually strong positive relationships of masculinity and femininity to self esteem. However, empirical investigations of this relationship have provided mixed results (Jackson & Paunen, 1980; Kelly J.A. & Worell,

J., 1977; Worrell, J., 1978). These findings have undoubtedly been influenced by the criteria utilized in assessing psychological well-being, as well as by the particular situations or contexts in which assessment occurs.

In a meta-analysis of 26 studies utilizing several gender role measurement instruments and various indices of mental health (e.g., self esteem, psychological adjustment, neurosis, etc.) Bassoff and Glass (1982) concluded that subjects classified as masculine and androgynous demonstrated higher levels of mental health than their feminine counterparts. While androgyny was associated with higher levels of mental health than femininity, the masculine component of androgyny accounted for this relationship, rather than the integration of masculinity and femininity. The results of this study led the authors to conclude that femininity was a largely irrelevant component of androgyny on measures of mental health. One possible explanation for these results has been the preference in this society for masculine men and women, who are assertive, forceful, competent, and independent. Feminine individuals, or people demonstrating feminine attributes, may not be rewarded or recognized for possessing these characteristics. Thus, feminine characteristics are not only devalued by American society, but also become devalued by the individuals that possess them. Another explanation is the possible bias in measures of mental health which seem to emphasize affective, anxiety, and somatoform disorders, often associated with femininity, while disorders of impulse control are less prevalent and are more highly associated with masculinity.

Taylor and Hall (1982) launched a critique of previous methodologies utilized to discern the relationship between gender role orientation and mental health, declaring the dominant utilization of the one-way analysis of variance (ANOVA) inadequate to explore

these issues. They contended that Bem's definition of androgyny was both theoretically and statistically independent from Spence's definition of androgyny, and proposed the two-way ANOVA model as the method of choice in assessing these differences. Spence has defined androgyny as possessing high levels of both masculinity and femininity, while Bem has defined androgyny as possessing approximately equal levels of masculinity and femininity, or balanced individuals (as opposed to sex-typed). Using the two-way ANOVA model, Spence's definition of androgyny was framed as the main effect, and Bem's definition of androgyny the interaction effect.

Taylor and Hall (1982) utilized this research paradigm to re-examine published androgyny research and found main effects that provide evidence of construct validity for the masculinity and femininity scales. Masculinity related positively to male-typed dependent measures, and femininity related positively to feminine-typed dependent measures. A notable finding was that femininity tended to relate positively to achievement and achievement values, but negatively to dominance and aggression, suggesting weaker sex-typing of achievement-related variables. In testing the main effects androgyny hypothesis, masculinity related positively to healthy dependent measures in 91% of the associations, while femininity related positively somewhat less consistently at 79% of the time. The traditional model of psychological health which posits that high masculinity coupled with low femininity is healthy for men, and that high femininity accompanied by low masculinity is healthy for women, found no support in this meta-analysis. The relationships between masculinity and femininity and psychological health for women and men were quite similar in this study. As for the balance androgyny hypothesis, only 51% of the results favored balanced over sex-typed

individuals, which did not constitute a significant difference. In summary, masculinity was the one strong main effect evident in this study, which is consistent with the findings of Bassoff and Glass (1982). This led the authors to conclude that it is masculinity, not androgyny, that yields positive outcomes for individuals in American society.

Whitley (1984) observed similar results in his meta-analysis of 32 studies. He demonstrated that masculinity had a moderately strong relationship to both the absence of depression and high general adjustment; femininity had no relationship to depression, and only a small relationship to general adjustment. Whitley (1984) hypothesized that these relationships exist due to a high-masculine person's strong belief in self-efficacy (Bandura, 1977), or their ability to deal with and control the environment. This belief is explicitly measured by the instrumental/masculine scales of gender role inventories, and is thought to be inversely related to depression. The smaller relationship of adjustment to femininity may reflect the lower value placed on communal relationships in this society, which results in fewer rewards, and therefore a lessened sense of achievement. This lowered sense of self-efficacy may explain the small relationship to general adjustment. If this is the case, the relationship between gender role orientation, depression, adjustment, and self esteem might result from the instruments tapping an underlying personality construct, rather than the effect of ones' gender role orientation resulting in differing amounts of these variables. Controlling for self esteem has greatly diminished the relationship between sex-role orientation and depression in previous studies (Whitley & Golin, 1981).

Self-Esteem. In an attempt to sort out the degree of relationship between gender role orientation and self-esteem, as well as the relationship between trait and behavior

measures of gender role orientation, Whitley (1988) conducted a multitrait-multimethod analysis utilizing the Personal Attributes Questionnaire (PAQ;Spence & Helmreich, 1978), the Sex Role Behavior Scale-2 (SRBS; Orlofsky & O'Heron, 1987), the Self Concept Inventory (SCI;Sherwood, 1965), and the Self Description Inventory (SDI; Shrauger & Rosenberg, 1970). The results indicated that self-report trait and behavior measures of gender role orientation do not show adequate convergent validity. While most of the correlations were statistically significant, the correlations were smaller than those between trait and behavior measures of self-esteem. Discriminant validity was not demonstrated between measures of masculinity and self-esteem. There was a strong relationship between self-reported traits of self-esteem and trait masculinity, especially for women, with a correlation of .76. A correlation of .80 was demonstrated between trait masculinity and self-esteem behaviors. The correlations were lower for men, .43 for traits, and .48 for behavior, respectively. Finally, trait measures of masculinity were more strongly correlated with measures of self-esteem than with behavior measures of masculinity, while femininity can be adequately discriminated from self-esteem.

The failure of gender role measures to adequately converge, and the failure of trait measures of masculinity to discriminate from self-esteem, render the construct validity of gender role measures questionable. These findings also lessen the credibility of the higher correlations between masculinity and self esteem, which have been prevalent in the gender role literature. Consequently, the PAQ Masculinity scale, the SCI, and the SDI may be essentially measuring the same construct. Due to the high correlations between the PAQ and BSRI M and F scales, Whitley (1988) contended that these conclusions could be applied to the BSRI as well.

As to the failure of the gender role behavior and trait measures to converge, Whitley (1988) offered two alternative explanations. First, one or both measures may lack construct validity. The trait measures have previously established reasonable construct validity through results of experiments using these measures as operational definitions of gender role orientation (i.e., Taylor & Hall, 1982); however, it is possible that the validity coefficients could be accounted for by the scales measuring self-esteem in addition to gender role orientation. Less research has been conducted on the gender role behavior scales, but in this study, they overlapped much less with self esteem.

The other explanation is that both measures are valid, but represent different aspects of the gender role construct; consequently, there is no expectation that they should be highly correlated. For instance, a person with masculine personality traits might attain a high score on a self-esteem measure, but demonstrate behavior patterns that are by definition less relevant to self-esteem. Whatever the case, these results lead to reexamination of previous literature relating trait measures of masculinity to other constructs, and a need to be cognizant of the strong evidence that the gender role construct is multidimensional in nature.

