

2018

Mediating effect of masculinity and femininity on the female preponderance in depression

Tara A. Baluck

Follow this and additional works at: <https://commons.emich.edu/theses>



Part of the [Psychology Commons](#)

Recommended Citation

Baluck, Tara A., "Mediating effect of masculinity and femininity on the female preponderance in depression" (2018). *Master's Theses and Doctoral Dissertations*. 993.
<https://commons.emich.edu/theses/993>

This Open Access Dissertation is brought to you for free and open access by the Master's Theses, and Doctoral Dissertations, and Graduate Capstone Projects at DigitalCommons@EMU. It has been accepted for inclusion in Master's Theses and Doctoral Dissertations by an authorized administrator of DigitalCommons@EMU. For more information, please contact lib-ir@emich.edu.

Mediating Effect of Masculinity and Femininity on the Female Preponderance in Depression

by

Tara A. Baluck

Thesis

Submitted to the Department of Psychology

Eastern Michigan University

in partial fulfillment of the requirements

for the degree of

DOCTOR OF PHILOSOPHY

in

Clinical Psychology

Thesis Committee:

Stephen Jefferson, PhD, Chair

Michelle Byrd, PhD

Natalie Dove, PhD

January 15, 2018

Ypsilanti, Michigan

Acknowledgments

First and foremost, I would like to thank those who served on my thesis committee, Dr. Michelle Byrd, Dr. Natalie Dove, and especially, my thesis chair, Dr. Stephen Jefferson, for their interest in the project and their invaluable feedback throughout this process. Thanks also to my amazing parents, Jim and Renee Baluck, for their unwavering support and encouragement, and to my brother, James, for the comic relief. Finally, thanks to my friends, especially Amie Paggeot, Sharon Nelson, Monica Lackups, and Krupa Hedge, who saw to it that I didn't completely lose sight of my own mental health while researching mental health.

Abstract

Sex differences in major depressive disorder have been a consistent research finding, with women receiving a diagnosis nearly twice as often as men. A substantive amount of research has attempted to address this preponderance. One area that warrants further investigation is the role that gender, a social construct that, in part, refers to the degree to which one enacts traditionally masculine and/or feminine traits, may play in mediating the relationship between sex and depressive symptoms. Secondary data analysis was conducted using a previously collected sample of undergraduate students from a moderately sized Midwestern university. Measures include the Extended Personal Attributes Questionnaire (EPAQ), the Center for Epidemiological Studies—Depression Scale (CES-D), and a demographic form used to assess self-reported expression of gender traits, depressive symptoms, and sex, respectively. Results of the present study indicate that masculinity and femininity mediate the relationship between sex and self-reported depressive symptoms.

Table of Contents

Acknowledgments.....	ii
Abstract.....	iii
List of Tables	vii
Introduction.....	1
Literature Review.....	3
Sex and Gender.....	3
Psychological Androgyny.....	4
Positive and Negative Masculinity and Femininity.....	7
The Female Preponderance in Depression	9
Minority stress	9
Victimization and chronic stress	10
Daily stress associated with division of labor disparities.....	11
Emotion regulation	12
Emotion regulation	12
Cognitive style.....	14
Biological explanations	14
Potential for under-diagnosis in males	15
Research Design and Methodology	16
Purpose	16

Design 16

Participants 17

Measures 18

 Masculinity and femininity 18

 Depression 20

Procedures 21

Results 23

 Descriptive Data 23

 Preliminary Hypotheses 23

 Pearson Correlations 24

 Mediation 25

Discussion 27

 Interpretation of Findings 27

 Limitations and Suggestions for Future Research 28

Conclusions 32

References 33

APPENDICES 54

Appendix A: Consent Form 55

Appendix B: Demographic Form 57

Appendix C: Extended Personality Attributes Questionnaire 59

Appendix D: Center for Epidemiological Studies Depression Scale..... 61

List of Tables

Table	Page
1 Mean Comparisons of the Extended Personal Attributes Questionnaire (EPAQ) and Center for Epidemiologic Studies Depression Scale (CES-D) by Sex	24
2 Pearson Correlations Between Subscales of the Extended Personal Attributes Questionnaire (EPAQ) and Center for Epidemiologic Studies Depression Scale (CES-D) Scores by Male and Female Subgroups.....	25

Introduction

Major depressive disorder (MDD) is among the most common and the most costly of all mental health problems. About 17% of all adults will experience a depressive episode in their lifetime (Kessler, Chiu, Demler, & Walters, 2005), and the subsequent lost wages, health care costs, and decreased productivity cost society over \$80 billion per year (Greenberg et al., 2003). Sex difference in the diagnosis of MDD has been a consistent research finding, with women receiving a diagnosis nearly twice as often as men (Kessler, McGonagle, Swartz, Blazer, & Nelson, 1993; Nolen-Hoeksema, 1990, 1995; Weissman et al., 1996). Considering the immense personal and economic impact of MDD, it is imperative that we learn more about what makes some individuals more susceptible to depression than others.

A large body of literature exists that attempts to address the female preponderance in MDD (see Antony & Barlow, 2002; Denmark & Paludi, 1993; Formanek & Gurian, 1987; Kessler et al., 2005; Klonoff, Landrine, & Campbell, 2000; Landrine, 1987; Nolen-Hoeksema, 2001; Redman, Webb, Hennrikus, Gordon, & Sanson-Fisher, 1991; and Seeman, 1997), though none of these explanations have fully accounted for the discrepancy. One potentially promising area that has thus far been relatively overlooked is the role gender plays in the relationship between sex and psychopathology.

The purpose of the present study is to elucidate this relationship with respect to self-reported experience of depressive symptoms. Toward this end, gender will be defined, followed by a review of how this construct is empirically associated with psychopathology. The following literature review will address all crucial elements and constructs included in this study, beginning with clarification of gender-related terms. A history of gender in relation to psychological well-being will follow. The review of gender will conclude with a discussion of the more recent

inclusion of socially lauded and denigrated aspects of gender. Next, the extant research regarding the female preponderance in depression will be reviewed. Finally, factors that have been previously hypothesized to account for this preponderance are discussed.

Literature Review

Sex and Gender

Gender is defined as a social construct manifested by the degree to which one enacts traditionally masculine or traditionally feminine traits. Not to be confused with sex, which categorizes organisms as “male” versus “female” based on biological characteristics, *gender* refers to the characteristics, traits, and behaviors that society considers appropriate for men and women (Unger, 1979). Stated slightly differently, sex refers to a biological category; gender putatively denotes the social and psychological aspects of sex (Pryzgoda & Chrisler, 2000). Traditionally, an individual’s gender is thought to be comprised of “masculinity” or “femininity.” *Masculinity* in Western cultures is characterized by competitiveness, independence, stoicism, and dominance. *Femininity*, in contrast, is characterized by such traits as communality, nurturance, submissiveness, and emotional expressiveness. From these scripts, society derives roles for men and women. For example, “masculine males” and “feminine females” are described as *sex-typed* because they are high on those traits that are deemed socially “appropriate” for their respective sex (Kohlberg, 1966). Conversely, the term *cross-typed* has been used to refer to individuals who possess high levels of traits traditionally associated with the other sex and lower levels of traits traditionally associated with their own sex (i.e., masculine females and feminine males). It is important to note that an individual’s sex and gender are not necessarily congruent. Masculine males and feminine females may be the most common and the most socially acceptable gender/sex pairings, but these are certainly not the only possible outcomes (Pearson & Cooks, 1995).