In a 1993 study, Whitley and Gridley continued investigation of the relationship of self esteem to gender role measures utilizing a latent variables analysis. The first-order confirmatory factor analysis indicated that masculinity was a separate construct from self-esteem. However, the hierarchical analysis indicated that masculinity, self-esteem, and mild depression could constitute different aspects of a single underlying construct which has been hypothesized as being Factor IV of the "Big Five" personality taxonomy, called Negative Affectivity or Neuroticism. Whitley and Gridley (1993) cited evidence for this

hypothesis in the loading of the depression and self-esteem factors on a higher order factor. Individuals scoring high on Neuroticism were characterized by high scores on depression measures and low scores on self esteem measures (Watson & Clark, 1984). Additionally, Lippa (1991) found that the BSRI and PAQ Masculinity scales were negatively correlated with the Big Five neuroticism factor. Thus, Whitley and Gridley (1993) proposed that masculinity, self-esteem, and mild depression were associated by their common relationship to the overarching Neuroticism personality factor.

The Femininity factor was not related to the self esteem or depression factor, and did not load on the higher order factor. This finding is consistent with prior research suggesting that femininity measures are unrelated to global measures of well-being. However, Lippa (1991) demonstrated correlations between the BSRI and PAQ femininity scales and the Big Five Factors Agreeableness and Conscientiousness. This adds credence to the discriminant validity of the Masculinity and Femininity scales and provides evidence that, while femininity is not related to global measures of self esteem and adjustment, it is related to specific aspects of those constructs. Whitley and Gridley (1993) proposed the Big Five taxonomy as an organizing focus for the relationships between gender role orientation and other personality variables, as well as a theoretical framework which has been noted as lacking in most gender role research. (Marsh & Myers, 1986; Pedhazur & Tetenbaum, 1979).

The Method-Effect Hypothesis. Marsh and Myers (1986), noting the observations of previous researchers, proposed a method-effect hypothesis to explain the lack of association between measurements of mental health and feminine gender role orientation. A potential weakness in the construction of the PAQ and BSRI was the inclusion of

primarily socially desirable attributes. This feature may result in correlations between two sets of socially desirable items that are independent of the true relationship of masculinity and femininity. This may be especially important in correlations with self esteem, since self-esteem is typically measured by endorsement of positively-valued items, and nonendorsement of negatively valued items. The pattern of correlations demonstrated when positive and negative gender role attributes are placed on separate scales as in the EPAQ (Spence, 1979) and the Australian Sex Role Scale (ASRS;Antill, Cunningham, Russel and Thompson, 1981) supports this contention. The positive masculine scales were found to correlate highest with self esteem, the positive feminine scales demonstrated low positive correlations, and there was a near zero relationship between negative masculine scales and self esteem. The negative feminine scales exhibited a low negative correlation with self esteem.

The Five Factor Model of Personality

Many researchers and theorists have proposed alternative methods of measuring gender role orientation and the constructs masculinity and femininity. Anastasi (1988) asserted that it would be more productive to measure men and women on clearly defined and empirically established personality traits in lieu of adherence to narrowly defined cultural stereotypes as utilized in the current gender role instruments. The NEO Personality Inventory (NEO-PI-R; Costa & McCrae, 1992) is an example of an instrument that measures empirically established personality traits, and according to the Twelfth Mental Measurements Yearbook (Conoley, Impara & Murphy, 1995), is among the most researched personality instruments, with 50 cited references. Additionally, the Five Factor Model of Personality, upon which the NEO-PI was built, has also been well-

validated. As early as 1932, William McDougall postulated the existence of five basic factors comprising personality. Although his usage of the word factor more closely resembled the term topic than the contemporary meaning of the word, his foresight was uncanny when considering the subsequent fifty years of work dedicated to organizing the language of personality into a cogent five-factor structure. Shortly after McDougall's contribution, Klages (1926) and Baumgarten (1933), two German psychologists, proposed that a careful analysis of the language would facilitate the comprehension of personality, which inspired Baumgarten to study terms commonly found in the German language. Although, Baumgarten's efforts had little influence upon the course of German psychology, Allport and Odbert subsequently undertook their own examination of the English language, which in turn influenced the work of Cattell, whose system of personality measurement was based on factor-analytic studies of peer ratings of college students. Cattell's system drew criticism due to its complexity, utilizing a minimum of 16 primary factors and 8 second-order factors. Subsequently, five independent investigators, (Borgatta, 1964; Fiske, 1949; Norman, 1963; Smith, 1967; and Tupes & Christal, 1961) were unable to substantiate anything more complex than a five-factor solution with Cattell's scales. One might have expected, given the robustness of these investigations, that subsequent research would have concentrated on clarifying these dimensions. However, attacks upon the entire field of trait research launched by Mischel (1968), Peterson (1960), and others postponed such efforts. Additionally, the influence of radical behaviorism seemed to reify the monumental effects of situational variables on behavior with studies such as Milgram's (1963). In retrospect, it appears that these "situation enthusiasts" overlooked important work done by Funder and Ozer in 1983, which

demonstrated that situational variables usually account for no more than 15% of criterion variance.

In the past decade, however, interest in the five-factor model has increased rapidly. Goldberg (1981) argued that any model dealing with individual differences in personality will have to address some form of the Big Five Dimensions, which at a basic level could provide a framework for many theoretical systems of personality concepts, including the perspectives of Cattell, Norman, Eysenck and Guilford. (Goldberg ,1983, as cited in Digman, 1990) developed a set of 50 self-rating scales that he believed were standard markers of the Big Five. Building upon 40 ratings scales developed by Goldberg (1983), McCrae and Costa (1985) added 40 additional rating scales in the the development of the Neuroticism, Extraversion, Openness Personality Inventory (NEO-PI). The Baltimore Longitudinal Study on Aging was the source of subjects who were asked to identify four or five peers who knew them well, who then completed the scales. Peer responses to these 80 scales were then factor analyzed, producing the ubiquitous five-factor solution.

Although there is substantial agreement regarding the number of personality dimensions, there is less consensus with regard to the meaning and the designation of these dimensions. General agreement has been reached that Dimension I is Eysenck's (1947) Extraversion and Introversion, and Dimensions IV depicts the presence of negative affect, or Tellegen's (1985) Negative Emotionality, which Eysenck has referred to as Neuroticism vs Emotional Stability. Agreeableness, a somewhat lackluster term, has been designated as the label for Dimension II which includes the more humane aspects of personhood such as altruism, nurturance, caring, and emotional support at one end of the

continuum, and hostility, indifference, self centeredness, spitefulness, and jealousy at the other. Dimension III has been variously associated with educational achievement, volition, will to achieve, or more simply will, but has been most commonly interpreted as Conscientiousness. Intelligence, intellect, and openness have all been used to denote Dimension V. McCrae and Costa (1985), with their collection of scales tapping various aspects of openness (e.g. openness to feelings, new ideas, flexibility of thought, and readiness to engage in fantasy) seemed to have best captured the essence of this dimension's interpretation as Openness.

Using the NEO-PI as a marker for the Big Five, the presence of the five-factor model has been demonstrated in the following personality questionnaires: (a) Eysenck Personality Inventory (Eysenck & Eysenck, 1964; McCrae & Costa, 1985) , (b) the Jackson Personality Research Form, (Jackson, 1974; Costa & McCrae, 1988) (c) the Meyers Briggs Type Indicator (Myers and McCauley, 1984; McCrae & Costa, 1989),and (d) the California Q-Set (Block, 1961;McCrae et al., 1986). Only four of the five factors were found in the MMPI, with Conscientiousness noticeably missing. Additionally, John (1989) found the five-factor solution in 60 adjectives chosen from the Adjective Check List which were administered to college students. Four of the five factors also demonstrated considerable overlap with both the vector scales and the primary folk concept scales of California Psychological Inventory (CPI; Gough, 1987), one of the most frequently used personality questionnaires (John, 1990). Aspects of the Agreeableness factor (cooperation, selflessness, and altruism) do not appear to be well represented by any CPI scales (McCrae, Costa, & Piedmont, 1993).

Masculinity and Femininity and the Big Five

Some researchers believe that the Big Five personality domains can be availed to untangle the complex relationships among masculinity, femininity, and psychological adjustment. Lippa (1991;1995) has been at the forefront in this line of thought, and has developed a program of research to this end. Utilizing 30 traits chosen to tap the Big Five dimensions, Lippa (1991) demonstrated considerable overlap between masculinity and femininity as measured by the PAQ and BSRI and the Big Five. Factor analyses indicated that Neuroticism was negatively related to masculinity, while Extraversion, and Openness were positively related. Femininity was primarily related to both Agreeableness and Conscientiousness.

Lippa (1995) further proposed another framework which is closely related to the Big Five, and which is relevant to research on gender-related individual differences and psychological adjustment--the interpersonal circumplex model of personality (Wiggins, 1982; Wiggins & Pincus, 1994). According to the model, Extraversion and Agreeableness are especially pertinent to personality and maladjustment as manifested in the interpersonal domain, and they form the two-dimensional space occupied by the interpersonal circumplex (Trapnell & Wiggins, 1990: Wiggins & Pincus, 1994). The interpersonal circumplex forms a circle in two-dimensional factor space, and is typically assessed at eight points around the circle, ranging from Assured-Dominant at point one, to Gregarious-Extraverted at point eight. One of the instruments that has been developed to assess interpersonal maladjustment in terms of the circumplex model is the Inventory of Interpersonal Problems (IIP; Horowitz, Rosenberg, Bauer, Ureno, & Villa-senor, 1988).

According to Palhus (1987; cited in Lippa 1995), masculinity might be conceptualized as dominance, and femininity as nurturance, which are two defining axes of the circumplex. If this is the case, the interpersonal problems assessed by the Inventory of Interpersonal Problems (IIP) could be highly related to gender, at least in a stereotypical sense. Common stereotypes relegate men's shortcomings to excessive agency as manifested by being domineering, overbearing, and autocratic, while simultaneously exhibiting deficiency in areas of communality, e.g., being inexpressive, uncommitted, and distant. Women's shortcomings, on the other hand, typically lie with deficient agency, or being unassertive and dependent. Excessive communion is another problem area for women, which is expressed by being clingy, overly expressive, and too involved with significant others.

Furthermore, in the same way that the Big Five frames extreme variants of these normal personality dimensions as maladjustment, the circumplex conceptualization posits that each kind of interpersonal maladjustment is opposed by a "mirror-image form of (sic) adjustment" (Lippa, 1995, p. 1186). Both masculinity and femininity may have negative and positive adjustment consequences interpersonally, i.e., individuals scoring high on masculinity may be autocratic and intrusive in relationships on the negative side, but may be appropriately assertive and not subject to exploitation on the positive side.

Lippa (1995) utilized the PAQ, BSRI, Gender Diagnositicity (items requesting preferences for 131 occupations, 51 activities, and 39 hobbies), 45 traits chosen as markers of the Big Five Dimensions, the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock & Erbaugh, 1961), the Rosenberg Self Esteem Scale (Rosenberg, 1965), the Aggression Questionnaire (Buss & Perry, 1992) and the Inventory of

Interpersonal Problems (IIP; Horowitz, Rosenberg, Bauer, Ureno, & Villa-senor, 1988) to investigate gender-related differences in terms of the Big Five and circumplex models of personality, as well as the relation of these variables to psychological adjustment. In a second study, all of these instruments, as well as measures of authoritarianism and social dominance orientation, were utilized. College men and women were assessed in both studies.

In the first study, there were no sex differences in interpersonal problems or depression. Women scored significantly higher on Agreeableness and Conscientiousness than men, while men scored significantly higher on self esteem, although the differences were small. In the second study, women demonstrated higher Extraversion scores, and reported less severe interpersonal problems than men. No sex differences in self esteem were observed in Study 2.

Therefore, across both studies, sex differences in self esteem and interpersonal problems were inconsistent, while sex differences in depression were not demonstrated. These results are quite interesting given the attention Negative Affectivity has received in the gender related psychological adjustment literature, as the various measures of anxiety, depression, self esteem, and interpersonal problems scores showed little or no relation to participant sex.

Correlations between sex and ipsatized IIP scales revealed that being male was most highly correlated with being domineering, vindictive, and cold; being nonassertive and exploitable was correlated with being female. A gender axis of sex differences in circumplex space ran roughly from Vindictive to Exploitable which is approximately the axis of the Big Five factor of Agreeableness, along which sex differences are the

strongest. Among the Aggression Questionnaire Scales, sex correlated most strongly with physical aggression, and to a lesser but significant degree, verbal aggression, with men scoring higher on both measures.

Lippa (1995) also conducted factor analyses which indicated that the BSRI Masculinity scale was positively related to Extraversion, and Openness, and related negatively to Neuroticism. BSRI Femininity defined a factor on which Agreeableness loaded most highly, followed by Conscientiousness. These results strongly replicate those obtained by Lippa (1991).

In order to investigate the placement of masculinity and femininity in the circumplex of interpersonal problems, Lippa (1995) conducted a principal components analysis on the ipsatized IIP scales for all participants. Two factors were extracted that accounted for 69% of the total variance. To project the PAQ and BSRI scales into circumplex space, Lippa (1995) computed factor scores for each participant on the two rotated circumplex factors, and the correlations of masculinity, femininity with these two factor scores provided the x and y coordinates in circumplex space. The PAQ and BSRI masculinity scales correlated positively with being domineering, and vindictive, and correlated negatively with being socially avoidant, non-assertive, and exploitable. PAQ and BSRI femininity correlated positively with being exploitable and overly nurturant and correlated negatively with being domineering, vindictive and cold. Thus, Lippa (1995) linked both masculinity (socially desirable instrumental traits), and femininity (socially desirable expressive traits) with differing types of interpersonal problems.

As a means of further condensing the multiple measures of psychological adjustment, Lippa (1995) conducted a factor analysis of the following variables: Big Five

Neuroticism, depression, self-esteem, the mean of eight ipsatized IIP scales, Aggression Questionnaire scales, and the eight ipsatized IIP scales. This analysis yielded four factors. Neuroticism, depression, self esteem, the mean IIP scales, anger, and hostility all loaded highly on a Negative Affectivity factor. All of the Aggression Questionnaire scales loaded highly on a second factor labeled Aggressiveness. On the third factor, meanness, vindictive, and cold had strong positive loadings, while exploitable and overly nurturant had strong negative loadings. A factor labeled Overbearingness was defined by strong positive loadings on intrusive and domineering, and negative loadings on socially avoidant and nonassertive.