Initially, gender role research posited that as masculinity increased, femininity decreased and vice-versa. For example, Terman and Miles (1936) depicted masculinity and femininity as

mutually exclusive. They conceptualized gender as a one-dimensional continuum with extreme masculinity on one end and extreme femininity on the other. In this model, individuals who fell somewhere in between would have, for example, slightly masculine or slightly feminine characteristics, and individuals who fell exactly in the middle would have no masculine characteristics and no feminine characteristics.

Psychological Androgyny

Terman and Miles' (1936) construct of gender identity was widely accepted by social scientists until the 1970s, when researchers in a variety of disciplines began to consider the possibility that masculinity and femininity were actually separate entities, and not necessarily mutually exclusive of one another (e.g., Bazin & Freeman, 1974; Bem, 1974; Bem & Lewis, 1975; Bem & Lenney, 1976; Block, 1973; Gelpi, 1974; Harris, 1974; Hefner, Rebecca, & Oleshansky, 1975; A. Heilbrun, 1976; C. Heilbrun, 1973; Kaplan & Bean, 1976; Pleck, 1975; Secor, 1974; Spence, Helmreich, & Stapp, 1975; Stimpson, 1974). According to this view, an individual could possess a multitude of both masculine and feminine traits or, conversely, very few masculine or feminine traits, in addition to just being exclusively masculine, feminine, or neither. To this end, Bem (1974) theorized that individuals could fall into one of four gender categories: a) high on masculine traits, but low on feminine traits; b) high on feminine traits, but low on masculine traits; c) high on both feminine and masculine traits, and; d) low on both feminine and masculine traits. Bem categorized individuals who scored high on both femininity and masculinity *psychologically androgynous*. Individuals who scored low on both constructs were later categorized as *undifferentiated*. To systematically categorize individuals into these four groups, Bem developed the Bem Sex Roles Inventory (BSRI; Bem, 1974). Cross-validation

(Walkup & Abbot, 1978), concurrent validity (Wilson & Cook, 1984), internal consistency, and test-retest reliability (Bem, 1974) studies all demonstrated that the BSRI has adequate psychometric properties.

Based on subsequent work with the BSRI, Bem and colleagues proposed that psychologically androgynous men and women were likely to have superior mental health outcomes as compared to their undifferentiated, masculine, or feminine counterparts. Specifically, psychologically androgynous individuals, who possess a larger variety of interpersonal skills and coping strategies as a result of their combined repertoire of masculine and feminine characteristics, would have improved psychological functioning, especially in terms of problem solving strategies and social interactions. For example, consider some of the masculine responses (e.g., aggressiveness, self-reliance, or physical violence) and feminine responses (e.g., nurturance, collaboration, or submission) available for an individual facing a challenge. Depending upon the nuances of a given situation, either a masculine or feminine behavior set may be significantly more or less adaptive. If men and women are restricted to responding to situations in only a sex-typed manner, the options available to them may or may not include those which would be most adaptive for the situation at hand. If, however, men and women could engage in *either* masculine or feminine responses regardless of their sex, they would have a larger pool of options to select from, and, presumably, would be able to respond in a manner that was most adaptive for that situation. Bem and colleagues went on to publish several studies with findings that are consistent with this view (Bem & Lewis, 1975; Bem & Lenney, 1976; Bem, Martyna & Watson., 1976; Bem, 1977).

Although Bem's theory of psychological androgyny stimulated a great deal of research over the next four decades, it received mixed empirical support. With regard to salubrious

correlates, possessing a combination of both masculine and feminine traits has been associated with higher levels of life satisfaction (Norlander, Erixon, & Archer, 2000), assertiveness (Stake, 1997), secure attachment (Shaver, Papalia, Clark, & Koski, 1996), emotional intelligence (Guastello & Guastello, 2003), effective coping (Cheng, 2005; Stake, 1997), self-esteem and self-concept (Flaherty & Dusek, 1980; Norlander et al., 2000; Shimonaka, Nakazato, Kawaai, & Sato, 1997), creativity (Jonsson & Carlsson, 2000; Keller, Lavish, & Brown, 2007), quality decision-making (Kirchmeyer, 1996), egalitarianism (Gunter & Gunter, 1990), and mental health (Lefkowitz & Zeldow, 2006). In addition, Green and Kendrick (1994) found that heterosexual men and women rated androgynous individuals as more desirable as romantic partners. Similarly, Antil (1983) found that heterosexual couples reported happier marriages when their partner was viewed as being high on androgyny or femininity. Androgyny was also associated with lower levels of aggressiveness (Sawrie, Watson, & Biderman, 1991), anxiety (Campbell, Stephen, & Langmeyer, 1981), and, along with masculinity, lower levels of depression (Cheng, 1999).

By contrast, other studies have yielded more ambiguous results with respect to the benefits of androgyny. Several studies indicated that while women benefited from possessing high levels of both masculine and feminine traits, men did not. Specifically, androgynous women scored higher on measures of self-worth (Rose & Montemayor, 1994), ego development (Scoe, 1995), general coping (May & Spangenberg, 1997), and mental health (Burchardt & Serbin, 1982), but these results were not true for men. It should be noted that although these scores were significantly different, it is unclear what these differences mean with respect to ecological validity. Still other studies found that androgynous individuals were not significantly healthier than others (Lubinski, Tellegen & Butcher, 1981; O'Heron & Orlofsky, 1990).

Furthermore, a substantial number of studies have found that masculinity alone, and not a combination of masculinity and femininity, is the best predictor of overall psychological well-being (Antill & Cunningham, 1979, 1980; Cook, 1985; Jones, Chernovetz, & Hansson, 1978; Kopper & Epperson, 1996; Lundy & Rosenberg, 1987; Markstrom-Adams, 1989; Powell & Butterfield, 1979; Whitley, 1983), even when adopted by women (Anderson, 1986; Baril, Elbert, Mahar-Potter, & Reavy, 1989; Heilbrun, 1981; Younger, 2002). This literature indicates that self-ratings of high femininity and androgyny have demonstrated either null findings or a negative association with positive mental health outcomes.

Positive and Negative Masculinity and Femininity

More recent research has re-evaluated the way androgyny has been conceptualized (Woodhill & Samuels, 2003, 2004). Bem's original depiction of androgyny was of a balanced identity that combined the virtues of both femininity and masculinity. However, gender stereotypes are not comprised of only virtues (Kelly & Worrell, 1977; Ricciardelli & Williams, 1995). Negative aspects are involved as well and may even be dominant (Spence, Helmreich, & Holahan, 1979). Therefore, a negative androgyny may also result when an individual endorses high levels of unfavorable or undesirable masculine and feminine traits. In this case, rather than having access to a larger repertoire of socially desirable and adaptive behaviors to pull from, as Bem proposed, the negatively androgynous individual draws from an expanded pool of socially undesirable or maladaptive behaviors. This could explain why testing Bem's theory over the past four decades has yielded such contradictory results across studies.