Not surprisingly, correlations between these four adjustment factors and the Big Five scales showed a strong relationship between Neuroticism and Negative Affectivity. The dominant Big Five component in the Overbearingness factor was Extraversion, and negative correlations with Agreeableness dominated in the Aggressive and Meanness factors. Conscientiousness showed the weakest correlation with the four adjustment factors.

Lippa (1995) discovered few significant sex differences on the four adjustment factors across both studies. Men scored higher on Aggressiveness and Meanness than women, and in Study 2, men scored higher than women on Authoritarianism. In Study 2 only, women scored higher on Overbearingness; however, Lippa (1995) suggested that this difference occurred because women were more intrusive and less socially avoidant rather than domineering. The most important finding was that of no sex differences on the Negative Affectivity factor. Again this finding is meaningful in light of previous

research in which Negative Affectivity has been the central focus of gender-related individual differences and adjustment.

As for the relationships of gender role to the adjustment factors, masculinity tended to correlate negatively with Negative Affectivity for men and women in both studies. In Study 2, masculinity correlated positively with Overbearingness and Aggressiveness for both men and women, and with Meanness for women only. Masculinity correlated positively with Aggressiveness for men only in Study 1. Consequently, masculinity was linked to positive adjustment (Negative Affectivity) in one instance and to maladjustment in three other cases (Overbearingness, Aggressiveness in men, and Meanness in women). For both men and women femininity correlated most strongly and negatively with Meanness, and to a lesser but significant degree negatively with Negative Affectivity. For men, femininity also demonstrated a significant positive correlation with Overbearingness. This is a surprising finding which Lippa (1995) hypothesized as possibly stemming from the tendency of male interpersonal warmth taking an overly intrusive form.

In examining the differing relationships between gender role measures and the adjustment factors, masculinity as measured by the PAQ loaded relatively higher on Negative Affectivity than masculinity as measured by BSRI. The BSRI Masculinity scale loaded higher on the Overbearingness and Aggressiveness factors. Conversely, the femininity scales on both the PAQ and BSRI correlated strongly and negatively with the Meanness factor.

Lippa (1995) drew the overall conclusion that previous studies on gender-related individual differences and psychological adjustment may have placed undue emphasis on

Negative Affectivity, at the expense of other components of adjustment such as Authoritarianism, Aggressiveness, Meanness, and Overbearingness. In both studies conducted, Negative Affectivity showed little or no difference between the sexes. Furthermore, both masculinity and femininity were associated with specific kinds of interpersonal problems. Therefore, masculinity should not be held as the ideal and significant contributor to the adjustment factors observed in androgyny.

Gender Role and Personality

A recent review of existing literature revealed a dearth of studies focused on gender role orientation and personality. Broadening the search to gender differences in personality uncovered additional studies, however, the result was still scant. Perhaps the most comprehensive treatment of gender differences in personality was a series of meta-analyses conducted by Feingold (1994) on three different bodies of literature.

The first meta-analysis was a reanalysis of a study conducted by Maccoby and Jacklin (1974) which utilized a narrative method of review. This consisted of grouping studies by area, noting the significance or nonsignificance of each sex difference and drawing conclusions subjectively from both the number and consistency of significant gender differences. In the original study, which consisted of 68 studies with findings from 105 independent samples, Maccoby and Jacklin (1974) mixed studies that used personality inventories with those that measured behaviors, and concluded that males were more assertive, more aggressive, and less anxious than females. No sex differences were found in self esteem, and locus of control was deemed to vary by age, with greater male internality emerging only in college years.

Similarly, Feingold (1994) found no essentially no overall sex difference in self-esteem, although female children had higher self esteem than male children, and male adolescents and adults had higher self-esteem than female adults and adolescents. Likewise, there was no overall gender difference in locus of control, however, males were found to be more internally controlled when behavioral measures were used, whereas there was no significant difference when internal control was measured by personality scales. Females scored slightly higher than males on measures of anxiety, and there was no gender difference on behavioral measures of assertiveness, although male adolescents and adults scored higher than female adolescents and adults on personality scales of assertiveness.

The second set of data was a replication of a study conducted by Hall (1984). Hall's (1984) original study was a meta-analysis of studies published from 1975 through 1983 in four journals: Journal of Personality, Journal of Personality and Social Psychology, Journal of Personality Assessment, and Sex Roles. Hall's (1984) original findings revealed no sex differences in self-esteem or assertiveness; however, females were found to be more anxious and less internally controlled than males, although the effect sizes were small. The replication included 42 studies yielding 69 effect sizes from 54 independent samples, published from 1984 through 1992 from the same four journals, dealing only with clinically normal adolescents or adults. The anxiety category subsumed sex differences in both general anxiety and social anxiety, but excluded measures labeled neuroticism and depression. The assertiveness category subsumed differences in assertiveness, dominance, and social poise, while the self-esteem category included

measures of both self-esteem and self-concept. The locus of control category included only measures specifically identified as such.

Feingold's (1994) replication of Hall's (1984) meta-analysis indicated that males scored slightly higher on measures of self-esteem, and there was no notable difference in locus of control. Females scored slightly higher on measures of general anxiety than males, but there was no sex difference on measures of social anxiety. In the United States, males were slightly higher than females in social anxiety. Furthermore, there was a small male advantage on measures of assertiveness.

Finally, Feingold (1994) compared gender differences across meta-analyses: (a) meta-analysis of the Maccoby-Jacklin (1974) studies spanning 1958-1974, (b) Hall's original meta-analysis (1984) with studies from 1975-1983, and (c) replication of Hall's (1984) meta-analysis of studies from 1984-1992. Feingold (1994) utilized Cohen's (1977) classification of effect sizes with an effect of .20 classified as a small effect, .50 as a medium effect, and .80 as a large effect. Although the effect sizes were small, (.10 in the Maccoby and Jacklin re-analysis; .12 in the Hall re-analysis; .16 in the Hall replication), all three meta-analyses found that males had higher self-esteem than females. There was no consistent sex difference in locus of control (effect sizes .07, .24, and .08 respectively), which varied with the operationalization-- males were higher on behavioral measures, while no significant gender differences occurred on personality based scales. Males were also more assertive (effect sizes .20, .12, and .17). Females demonstrated higher anxiety with effect sizes ranging from .31, .32 and .15 on measures of general, but not social anxiety.

Feingold (1994) also compared norms on personality inventories analyzing gender differences. He utilized scales developed from each of the three major approaches to personality inventories: (a) empirical criterion keying, (b) factor-analytic, and (c) the theory-guided rational method. From the empirically-keyed inventories, he included the Minnesota Multiphasic Personality Inventory (MMPI/MMPI-2), the California Psychological Inventory (CPI/CPI-R), and the MMPI Adolescent (MMPI-A). The Guilford-Zimmerman Temperament Survey (GZTS), two editions of the High School Personality Questionnaire (HSPQ), three of the four editions of the Sixteen Personality Factor Questionnaire (16PF), the Institute for Personality and Ability Testing (IPAT) Anxiety Scale Questionnaire (IASQ) all developed by Cattell, the NEO Personality Inventory (NEO-PI/NEO-PI-R), the Gordon Personal Profile (GPP), the Gordon Personal Inventory (GPI), the Comrey Personality Scales (CPS), and two editions of the Eysenck personality inventories, the Maudsley Personality Inventory (MPI) and the Revised Eysenck Personality Questionnaire (EPQ-R) were all included from the factor-based inventories. Only two inventories were based on the rational method, both utilizing personality constructs posited by Murray: the Edwards Personal Preference Schedule (EPPS), and the Personality Research Form (PRF).

The scales from the inventories were organized by the 30 facets or traits represented in Costa and McCrae's (1992) five-factor model of personality as measured by the NEO-PI-R, which yield five higher-order factors: Neuroticism, Extroversion, Openness, Agreeableness, and Conscientiousness. Feingold (1994) determined that nine facets were prevalent in the selected personality inventories: anxiety, impulsiveness, gregariousness, assertiveness, activity, ideas, trust, tender-mindedness, and order. Scales

measuring anxiety and impulsiveness constituted the neuroticism category, gregariousness, assertiveness and activity scales comprised the extroversion category. Scales measuring ideas made up the openness category, trust and tender-mindedness combined to form the agreeableness category, and scales measuring order were the sole contributor to the conscientiousness category.

The results of this comparison revealed that males generally scored higher than females on scales of assertiveness, while females scored higher than males on scales of anxiety, gregariousness, trust, and especially tendermindedness. Females were slightly higher than males on extraversion, and there were essentially no overall gender differences on scales of impulsiveness, activity, ideas, and order, although gender differences were sometimes found on specific operationalizations of these traits. Moreover, the effect sizes generally did not vary appreciably across years of norms, ages of examinees, educational levels of examinees, or nations. Therefore, for the meta-analyses of both studies and test norms, males were found to be more assertive and females higher in trait anxiety. Furthermore, the personality dimensions that most strongly differentiated between the sexes were assertiveness and tendermindedness which, according to Feingold (1994), are nearly pure measures of agency, or instrumental traits, and communality, or expressive traits.

Agency and Communality. The extent to which agentic and communal behaviors are influenced by gender roles and situational variables was the focus of another investigation conducted by Moskowitz, Suh, and Desaulniers (1994). The authors hypothesized that the prescriptions of social roles would over- ride the expectations of gender roles. This hypothesis was supported for agentic behavior at work. More

specifically, regardless of gender, individuals were more dominant when they were in a supervisory role than when they were interacting with co-workers, or in the role of a supervisee. And as expected, individuals were more submissive when they were being supervised than when they were with a coworker or in a supervisory role. However, communal behaviors were influenced by gender role and not social role. Men were more quarrelsome than women, independent of social role, and women had higher communion scores than men.

Morality of Care. Similarly, women were found to endorse a "caring perspective" or a "morality of care" as set forth by Gilligan (1982) at a higher rate than men (Stimpson, Neff, & Jensen,1991). Utilizing the Interpersonal Sensitivity Factor of the Bem Sex Role Inventory (BSRI) as established by Pedhazur and Tetenbaum (1979) as a dimension of goodness, interspersed with the other items on the BSRI, women rated the 16 adjectives included on this factor higher than men. These findings support the contention that women rate the feminine nurturing items higher on the goodness dimension because they fit within a culture of caring, whereas men do not rate these adjectives as highly because they are less familiar and involved in this culture of caring. In this sample of university students, women also rated the masculine adjectives "independent" and "individualistic" higher than men, which appears to be antithetic to the theory. The authors suggest that these subjects have embraced these traits as supportive of their quest for achievement and pursuit of higher education, and are also supportive of and familiar with the values of the male culture (Stimpson et al., 1991).

Kohut's Psychology of the Self. Gender role constructs have also been hypothesized to parallel Kohut's (1984, 1987) theory of the self. In Kohut's framework,

the self emerges as a bipolar structure with grandiosity at one end of the continuum, and dependency at the other. Through normal developmental processes, immature grandiosity grows through assertiveness into healthy ambitiousness, which parallels instrumentality, while early dependencies and an idealized internal image of admired parents are transformed into a stable system of values, which resemble expressiveness. External, internal, synthetic, and archaic narcissistic self-styles were hypothesized to parallel masculine, feminine, androgynous, and undifferentiated gender roles respectively (Watson, Biderman, & Boyd, 1989).

Westin (1985 as cited in Watson et al. 1989) argues for two basic forms of pathological narcissism: internal and external.

> "Internal narcissism" results when adequate structure building has failed to occur along the growth trajectory associated with nuclear grandiosity. The arrogant and boastful internal narcissist "looks down on" others for the external source of loving approval needed to maintain a cohesive self. "External narcissism", on the other hand, results from inadequate structure building along the dimension of the idealized image. Selfless and servile external narcissists "look up to" powerful others, trying to merge with them psychologically in order to keep their self together. "The internally narcissistic person tries to incorporate others into his orbit; the externally narcissistic person has become a satellite in the orbit of significant others". "Synthetic narcisissim" avoids the deficiencies of both pathologies, and essentially represents a building of structures along both dimensions.

Watson et al. (1989) hypothesized that the socially desirable aspects of masculinity would be related to adaptive forms of grandiosity, and that being male and an undesirable masculinity would be associated with immature grandiosity. Being female and undesirable aspects of femininity might predict inadequate idealization, and greater goal instability and peer group dependence. Socially desirable feminine traits should be inversely related to immature grandiosity, just as they predict lower levels of undesirable masculinity, and conversely, desirable masculinity should interfere with undesirable femininity.

In order to test their hypotheses, Watson et al. (1989) utilized the Goal Instability and Superiority Scales (Robbins & Patton, 1985), the Peer-Group Dependence Scale, a modified version of the Pseudoautonomy Scale (Lapan & Patton, 1986), the Narcisstic Personality Inventory (NPI;Raskin & Hall, 1981), the BSRI, the extended PAQ, and the Costello and Comrey (1967) Depression and Anxiety Scales. The NPI has four separate factors: (1) Exploitativeness/Entitlement (E/E), (2) Leadership/Authority (L/A), (3) Superiority/Arrogance (S/A), and (4) Self-Absorption/Self Admiration (SA/S). More mature forms of grandiosity were operationalized in measures such as the NPI Leadership, Superiority, and Self Absorption factors. Explicit measures of more mature forms of idealization are not currently available, precluding exploration of a positive relationship with desirable femininity, and a negative relationship with undesirable masculinity.

Intercorrelations among the gender role scales, depression and anxiety scales, and gender of subject resulted in significant correlations between being male, the BSRI and PAQ masculinity measures, the M-F scale (socially acceptable functioning for males and

unacceptable functioning for females), and undesirable masculinity (arrogant, boastful, egotistical, greedy, dictatorial, cynical, looks out only for self, and hostile). Males also displayed a tendency to be more anxious. Females displayed higher levels of expressiveness, a tendency to be verbally passive aggressive (whiny, complaining, fussy, and nagging) , and undesirable communality (spineless, servile, gullible, subordinates self to others) but failed to score higher on the BSRI Femininity Scale. Additionally, the PAQ Instrumental Scale and the BSRI Masculinity Scale were strongly interrelated, and seemed largely indicative of healthy self-functioning, as evidenced by negative correlations with anxiety, depression, and undesirable dimensions of femininity. The BSRI Femininity and PAQ Expressiveness scales were also highly correlated, and were negatively correlated with depression and the undesirable aspects of masculinity.