Woodhill and Samuels (2003) tested the constructs of positive and negative androgyny by using a methodology formulated by Schullo and Alperson (1984) for scoring the Extended

Personal Attributes Questionnaire (EPAQ; Spence et al., 1979). The EPAQ had been widely used to assess androgyny, masculinity, and femininity, but the new scoring system also assessed the social desirability of each gender trait. Additionally, by combining scores on the masculinity and femininity subscales, Woodhill and Samuels further used the EPAQ to assess participants' levels of androgyny, which had not previously been done. With the new scoring method, Woodhill and Samuels described seven distinct gender categories, including the following: high on socially undesirable masculine characteristics (M-), high on socially desirable masculine characteristics (M+), high on socially undesirable feminine characteristics (F-), high on socially desirable feminine characteristics (F+), high on socially undesirable masculine and high on socially undesirable feminine characteristics (A-), high on socially desirable masculine and socially desirable feminine characteristics (A+), or androgynous undifferentiated (AU). Individuals in the AU category endorsed a fairly equal number of negative and positive characteristics from both the masculine and feminine categories. Woodhill and Samuels found that A+ participants scored higher on measures of mental health and well-being than any other group (with the exception of masculine positive, which was negligibly higher on some outcome measures). This study suggests that classifying gender identity into positive and negative subtypes is an important distinction. Furthermore, failure to have done so in the past may explain some of the inconsistencies in the previous research on gender identity.

Baluck (2008) examined these socially desirable and socially undesirable components of masculinity and femininity using several measures of psychopathology. The results of this study indicate that consideration of the social desirability of gendered traits is important: for both men and women, M+ was negatively correlated with symptoms of depression, anxiety, and maladaptive forms of emotion regulation; conversely, M- was positively correlated with

symptoms of depression and anxiety and maladaptive forms of emotion regulation. Interestingly, F+ was negatively correlated with symptoms of depression, anxiety, and maladaptive forms of emotion regulation for women, but not for men. Baluck suggested that this may be due to the continued social unacceptability of many cross-typed behaviors in boys and men relative to girls and women.

The Female Preponderance in Depression

The female preponderance in MDD diagnoses first appears during puberty (Whiteford, 2013) and increases with age (Webb & VanDenver, 1985) into late adulthood (Daley & Hammen, 2002; Nolen-Hoeksema & Girgus, 1994). After age 65, depression rates decline for both men and women, and the sex gap decreases to some extent (Bebbington, et al., 2003; Patten et al., 2006). Interestingly, puberty is time that boys and girls begin to more fully explore their own gender and the meaning of gender in their culture. This may involve reexamining and reorganizing gender-related ideas, increased or decreased flexibility in one's own gender identity, and increased or decreased flexibility in the expectations one has for the gendered behavior of others (Alfieri, Ruble, & Higgins, 1996; McHale, Updegraff, Helms-Erikson & Crouter, 2001). During this point in development, the childhood notion that one's own sex is "better" than the other sex is also dispelled (Powlishta, 1995). For girls, the realization that women are often disadvantaged in society may lead to increased depression and anxiety as they struggle with the formation of their gender identity and the social consequences of being female in society. For boys, a complimentary process of self-assuredness may occur as they begin to understand that men implicitly and explicitly represent prototypical humanity in most cultures.

Minority stress. When women endorse the traditional view that women ought to be

subordinate to men in society, some theorists argue that such attitudes create internal conflicts. Specifically, these women go on to hold the belief that men should be dominant over women, while simultaneously resenting this hierarchy. Glick and Fiske (1999) aptly describe how paternalistic social systems pressure women to adopt subordinate roles in society by means of the metaphorical use of a stick and carrot:

Given men's ability to reward women who adopt traditional roles and punish those who do not, it is not surprising that many women would adopt benevolent beliefs about men that justify male power. The women who adopt such beliefs (and, presumably, the more traditional roles that go along with them) are, at the same time, increasing their dependence on men, providing strong reasons both to resent and to respect men's power. In short, we speculate that the greater the dependence a woman has on men, the more she is likely to experience both benevolence and hostility toward men; the former because of her recognition of her investment in men and the latter because of resentment over her dependence. (p. 533)

This conflict typifies what researchers have called *minority stress*, the idea that experiencing relatively elevated levels of psychological distress (as compared to dominant group members) is incumbent with having a marginalized social identity (Meyer, 2003). Thus, some researchers have argued that the difference we see in rates of depression and anxiety between women and men is an artifact of this dynamic (Klonoff et al., 2000).

Victimization and chronic stress. The literature also indicates that women and girls, as compared to boys and men, experience higher levels of victimization and chronic stress across the lifespan, which may also contribute to the female preponderance in depression. Specifically, women and girls are more likely to be the victims of sexual and physical abuse, sexual

harassment, and are more likely to live in poverty, all of which can negatively affect mental health and lead to increased anxiety and depression (Antony & Barlow, 2002; Kessler et al., 2005; Murphy, 2003). Klonoff and colleagues (2000) suggest that the effects of sexual harassment and discrimination can be especially devastating, since being a victim of sexual harassment or discrimination can lead to self-objectification and low self-worth. Women with these kinds of negative life experiences may be primed to more readily adopt a negative view of femininity and of themselves; this might subsequently prompt them to match their thoughts and feelings to their behaviors, making them more likely to enact more of the negative aspects of femininity when they express this part of their identities. This likely would set off a negative spiral wherein these women, possessing more traditionally negative feminine behaviors and attitudes, may experience more discrimination because others perceive them in a stereotypically negative manner and react in kind.

Daily stress associated with division of labor disparities. It has also been noted that the division of labor among heterosexual couples tends to favor the male partner, which can contribute to depression symptoms (Bird, 1999; Entwisle & Doeringer, 1981; Weiss, 1990). Women are disproportionately responsible for tasks that demand immediate action, like taking care of sick family members and nursing infants, as well as time-consuming and monotonous daily tasks that require regular and constant involvement, such as laundry and food preparation. In contrast, stereotypical responsibilities for men, such as mowing the lawn or repairing an appliance, occur with less regularity and can often be delayed until a more convenient time, making them typically less numerous and less stressful. Rosenfield (1989) found that women and men have equal levels of depression symptoms in dual-earner couples with equal division of household labor, but these types of partnerships are the exception. Despite significant increases

in the number of women who work outside the home, men's level of involvement in housework overall has been found to increase very little (Shelton, 1992), and men whose wives work outside the home spend the same amount of time doing housework as those whose wives are full-time homemakers (Bernardo, Shehan, & Leslie, 1987; Pleck 1985).

Emotion regulation. The manner in which individuals regulate their emotions may play a role in the development and maintenance of depression and anxiety symptoms and other forms of psychopathology (Nolen-Hoeksema & Corte, 2004; Sachs-Erickson & Ciarlo, 2000). Emotion regulation strategies differ with respect to their overall adaptability and associations with various mental health outcomes (Gross, 1998; Gross & John, 2003; Haga, Kraft, & Corby, 2009; John & Gross, 2004). Men and women have been found to differ in the rates in which they engage in disparate emotion regulation strategies (Gross, 1998; Gross & John 2003; Haga, Kraft & Corby, 2009; Hayes, Strosahl, & Wilson, 1999; John & Gross, 2004) and to sometimes differentially utilize the same strategy (Simpson & Strohl, 2004).