Hypothesized relationships along the grandiosity/dependency continuum were also realized. Exploitativeness/Entitlement and Pseudoautonomy were correlated positively with depression, while Leadership/Authority, Self Absorption/ Self Admiration, Superiority/Arrogance, and Superiority demonstrated a negative relationship with both anxiety and depression. Goal Instability and Dependence were strongly interrelated and also associated with greater depression and anxiety, as well as negatively linked to healthy forms of grandiosity (L/A, S/A, and SA/S) and positively linked to unhealthy forms of grandiosity (E/E).

Factor analysis of the narcissism measures resulted in two factors, the first with loadings on E/E, L/A, S/A, S/S, Superiority, and Pseudoautonomy which represents grandiosity. The second factor was defined by Goal Instability, Dependence, and weaker loadings by E/E and Pseudo autonomy which is representative of idealization or

dependency. However, the loadings of E/E and Pseudo autonomy on the second factor may imply that inadequate structure building may result in a convergence of the two poles in a more archaic form of self functioning.

Additionally, zero-order and partial correlations indicated that being male was related to maladaptive grandiosity, but expected relationships between being male and healthy self love were not demonstrated, nor were connections between being female and idealization. However, desirable masculinity as measured by the BSRI and PAQ Masculinity scales and M-F scale was associated with healthy grandiosity. Evidence that femininity may inhibit immature grandiosity was observed in the negative relationships with E/E and Pseudoautonomy, while undesirable masculinity showed significant relationships with such functioning. Undesirable femininity was associated with dependency and an inverse relationship to the development of mature grandiosity.

Factor analysis of all the narcissism and gender role measurements resulted in four factors. The fact that none of the gender role or narcissism measures formed an exclusive factor provides evidence of overlap in the constructs. The first factor was representative of a grandiosity/masculinity factor that was primarily adaptive, but included a degree of narcissistic exploitativeness and entitlement. The second factor could be formulated as an external narcissistic /masculine insufficiency factor, with positive loadings on Goal Instability and Dependency, accompanied by undesirable communality, verbal passive aggressiveness, and undesirable masculinity. This factor resulted in negative loadings on Masculinity, Instrumentality, and M-F. The third factor appeared to be an internal narcissistic/feminine insufficiency factor with unhealthy grandiosity as evidenced by positive loadings on Pseudoautonomy, E/E, undesirable masculinity, and the M-F scale.

Negative loadings were observed on femininity, and expressiveness. The fourth factor reflected a Masculinity/Leadership factor that seemed to also encompass undesirable masculinity.

In examining the effects of gender role orientation on the narcissism and adjustment measures, the androgynous classification emerged as clearly the most well-adjusted. Androgynous subjects were lowest in depression, immature grandiosity, displayed low levels of undesirable femininity, lower levels of Goal Instability and Dependence, and higher levels of healthy grandiosity. Androgynous subjects also were similar to feminine subjects in their low levels of maladjusted masculinity. All in all, androgyny seemed to demonstrate the advantages of a synthetic narcissism. On the other hand, undifferentiated subjects exhibited depression, anxiety, higher levels of undesirable gender role characteristics, and immaturity in the internalization of both ambitions and ideals, which the authors associate with an archaic style of self functioning.

While the correspondence of gender role measures with measures of narcissism is not perfect, there are rough similarities. Perhaps one of the most useful aspects of this comparison was the manner in which desirable and undesirable masculine and feminine characteristics were explored. While traditional gender roles have their strengths, they also demonstrate liabilities which seem to have been overcome to an impressive degree in this study, with the combination of both gender roles in the androgyny classification.

Anger. The experience and expression of anger is another personality characteristic which has been explored in relation to gender and gender role. In order to provide a clearer conceptual understanding of the experience of anger, Kopper and Epperson (1996) factor analyzed 17 measures of anger, aggressiveness, and hostility,

resulting in a three-factor model of anger which included: (a) aggressive acting out including physical aggressiveness, (b) high anger proneness and poorly controlled verbally expressed anger, and (c) anger suppression with accompanying resentment, suspiciousness, irritability, and passive aggressiveness. Using composite scores on these three measures of anger expression, gender was strongly related only to aggressive acting out, with males scoring higher on this composite. Femininity was negatively correlated with aggressive acting out, acknowledged, uncontrolled anger expressed more verbally and indirectly, and anger suppression. Masculinity was positively correlated with aggressive acting out, and acknowledged, uncontrolled anger expressed more verbally and directly. Androgyny was completely unrelated to all three anger composites. Based on the results of this study, it might be suggested that feminine gender role characteristics are more adaptive than masculine gender role characteristics when considering negative forms of anger expression.

Furthermore, Kopper and Epperson (1996) explored the relationship of gender and gender role with mental health functioning as operationalized by measures of depression, assertiveness, self-confidence, dependency, guilt, and conflict avoidance. The results obtained demonstrated no unique relationship between gender and mental health, nor androgyny and mental health. The anger composites, however, were the best predictors of mental health variables for both men and women, with anger suppression positively correlated with depression, dependency, guilt, and conflict avoidance, and negatively correlated with assertiveness and self confidence. Masculinity, as measured by the short form of the BSRI, was positively correlated with assertiveness and self confidence, and negatively correlated with depression, dependency, and conflict

avoidance. Femininity was positively correlated with self confidence, dependency, and conflict avoidance, and negatively correlated with depression.

Other Aspects of Femininity

In examining the gender role literature, it has become painfully clear that the established methods of measuring gender role are flawed and incomplete. It appears that the BSRI and the PAQ have failed to include some of the more adaptive dimensions of femininity in their item construction. Based on the evidence presented by Gil et al. (1987) and Goleman (1995), it appears that the most glaring omission from these gender role instruments is encompassed by the notion of emotional intelligence. Goleman (1995) in his book entitled Emotional Intelligence, cited evidence collected from over seven thousand people in the United States and eighteen other countries, declaring the benefits of being able to read feelings from nonverbal cues. These benefits include being better adjusted emotionally, more popular, more outgoing, and not surprisingly, more sensitive. He also stated that, in general, women are better at this kind of empathy than men. For this reason, attributes defined by Goleman as elements of emotional intelligence have been added to the items comprising the BSRI. Another dimension believed to be lacking in the BSRI is a dimension representing the capacity of women to be interdependent, or cooperative and collaborative. We have observed that masculine males identify with the value of being autonomous and independent. However, the ability to work productively and effectively with other people is a skill that is currently in high demand, whether it be within the family unit, at school, or in the work place. These skills will increase in importance as we become increasingly interconnected globally, and as we forge ahead in the information age.

CHAPTER THREE

Method

Participants

The research participants will consist of 400 male and female undergraduate students from a large southwestern university. The students will range in from 18 to 30, an will be enrolled in introductory psychology classes. Participation in the study will be strictly voluntary, resulting in additional course credit.