Some forms of emotion regulation have been shown to have detrimental effects upon mental health. Mood and anxiety disorders in particular are associated with use of maladaptive emotion regulation styles (Barber, Bagnsby, & Munz, 2010; Cambell-Sills & Barlow, 2007; Gross, 1998) and the disruption of more adaptive emotion regulation strategies (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008). *Experiential avoidance* is one such maladaptive form of emotion regulation. It can be defined as an unwillingness to attend to one's internal experiences, and the subsequent avoidance of triggering such experiences (Hayes et al., 1996; Levin et al., 2012). Experiential avoidance is thought to be part of a larger process of emotion regulation that involves poor emotional awareness, not accepting emotions, and a poor ability to modulate emotional responses (Grazt & Roemer, 2004). Women, racial minorities, and other

marginalized groups are more likely to use experiential avoidance, perhaps because less-advantaged groups are exposed to more difficult emotional material, and avoidance is a common coping strategy throughout the population (John & Gross, 2004). Experiential avoidance has been found to be strongly correlated with depression and anxiety (Forsyth, Parker, & Finlay, 2003; Marx & Sloan, 2005; Roemer, Salters, Raffa, & Orsillo, 2005), and with general psychopathology (Hayes et al., 2004).

Expressive suppression is a form of emotion regulation which involves inhibiting emotion-expressive behavior, for example, keeping a “poker face” while holding a great hand when playing a game of cards (Geisler & Schröder-Abé, 2015). Though expressive suppression can at times be beneficial (such as in the previous example), this emotion regulation strategy is generally considered to be unhealthy when it is used excessively or inflexibly (Gross & John, 2003). Because it occurs late in the emotion-generative process and targets only the behavioral aspects of emotion, emotional suppression is not helpful in reducing negative emotions and may inhibit the expression of positive ones, thus limiting positive emotional health. When used to excess, expressive suppression may result in an accumulation of lingering, unresolved emotions. Additionally, expressive suppression requires individuals to continually manage their emotion response tendencies, which may reduce performance in emotionally-charged social contexts, since cognitive resources are already devoted to suppression (Gross & John, 2003). Perhaps most detrimental, expressive suppression can create a sense of incongruence between inner experience and outer expression (Rogers, 1951). This incongruence may lead to feelings of not being true to oneself and of being inauthentic with others, which can lead to more negative emotions and alienation from the self and from society as a whole (Sheldon, Ryan, Rawsthorne, & Ilardi, 1997). While men are more likely to engage in expressive suppression in general (Haga, Kraft, &

Corby, 2009), some researchers suggest that the manner in which men and women use expressive suppression differs significantly. For instance, Simpson and Strohl (2004) state that, in order to “keep up” the appearance appropriate of their respective gender roles, men suppress positive emotions and women suppress negative ones. Of course, the methods various authors have used in their research may also account for the apparent male prevalence in self-reported use of expressive suppression. That is, men may be more likely to report using expressive suppression precisely because it is recognized to be a masculine form of emotion regulation and, as such, men may feel more comfortable endorsing it or may feel that endorsement is expected of them.

Cognitive style. Some researchers point to sex differences in men and women’s cognitive style as an explanation for the sex-linked differences in depression (Nolen-Hoeksema, 1995; 2004; Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008; Sachs-Erickson & Ciarlo, 2000). Specifically, women are more likely than men to engage in rumination (i.e., respond to negative mood with repetitive thoughts and behaviors that turn one’s attention toward the symptoms, consequences, and meaning of one’s depressed mood [Nolen-Hoeksema, 1990; Nolen-Hoeksema & Corte, 2004]). Examples of ruminative thoughts include “*Why do I feel this way?*” or “*What have I done to deserve this?*” According to Just and Alloy (1997), rumination prolongs and intensifies depressed mood and can increase the likelihood of the onset of a depressive episode. Many characteristics of the feminine gender identity are quite similar to the thought processes involved in rumination, including emotionality, moodiness, lack of assertiveness, lack of self-efficacy, and, above all, internalization.

Biological explanations. Other researchers have postulated that either biological predisposition or hormonal activity, especially during puberty and menopause, may be

responsible for the female preponderance in depression (Denmark & Paludi, 1993; Formanek & Gurian, 1987; Seeman, 1997). However, hormonal fluctuations have been found to have a role of equal significance on men's anxiety and depression levels (Nolen-Hoeksema, 2001). All told, these findings provide a partial explanation for the female preponderance in depression; however, even with these factors accounted for, significant sex differences remain.

Potential for under-diagnosis in males. It should also be noted that some researchers suggest that the number of men and women with depressive disorders are equally represented in nature, but women and girls are more likely than men and boys to receive formal diagnoses for several reasons (Landrine, 1987). For example, since women are thought to be more emotionally introspective and socially sanctioned to openly discuss their feelings than men, it is generally assumed that women are more likely to directly report and seek treatment for depressive symptoms than men. Similarly, it has been suggested that some clinicians are "sexist diagnosticians" who label women as "depressed" with less reservation than they would a man presenting with the same symptoms (Redman et al., 1991).

Research Design and Methodology

Purpose

Additional research is necessary to further determine the specific psychological benefits associated with positive androgyny, masculinity, and femininity as well as the potential risks associated with their negative counterparts. Secondary data analysis was used to examine these interactions. Firstly, it was necessary to demonstrate that previously established associations between gender endorsement and sex, as well as the association between sex and affect, are valid for the sample. Toward this end, two preliminary analyses were conducted: firstly, that women endorse higher levels of feminine traits (F+ and F-) than men. Next, that men endorse higher levels of masculine traits (M+ and M-) compared to women. In addition, it was hypothesized that women's scores on measures of depressive symptoms would be higher than the scores obtained for men. Findings in the opposite direction from those predicted above would indicate a substantial deviation in our sample from that of the general population.

A specific pattern of correlational relationships was predicted between scales measuring depression and positive/negative masculinity and femininity. Specifically, M+ and F+ were predicted to be negatively correlated with participants' scores on the measure of depressive symptoms for both men and women. In contrast, M- and F- were predicted to be positively correlated with scores on the measures of depressive symptoms for both men and women. Finally, M+, M-, F+, and F- were predicted to act as parallel mediators with respect to the relation of sex and depression.

Design

This study employed secondary data analysis using a sample collected during the 2010-

2011 academic year as part of a larger scale exploratory study. Due to the nature of the research question and the limitations of secondary analytic research, the design of this study is limited to a quasi-experimental, two group, post-test only design. Because we cannot randomly assign participants' sex or gender attitudes, group membership is pre-determined, and, consequently, participants were divided into male and female groups via their self-report.

Participants

Individuals 18 years and older were recruited via in-class announcements from introductory-level psychology classes at a moderately sized, English-speaking Midwestern university. In return for their voluntary participation in the study, participants were given credit for completion of a course requirement or awarded extra credit, at the discretion of their instructors. Informed consent (see Appendix A) was addressed when individuals registered to participate in the study online. There were no exclusionary criteria for participating in the original study, though data from individuals who did not self-identify their sex as either "female" or "male" was excluded for the purposes of the present analysis, as these individuals could not be assigned into male or female subcategories and were too heterogeneous and too few in number to comprise an alternate sex category or categories.

There were several advantages in using data from this undergraduate student population. First, the variables of interest were expected to be amply present in the resultant sample. With respect to androgyny in particular, it was expected that the obtained sample would include a larger proportion of men who both possess higher levels of feminine traits as compared to other environments that may emphasize more traditional gender roles. Though the existence and accurate reporting of cross-typed traits is less of a concern for women (due to the greater

tendency and societal acceptability for women to behave in a cross-typed manner), this population was also expected to provide ample numbers of women who endorse high levels of masculine traits based on the extant literature. Considering the prevalence of depression, it was also expected that a sufficient number of both men and women will report significant levels of depressive symptoms.

Measures

Masculinity and femininity. Masculine and feminine traits were assessed with the Extended Personal Attributes Questionnaire (EPAQ; Spence, et al., 1979), one of the most commonly used measures to assess masculinity, femininity, and androgyny. It was derived from the Personal Attributes Questionnaire (PAQ, Spence & Helmreich, 1978; Spence, Helmreich, & Stapp, 1975), which was used to measure socially desirable agentic (e.g., independent, decisive) and communal (e.g., kind, helpful) traits. The extended version is unique in that it also includes items measuring socially *undesirable* agentic (e.g., arrogant, hostile) and communal traits (e.g., gullible, fussy). Respectively, these four domains comprise four scales: socially desirable masculinity (M+), socially desirable femininity (F+), socially undesirable masculinity (M-), and socially undesirable femininity (F-). The F- scale is unique in that it can be further divided into two subscales: a verbal passive-aggressiveness subscale (Fva-), which includes such traits as being whiny or nagging, and an excessive communality subscale (Fc-), which includes such traits as being gullible or subordinating oneself to others. In total, the EPAQ contains 40 bipolar items, which are scored on a 5-point Likert scale ranging from 0, *not at all*, to 4, *very*. There are eight items on each of the previously mentioned scales (with the two F- subscales containing four items each), plus an additional eight items that are bipolar masculine-feminine items. This

study will use the EPAQ as modified by the interpersonal perception method (Schullo & Alperson, 1984), which reduces the total items to 32 by removing the eight bipolar masculine-feminine items. Higher scale scores indicate greater levels of the respective gender construct.

In a large-scale psychometric analysis using six independent samples, factor analyses supported a four-factor (M+, M-, F+, and F-) structure (Helmreich, Spence, & Wilhelm, 1981). Concurrent, predictive, and construct validity of the PAQ and the EPAQ have been supported by several investigations (Spence & Helmreich, 1978, 1979; Spence et al., 1979). Convergent validity for the M+ and F+ subscales has been demonstrated with other gender measures, including the Bem Sex Roles Inventory (Spence & Buckner, 2000). Saragovi, Koestner, Di Dio, and Aubé (1997) found that internal consistency for the EPAQ subscales are adequate: M+ ($\alpha = .74$); M- ($\alpha = .73$); and F+ ($\alpha = .79$) with the exception of F-, which is poor ($\alpha = .51$). The poor internal consistency of F- may be related to the fact that it is comprised of two distinct subscales (Fc- and Fva-). Studies that have calculated Cronbach's alpha for these subscales have not yet been conducted.

Traditionally, raw scores on the M+, M-, F+, and F- subscales are summed and compared to the medians for the whole group, thus yielding four categories of gender role identity (Woodhill & Samuels, 2003): feminine, masculine, androgynous, and undifferentiated (which can be further broken down in terms of their social desirability or undesirability). However, this categorical method of classification is a problematic in that it treats all members within a category as though they have identical scores and thus does not account for variation within the subcategory. To address this, the present study will analyze the data as continuous rather than categorical.

Depression. Depression symptoms were assessed using the Center for Epidemiological Studies—Depression Scale (CES-D; Radloff, 1977). The CES-D scale is a 20-item self-report scale designed to measure depressive symptoms in the general population such that high-risk individuals can be identified, as well as for research purposes. The CES-D items consist of symptoms associated with depression that have been used in previously-validated longer scales (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961; Raskin, Schulterbrandt, Reatig, & McKeon, 1969; Zung, 1965). The main components of depressive symptoms, including depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance, were identified from clinical literature and factor analyses. Items are rated on a 4-point scale ranging from 0 to 3 in terms of their frequency during the last week, ranging from *rarely or none of the time* (less than 1 day), *some or a little of the time* (1-2 days), *occasionally or a moderate amount of time* (3-4 days), to *most or all of the time* (5-7 days). Questions 4, 8, 12, and 16 are reverse scored. Potential scores range from 0 to 60, with higher scores indicating greater levels of depressive symptoms. Scores exceeding 16 are considered indicative of depression (Radloff, 1977) and have been extensively used as a cut-off point. However, false positives on the order of 15% to 20% have resulted from use of this cut-off point, leading some researchers to suggest that a higher cut-off point be used (Boyd, Weissman, Thompson, & Myers, 1982; Zich, Attkisson, & Greenfield, 1990).

Evidence of both construct and concurrent validity (by clinical and self-report criteria) have been reported (Radloff, 1977). However, there is evidence that the CES-D may not be an ideal screening tool for clinical depression or major depression (Roberts, Vernon, & Rhoades, 1989), though it is generally considered to be an appropriate measure for ascertaining symptom level. The CES-D has been shown to be a reliable measure for assessing the number, type, and

duration of depressive symptoms across racial, gender, and age categories (Knight, Williams, McGee & Olaman, 1997; Radloff, 1977; Roberts et al., 1989). High internal consistency has been reported with Cronbach's alpha coefficients ranging from .85 to .90 across studies (Radloff, 1977). Test-retest correlations are moderate (.40 or above for almost all groups studied).

Procedures

The sample which was used for this secondary data analysis was recruited using two online platforms designed for such research. Specifically, students were informed about the study via SONA Systems participant management software. This platform allowed them to read a brief description of the current study and then access a link to the specific questionnaires of this study via SurveyMonkey.com, a website that allows online surveys to be conducted in a secure, password-protected environment. Upon accessing this website, potential participants were given the opportunity to review the Informed Consent Agreement Form (see Appendix A) and subsequently complete a demographic form (see Appendix B), and a series of questionnaires which included the EPAQ (see Appendix C), and the CES-D (see Appendix D) as well as other questionnaires not utilized in the present analysis. These other measures inquired about a variety of mental health-related concerns, including disordered eating behavior, drug and alcohol use, shame, and anxiety. All measures were completed in one, approximately 60-minute session. Finally, participants were given the opportunity to earn course credit in their psychology courses for participating in research like the current study.

Kurtosis and skewness were examined to ensure that data approximated normality, and all the key variables of this study were deemed acceptably normal. Thirty individuals who did not self-identify as "male" or "female" (e.g., those who left the item blank or who self-identified

as transgender/transsexual/other) were excluded from the present analyses. For those participants who remained in the sample, a five-iteration multiple imputation was conducted in SPSS to calculate missing scores, resulting in a bootstrapped sample of 1,805. In multiple imputation, missing values are predicted using existing values from other variables in the data set. This process is repeated multiple times (typically between three and ten), producing multiple imputed data sets, which are then combined in the overall analysis (Acock, 2005; Scheffer, 2002). Multiple imputation was selected over other methods for dealing with missing data because it is highly flexible; preserves key features of the data set, such as the mean, variance, and regression parameters; and can be used even in situations in which data are not missing completely at random (Blankers, Koeter, & Schippers, 2010).

Results

Descriptive Data

Usable data were obtained for 361 individuals. The majority (76.5%) were female. The sample was relatively diverse with respect to race/ethnicity and is commensurate with the composition of the geographical area where the data were collected: 63.4% identified as White/Caucasian, 19.4% identified as Black/African-American; 2.3% identified as Asian/Asian-American/Pacific Islander, 0.8% identified as Arab/Arab-American, 0.3% identified as Native American/American Indian/Alaskan Native, and 6.6% identified as Other. In addition, another 7.7 % chose not to report their race/ethnicity. Participants ranged in age from 18 to 62, with a mean age of 21.84 as the vast majority (90.7%) were 27 years-old or younger. The sample was predominantly heterosexual (83.9%); 4.6% identified as bisexual; 4.3% identified as gay or lesbian. An additional 7.2% of the sample chose not to report a sexual orientation.