Data Analysis

An exploratory factor analysis will be conducted on the BSRI and the additional items constructed for the purposes of this study. An all-possible-subsets regression analysis will then be conducted to explore the interrelationships between the factors of the BSRI and the NEO-PI-R. Specifically, the Big Five personality domains will be used to predict the gender role factors.

Instruments

Demographic Data. A personal data sheet will be utilized to collect demographic information including age, sex, race, classification in college, marital status, and current relationship satisfaction.

Personality. The NEO Personality Inventory- Revised (NEO-PI-R) (Costa & McRae, 1992) will be used to assess personality dimensions. The (NEO-PI-R) (Costa & McRae, 1992) is a 240 item instrument that assesses five major domains of personality: Neuroticism (N), Extraversion (E), Openness to Experience (O), Agreeableness (A), and Conscientiousness (C). Each of the domains are represented by six lower level facet scale scores, resulting in a total of 30 facets, or more important traits, that define each domain.

This instrument utilizes a continuous 5-point scale. Retest reliability estimates range from .86 to .95 on the domain level, and .56 to .90 at the facet level (Botwin, 1995). Internal consistencies on individual facet scales ranged from .56 to .81 for self reports, and from .86 to .95 on the 48 item domain scales. The NEO-PI-R contains a simple validity check consisting of three items at the bottom of the answer sheets which ask the respondents to indicate if they have answered honestly and accurately, responded to all the items, and marked their responses in the correct spaces on the answer sheet. Additionally, the scales are roughly balanced in keying to counteract potential acquiescence or nay-saying biases. Guidelines have also been outlined in the administration manual to detect random responding.

The norms were based on a sample of 1,000 subjects, (500 males and 500 females) selected from three large scale studies of the NEO-PI-R. The normative sample was stratified to match 1995 U.S. Census projections for age, gender and race. This careful selection of the normative sample is an improvement over the NEO-PI as previous norms were not as representative of the general population. Separate norms are also provided for college-aged samples based on findings that adolescent and early adult samples systematically score higher on the dimensions of N, E, and O, and lower on the dimensions of A and C.

The validity of the NEO-PI-R scales has been demonstrated in a variety of ways including consensual validity between self, peer, and spouse reports of the test (McCrae, 1991). Construct, convergent, and divergent validity evidence of the scales has been collected through a series of studies conducted by Costa, McCrae, and their colleagues (Costa & McCrae, 1989; Costa & McCrae, in press). The NEO-PI-R scales correlated

with analogous scales from other instruments. These instruments represent various theoretical perspectives including career interests (Self Directed Search; SDS; Holland, 1985), Jungian Types (Myers-Briggs Type Indicator; MBTI; Myers & McCaulley, 1985), needs and motives (Personality Research Form; PRF; Jackson, 1984), psychopathology (Minnesota Multiphasic Personality Inventory; MMPI; Hathaway & McKinley, 1951), and multidimensional personality instruments (revised California Psychological Inventory; CPI-R; Gough, 1987; Guilford-Zimmerman Temperament Survey; GZTS; Guilford, Zimmerman & Guilford, 1976; Adjective Check List;ACL; Gough & Heilbrun, 1983 , and the Interpersonal Adjective Scale Revised; IAS-R; Wiggins, Trapnell, & Phillips, 1988). McCrae and Costa (1991) demonstrated links between the five factors and psychological well-being. High scores on Extraversion, Agreeableness, and Conscientiousness were associated with the greatest level of happiness and life satisfaction.

Gender Role Orientation

The Bem Sex Role Inventory (BSRI; Bem, 1974) will be used to assess dimensions of gender role orientation. The BSRI is a self-administered 60-item questionnaire containing a Masculinity scale, and a Femininity Scale. The remaining 20 items are treated as neutral fillers. The adjectives contained in the BSRI are scored on a 7-point scale ranging from "never or almost never true" to "always or almost always true." The BSRI was designed to test the hypothesis that masculinity and femininity are orthogonal constructs. Orthogonality would allow for individuals to exhibit both masculine and feminine traits, or androgyny (Bem, 1974) Initial analyses of the scales yielded internal consistency reliabilities of .86 and .82 for masculinity and femininity,

respectively (Bem, 1974). In their 1992 study, Ballard-Reish and Elton reported alpha coefficients of .78 for masculinity and .86 for femininity. Test-retest reliability of .90 has been reported for both scales. Statistical independence of the constructs was demonstrated in two separate samples (Stanford University: r =.11 for males, and r = -.14 for females; Foothill Junior College: r = -.02 for males, and r = -.14 for females). Concurrent validity has been established with moderate correlations with other gender role instruments such as the Personal Attributes Questionnaire (Spence, 1975).

Experimental Scale

In an effort to expand current definitions of femininity, eighteen items comprising two additional scales were constructed. Three judges familiar with the gender role measurement literature constructed the items which formed the Emotional Intelligence and Interpersonal Effectiveness Scales. The items were interspersed with the items on the BSRI with the author's permission. Consequently, every fourth item presented on the BSRI was an experimental item, and will be used to assess the appropriateness of including these items to assess feminine gender role orientation.

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APPENDIX B

Consent Form

CONSENT FORM
FOR PARTICIPATION IN EXPERIMENTAL RESEARCH
UNIVERSITY OF OKLAHOMA
NORMAN CAMPUS

The Relationship of the Big Five Personality Domains
to Gender Role Orientation

Celia Burke, M.A.
Jody L. Newman, Ph.D.

Description of Study: Written instruments will be used to determine your opinion on a number of issues. There are no right or wrong answers, it is your opinion that matters. An administrator will be available to answer any questions you might have regarding the instruments. Subjects are expected to read instructions carefully and answer all items before departure.

There are no substantial risks to subjects participating in this research. Individual subjects will not be identified. All instruments will be used in conjunction with those of your peers, and will not be of individual interest. Strict confidentiality will be maintained.

Participation in this study will fulfill one departmental research credit. It is the hope of the researchers that results of this study will contribute to a better understanding of the unique characteristics of the sexes within a model of psychological health.

If you have questions either about this research or about your rights as a research subject please contact one of the above individuals by writing to: Jody L. Newman, Ph.D., University of Oklahoma, Department of Educational Psychology, 820 Van Vleet Oval, Norman, OK 73069, or by calling: 325-5974.

Participant Consent: I understand that participation in this research is strictly voluntary. I also understand that I am free to refuse to participate and to withdraw from the experiment at any time without prejudice to me. I also understand that if I am participating in this experiment to obtain course credit and I decide to withdraw from participating, I might not get the course credit associated with the experiment.

Signature: _____

APPENDIX C

Demographic Questionnaire

Read and follow directions for each section carefully.