Preliminary Hypotheses

Four independent sample t-tests were conducted to determine whether a preponderance of sex-typed gender traits was present for F+, F-, M+, and M-. On average, women were found to obtain higher scores on F+ and F- than men, and men, on average, were found to obtain higher scores on M+ and M- than women. Next, an independent sample t-test was conducted to ensure that women obtained higher average depression symptom scores than men. On average, women obtained higher scores on depressive symptoms than men (see Table 1 for means). These findings confirm all preliminary hypotheses and establish the necessary preconditions to proceed with the next phase of hypothesis testing. Table 1 includes the results from these t-tests.

As the results of the above preliminary analyses are all in the predicted direction, further

analyses were then conducted.

Table 1

Mean Comparisons of the Extended Personal Attributes Questionnaire (EPAQ) and Center for Epidemiologic Studies Depression Scale (CES-D) by Sex

EPAQ Subscales	Mean (SD)		<i>t</i>	<i>p</i>
	Women	Men		
M+	27.35 (4.96)	28.81 (5.32)	4.80	.000
M-	21.18 (4.36)	23.55 (5.12)	8.02 ¹	.000
F+	32.98 (4.48)	29.86 (4.84)	-11.49	.000
F-	21.34 (4.43)	18.61 (4.88)	-10.11	.000
CES-D Total	18.36 (10.43)	14.13 (8.60)	-7.40 ¹	.000

¹Corrected for inequality of variance.

Pearson Correlations

One-tailed Pearson correlations were calculated to determine whether the socially desirable gender identities of M+ and F+ would be negatively associated with depression.

Contrastingly, socially undesirable gender role endorsement (i.e., M-, and F-) was predicted to be positively associated with depression scores. These hypotheses were confirmed (see Table 2).

Table 2

Pearson Correlations Between Subscales of the Extended Personal Attributes Questionnaire (EPAQ) and Center for Epidemiologic Studies Depression Scale (CES-D) Scores by Male and Female Subgroups

Scale	CES-D Total	M+	F+	M-	F-
CES-D	(.89/.92)	-.41**	-.22**	.08**	.25**
M+	-.41**	(.77/.74)	.24**	.13**	-.34**
F+	.01	.25**	(.79/.79)	-.35**	-.07*
M-	-.05	.62**	.14**	(.78/.69)	.28**
F-	.37**	-.22**	.26**	.23**	(.77/.73)

Note. Scores for men are in the lower left of the table while scores for women are in the upper right. Cronbach’s alphas are included along the diagonal (men/women).
 ** $p < .01$. * $p < .05$.

Mediation

I posited that the association between gender and depression would be mediated by an individual’s scores on the four scales of the EPAQ. Hayes’ (2013) mediation model, using the PROCESS macro in SPSS, was used to test this hypothesis. PROCESS allows for the calculation of bias-corrected confidence intervals using a bootstrapping sampling technique with 1,000 resamples. Participants’ M+, M-, F+ and F- scores were entered as parallel mediating variables, participants’ self-reported sex as the independent variable, and participants’ depressive symptoms scores as the dependent variable. A significant indirect effect for three of the four gender variables (M+, M-, and F-) was found. The total, direct, and indirect effects are shown in Figure 1.

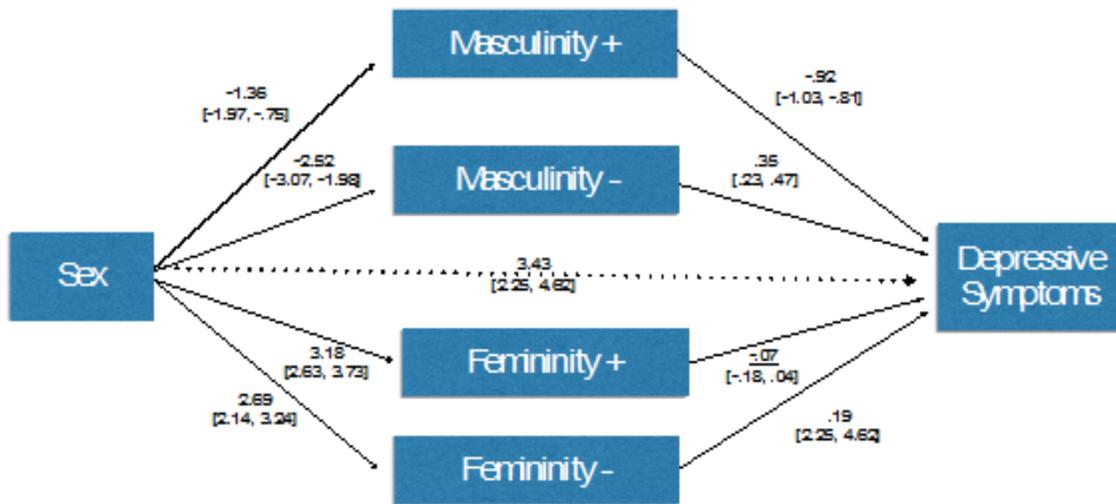


Figure 1. Mediation Model of M+, M-, F+, and F- on the Relationship between Sex and Depressive Symptoms. Values along path are unstandardized beta coefficients with confidence intervals provided in brackets [lower, upper]. The direct effect of sex on depressive symptoms is listed along the dotted lines. Non-significant findings are underlined. R² for the overall equation was .26.

Discussion

Interpretation of Findings

The present study aimed to provide further clarity with respect to the relationship between socially desirable and undesirable gender identities and depression symptoms. In service of this goal, mean differences between male and female subgroups and a subsequent model of mediation were tested to determine whether gender has an indirect effect on the relationship between the sex and depression symptoms. Several significant findings have been yielded.

First, it should be noted that these preliminary results offer further support for the concepts of desirable and undesirable subtypes of masculinity and femininity, and provide further clarity regarding the way these constructs are associated with levels of depression. Specifically, these findings suggest that, like an individual's biological sex, one's gender, and, more importantly, the social desirability of the traits and behaviors which comprise that gender, are predictive of depressive symptoms.

According to these findings, the previously-supported associations of masculinity with psychological well-being and femininity with psychopathology is not entirely accurate. Distinguishing between desirable and undesirable traits suggests that undesirable masculinity is also correlated with the presence of depressive symptoms for both males and females. Additionally, socially desirable feminine traits are not positively associated with depressive symptoms. Although F+ was negatively correlated with depression, evidence for a mediating effect of sex on the relationship between F+ and depression was not found for men or women. The failure to reach significance here may be due to insufficient sample size and that this relationship would have been detected with a larger sample. However, this seems less likely given that a bootstrapping approach was utilized in the test of mediation. However, significant

mediating effects were found for the other three gender variables (M+, M-, and F-).

Limitations and Suggestions for Future Research

Further investigation regarding M+, M-, F+, and F- within the context of diverse populations is an important next step in this line of research. While data were collected for the purposes of the present study regarding many demographic variables of interest, including subjects' racial, ethnic, spiritual, sexual, and political identities, many groups were represented in such small numbers that meaningful conclusions about these unique populations could not be made with the present sample. Thus, future research with larger and more generalizable sample sizes or studies that over-sample populations of interest are recommended.

Future research focusing on sexual minorities is of particular interest, given the extant research that indicates sexual minorities are more likely to be diagnosed with depression and experience related symptoms (D'Augelli & Herschberger, 1993; Russell, 2003), especially in older adulthood (Guasp, 2011). Most research indicates that the increased levels of stress associated with being a sexual minority (i.e., homophobia, rejection from family and friends, and pressure to conform to heteronormative ideals) is responsible for the higher levels of psychopathology seen in these groups (D'Augelli & Grossman, 2001; Leonard et al., 2012). In addition, gay men, lesbians, and bisexual individuals of both sexes are also more likely than heterosexual men and women to engage in cross-gender behaviors and tend to be more accepting of the gender-atypical behaviors of others (Bailey & Zucker, 1995). Thus, the interplay of sexual orientation, biological sex, and gender may significantly impact individuals' level of psychological well-being, especially when moderated by one's level of self-acceptance and degree of social support. Little research has been done in this area to date, though one study of

interest by Remafedi, Farrow, and Deisher (1991) suggests that gay men who attempted suicide were more likely to have a feminine or undifferentiated gender identity than gay men who did not attempt suicide.

A limitation of the present study is that data were collected exclusively from one university in the United States; thus, the overwhelming majority of the study's participants are from an individualistic culture. It is possible that the distribution of gendered traits between men and women and the impact of M+, M-, F+, and F- may be very different in a collectivist culture. Further research into this possibility is recommended.

Another area of suggested research is to more systematically explore the construct of "psychological well-being." Many of the studies in the extant literature described above have used high self-esteem scores, or low scores on measures of psychopathology, to operationally define optimal mental health. This definition is perhaps too broad in some respects, and perhaps too exclusive in others. It may be the case that specific gendered traits are associated with the individual components that together comprise good mental health, as has been suggested in the present study in terms of specific gendered traits being correlated to individual aspects of psychopathology. Of particular interest because of the parallels to stereotypical sex roles would be research on gender and internal and external loci of control, self-efficacy, self-acceptance, and availability of social support.

Like major depression, there are several other mental health conditions that have been found to be significantly more prevalent in women and girls than in men and boys. Overwhelmingly, this pattern is observed in internalizing disorders, the central features of which, as with depression, are largely consistent with F- traits and largely inconsistent with both M+ and M- traits. In particular, women are significantly more likely to develop an anxiety disorder

across the lifespan as compared to men (Angst & Dobler Mikola, 1985; Bilj, Ravelli, & van Zessen, 1998; Bruce et al., 2005; Kessler et al., 1993, 1994, 2005; Regier, Narrow, & Rae, 1990). Prevalence rates were found to be higher in women than men for generalized anxiety disorder, social anxiety disorder, specific phobia, agoraphobia, and panic disorder. Post-traumatic stress disorder (PTSD) and obsessive compulsive disorder (OCD) are also more prevalent in women than in men (see Kessler, Sonnega, Bromet, Hughes, and Nelson [1995], and Breslau, Chilcoat, Peterson, and Schultz [2000], respectively). Finally, women are diagnosed with eating disorders, such as anorexia nervosa and bulimia nervosa, between 9 and 10 times more frequently than men (Freeman, 2005).

In contrast, externalizing problems are more commonly diagnosed in boys and men as compared to girls and women. Here, the key features of these conditions overlap significantly with M- and are largely incompatible with both F+ and F-. For instance, conduct disorder (CD) has been found to be twice as common in boys and young men (Moffit, Caspi, Rutter, & Silva, 2001). Similarly, boys are more likely than girls to receive a diagnosis of intermittent explosive disorder (Kessler et al., 2006). In addition, drug and alcohol use disorders have consistently been found to be more prevalent among men than women (Kessler et al., 1994; Regier et al., 1993), with men being twice as likely as women to meet lifetime diagnostic criteria for any drug use disorder (Conway, Compton, Stinson, & Grant, 2006). The size of the male preponderance differs varies greatly by substance, with sex differences in alcohol use disorders being the most sizeable (Kessler et al., 1994; Grant & Harford, 1995).

Marked sex differences have also been documented in many of the personality disorders, including borderline, avoidant, paranoid, and dependent personality disorder, which have been found to be more prevalent in women (Grant et al., 2004; Swartz, Blazer, George, & Winfield,

1990; Torgersen, Kringlen, & Cramer, 2001; Widiger & Trull, 1993), and schizoid, schizotypal, antisocial, narcissistic, histrionic, and obsessive-compulsive personality disorder (Grant et al., 2004; Trull, Jahng, Tomko, Wood, & Sherr, 2010), which have been found to be more prevalent in men. It is interesting to note that the criteria from the most recent versions of the *Diagnostic and Statistical Manual of Mental Health Disorders (DSM-IV-TR; APA, 2000 and DSM-5; APA, 2013)* for these conditions parallel characteristics of socially undesirable masculine gender traits in instances of a male preponderance, and characteristics of socially undesirable feminine traits in instances of female preponderance. Thus, further exploration of the role masculinity and femininity may play with respect to these personality disorders is important.

Implications with respect to related psychotherapeutic interventions should also be studied. For instance, if we are to conceptualize depression as, at least in part, a deficit of M+ traits and an over-abundance of M- and F- traits, therapeutic techniques that serve to enhance qualities like assertiveness, independence, decision-making, and self-confidence should be especially helpful in ameliorating depression symptoms. It is possible that interventions that target these skill sets, such as Dialectical Behavior Therapy (DBT), work in part by promoting a healthier redistribution of gendered behavior by enhancing M+ traits while simultaneously diminishing M- and F- traits. To this end, it would be interesting to observe how client's distribution of gendered traits and depression symptoms change over the course of such interventions.

Conclusions

The results of this study indicate that gender, and not just biological sex, must be considered when attempting to understand the sex difference in depression. Further research should attempt to uncover whether this is also the case with respect to other mental health issues, as similar mediating relationships may exist. In their totality, the results conflict with the body of literature supporting the notion that masculinity only is associated with lower depression symptoms, and that femininity is positively associated or has no relationship with depressive symptoms. As much of the extant literature did not examine masculinity or femininity in terms of M+, M- and F+, F-, it seems likely that the inclusion of the social-desirability component may account for these inconsistencies.

References

- Acock, A. C. (2005). Working with missing values. *Journal of Marriage and Family*, 67(4), 1012-1028.
- Alfieri, T., Ruble, D. N., & Higgins, E. T. (1996). Gender stereotypes during adolescence: Developmental changes and the transition to junior high school. *Developmental Psychology*, 32, 1129-1137.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., Text revision). Washington, DC: Author.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th edition). Washington, DC: Author.
- Anderson, K. L. (1986). Androgyny, flexibility and individualism. *Journal of Personality Assessment*, 50, 265–278.
- Angst, J., & Dobler-Mikola, A. (1985). The Zurich study: VI. A continuum from depression to anxiety disorders? *European Archives of Psychiatry & Neurological Sciences*, 235(3), 179-186.
- Antill, J. (1983). Sex role complementarity versus similarity in married couples. *Journal of Personality and Social Psychology*, 45, 45–155.
- Antill, J., & Cunningham, J. (1979). Self-esteem as a function of masculinity in both sexes. *Journal of Consulting and Clinical Psychology*, 47, 783–785.