Please give the following information:

Age_____

Sex: M F

Marital Status: Never married _____ Married _____ Divorced or separated _____

Widowed _____

Number of children: _____

Ethnicity: White _____ African American _____ Hispanic _____ Asian _____

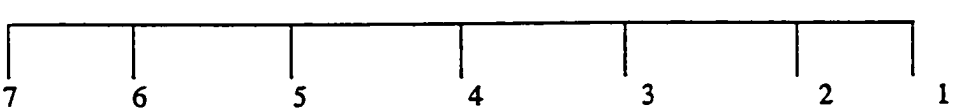
Native American _____ Bi-racial _____ Other _____

Education Level: Freshman _____ Sophomore _____ Junior _____ Senior _____

Graduate Student, Masters _____ Graduate Student, Ph.D. _____

Are you currently in a serious relationship? _____Yes _____No

Satisfaction with current relationship:



Completely Satisfied

Not at all Satisfied

APPENDIX D

Bem Sex Role Inventory (BSRI)

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UMI

APPENDIX E

Revised NEO Personality Inventory (NEO PI-R)

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Pages 139-146

UMI

APPENDIX F

Permission to use BSRI

Bem Sex-Role Inventory

Test Booklet (Short and Original)

Permission for:
Celia Burke to reproduce 525 copies in one year from date of purchase:
October 22, 1996

by Sandra Lipsitz Bem

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APPENDIX G

Permission to use NEO PI-R

PAR Psychological Assessment Resources, Inc.
Mailing Address: P.O. Box 998/Odessa, Florida 33556
Street Address: 16204 N. Florida Ave./Lutz, Florida 33549
Telephone (813) 968-3003
Telefax (813) 968-2598

October 24, 1997

Celia Burke, M.A.
Department of Educational Psychology
The University of Oklahoma
820 Van Vlett Oval, Room 321
Norman, OK 73019-2041

Dear Ms. Burke:

I am responding to your recent letter requesting permission to use the NEO Personality Inventory - Revised in your research project.

I have no objections to your using the published form of the NEO PI-R for this project. Photocopies are not allowed since it appears that there is no specific reason that you cannot use the published form.

Thank you for your interest in the NEO PI-R. If I can be of further help, please do not hesitate contacting me.

Sincerely,

Brenda D. VanAntwerp
Administrative Assistant
to the President

APPENDIX H

Institutional Review Board Approval

The University of Oklahoma

OFFICE OF RESEARCH ADMINISTRATION

September 19, 1996

Ms. Celia Burke
2149 Fremont Drive
Oklahoma City, Oklahoma 73120

Dear Ms. Burke:

Your research proposal, "The Relationship of the Big Five Personality Domains to Gender Role Orientation," has been reviewed by Dr. E. Laurette Taylor, Chair of the Institutional Review Board, and found to be exempt from the requirements for full board review and approval under the regulations of the University of Oklahoma-Norman Campus Policies and Procedures for the Protection of Human Subjects in Research Activities.

Should you wish to deviate from the described protocol, you must notify me and obtain prior approval from the Board for the changes. If the research is to extend beyond twelve months, you must contact this office, in writing, noting any changes or revisions in the protocol and/or informed consent form, and request an extension of this ruling.

If you have any questions, please contact me.

Sincerely yours,

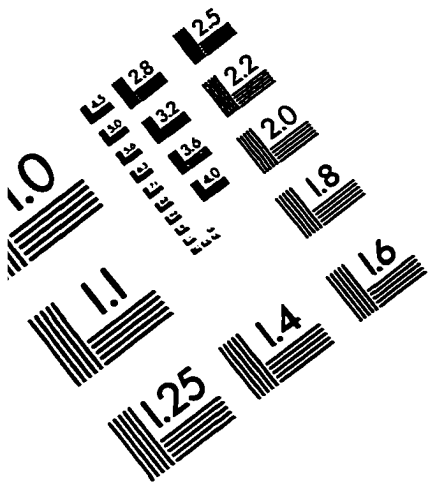
Karen M. Petry
Administrative Officer
Institutional Review Board

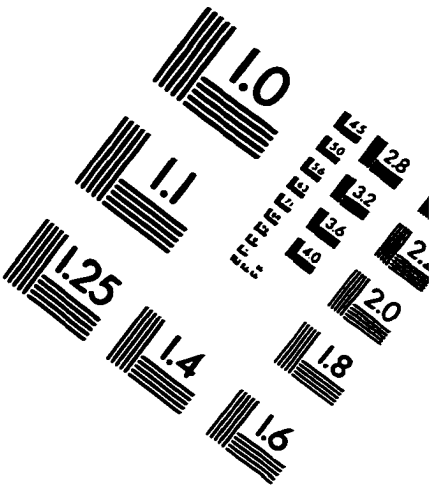
KMP:sg
97-031

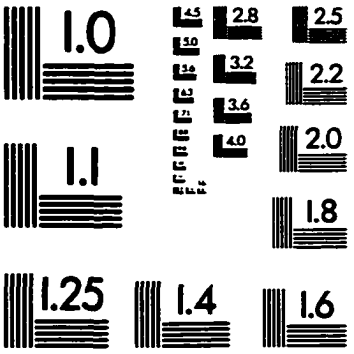
cc: Dr. E. Laurette Taylor, Chair, IRB
Dr. Jody Newman, Educational Psychology

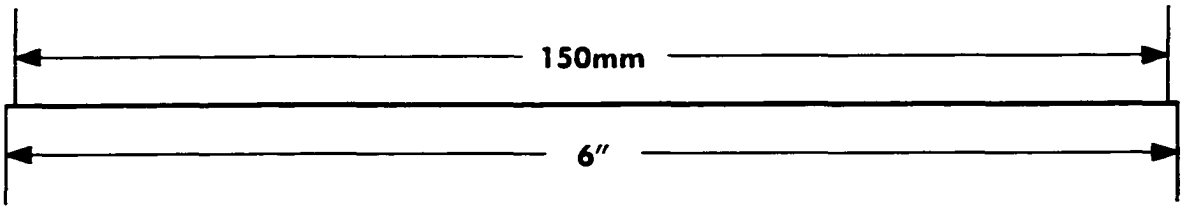
1000 Asp Avenue Suite 314 Norman Oklahoma 73019-0433 PHONE (405) 325-4757 FAX (405) 325-6029

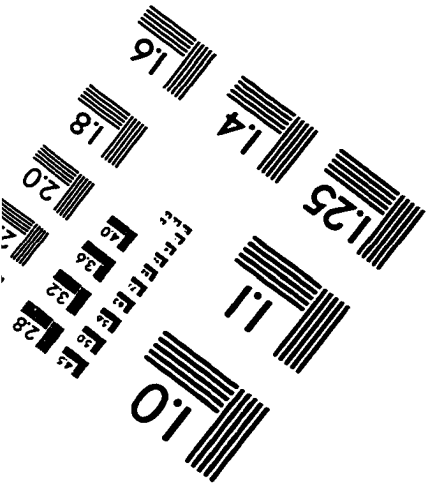
IMAGE EVALUATION
TEST TARGET (QA-3)

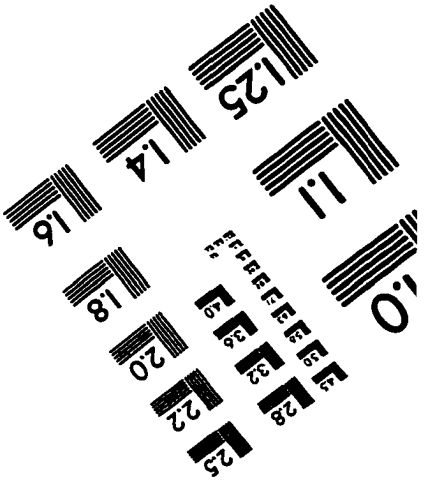












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