- Antill, J., & Cunningham, J. (1980). The relationship of masculinity, femininity androgyny to self-esteem. *Australian Journal of Psychology*, *32*, 195–207.
- Antony, M. M., & Barlow, D. H. (2002). *Handbook of assessment and treatment planning for psychological disorders*. New York: Guilford Press.
- Bailey, J. M., & Zucker, K. J. (1995). Childhood sex-typed behavior and sexual orientation: A conceptual analysis and quantitative review. *Developmental Psychology*, *31*(1), 43-55.
- Baluck, T. (2008). *Gender identity: Relationships with depression, anxiety, and emotion regulation*. Unpublished manuscript, Kent State University, Kent, Ohio.
- Barber, L. K., Bagnall, P. G., & Munz, D. C. (2010). Affect regulation strategies for Promoting (or preventing) flourishing emotional health. *Personality and Individual Differences*, *49*, 663-666.
- Baril, G. L., Elbert, N., Mahar-Potter, S., & Reavy, G. C. (1989). Are androgynous managers really more effective? *Group & Organization Studies*, *14*, 234-249.
- Bazin, N. T., & Freeman, A. (1974). The androgynous vision. *Women's Studies*, *2*, 185-215.
- Bebbington, P., Dunn, G., Jenkins, R., Lewis, G., Brugha, T., Farrell, M., & Meltzer, H. (2003). The influence of age and sex on the prevalence of depressive conditions: report from the National Survey of Psychiatric Morbidity. *International Review of Psychiatry*, *15*, 74-83.
- Beck, A., Ward, C., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychology*, *4*, 561-571.

- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology, 42*, 155-162.
- Bem, S. L. (1977). On the utility of alternative procedures for assessing psychological androgyny. *Journal of Consulting and Clinical Psychology, 45*(2), 196-205.
- Bem, S. (1981). *Bem Sex-Role Inventory: Professional Manual*. Palo Alto, CA: Consulting Psychologists Press.
- Bern, S. L., & Lenney, E. (1976) Sex typing and the avoidance of cross-sex behavior. *Journal of Personality and Social Psychology, 33*, 48-54.
- Bem, S., & Lewis, S.A. (1975). Sex-role adaptability: One consequence of psychological androgyny, *Journal of Personality and Social Psychology, 31*, 634-643.
- Bern, S. L., Martyna, W., & Watson, C. (1976) Sex typing and androgyny: Further explorations of the expressive domain. *Journal of Personality and Social Psychology, 34*, 1016-1023.
- Bernardo, D. H., Shehan, C., & Leslie, G. R. (1987). A residue of tradition: Jobs, careers, and spouses' time in housework. *Journal of Marriage and the Family, 49*, 81-90.
- Bijl, R.V., Ravelli, A., & van Zessen, G. (1998). Prevalence of psychiatric disorder in the general population: results of the Netherlands Mental Health Survey and Incidence Study (NEMESIS) Social Psychiatry. *Psychiatric Epidemiological, 33*, 587-595
- Bird, C. E. (1999). Gender, household labor, and psychological distress: The impact of the amount and division of housework. *Journal of Health and Social Behavior, 40*(1), 32-45.

- Blankers, M., Koeter, M. W. J., & Schippers, G. M. (2010). Missing data approaches in eHealth research: Simulation study and a tutorial for nonmathematically inclined researchers. *Journal of Medical Internet Research, 12*(5), 51-61.
- Block, J. H. (1973). Conceptions of sex role: Some cross-cultural and longitudinal perspectives. *American Psychologist, 28*, 512-526.
- Boyd, J. H., Weissman, M. M., Thompson, W. D., & Myers, J. K. (1982). Screening for depression in a community sample: Understanding the discrepancies between depression syndrome and diagnostic scales. *Archives of General Psychiatry, 39*(10), 1195-1200.
- Breslau, N., Chilcoat, H. D., Peterson, E. L., & Schultz, L. R. (2000). Gender differences in major depression: The role of anxiety. In E. Frank (Ed.), *Gender and its effects on psychopathology; gender and its effects on psychopathology*. Arlington, VA: American Psychiatric Publishing, Inc.
- Bruce, S. E., Yonkers, K. A., Otto, M. W., Eisen, J. L., Weisberg, R. B., Pagano, M., . . . Keller, M. B. (2005). Influence of psychiatric comorbidity on recovery and recurrence in generalized anxiety disorder, social phobia, and panic disorder: A 12-year prospective study. *The American Journal of Psychiatry, 162*(6), 1179-1187
- Burchardt, C. J., & Serbin, L. A. (1982). Psychological androgyny and personality adjustment in college and psychiatric populations. *Sex Roles, 8*(8), 835-851.
- Campbell, M., Steffan, J., & Langmeyer, D. (1981). Psychological androgyny and social competence. *Psychological Reports, 48*, 611-614.

- Campbell-Sills, L., & Barlow, D.H. (2007). *Incorporating emotion regulation into conceptualizations and treatments of anxiety and mood disorders*. In: Gross, J.J. (Ed.), *Handbook of emotion regulation* (542-559). Guilford Press, New York.
- Cheng, C. (1999). Gender role differences in susceptibility to the influence of support availability on depression, *Journal of Personality*, 67, 439-467.
- Cheng, C. (2005). Processes underlying gender-role flexibility: Do androgynous individuals know more or know how to cope? *Journal of Personality*, 73, 645-673.
- Conway, K. P., Compton, W., Stinson, F. S., & Grant, B. F. (2006). Lifetime comorbidity of SDM-IV mood and anxiety disorders and specific drug use disorders: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of Clinical Psychiatry*, 67, 247-257.
- Cook, E. (1985). *Psychological androgyny*. New York: Pergamon.
- D'Augelli, A. R., & Grossman, A. H. (2001). of sexual orientation, victimization, and mental health among lesbian, gay, and bisexual older adults. *Journal of Interpersonal Violence*, 16, 1008–1027.
- D'Augelli, A. R., & Hershberger, S. L. (1993). Lesbian, gay, and bisexual youth in community settings: Personal challenges and mental health problems. *American Journal of Community Psychology*, 21, 421-448. Disclosure
- Daley, S. E., & Hammen, C. (2002). Depressive symptoms and close relationships during the transition to adulthood: Perspectives from dysphoric women, their best friends, and their

- romantic partners. *Journal of Consulting and Clinical Psychology*, 70, 129-141.
- Denmark, F. L., & Paludi, M. A. (Eds.). (1993). *Psychology of women: A handbook of issues and theories*. Westport, CT: Greenwood Press/Greenwood Publishing Group, Inc.
- Entwisle, D., & Doeringer, S. (1981). *The first birth: A family turning point*. Baltimore, MD: Johns Hopkins University Press.
- Freeman, A. C. (2005). Eating disorders in males: A review. *South African Psychiatry Review*, 8(2), 58-64.
- Flaherty, J., & Dusek, J. (1980). An investigation of the relationship between psychological androgyny and components of self-concept. *Journal of Personality and Social Psychology*, 38(6), 984-992.
- Formanek, R., & Gurian, A. (Eds.). (1987). *Women and depression: A lifespan perspective*. New York: Springer Publishing Co.
- Forsyth, J. P., Parker, J. D., & Finlay, C. G. (2003). Anxiety sensitivity, controllability and experiential avoidance and their relation to drug of choice and addiction severity in a residential sample of substance-abusing veterans. *Addictive Behaviors*, 28, 851-870.
- Geisler, F. C. M., & Schröder-Abé, M. (2015). Is emotion suppression beneficial or harmful? it depends on self-regulatory strength. *Motivation and Emotion*, 39(4), 553-562.
- Grant, B. F., Hasin, D. S., Stinson, F. S., Dawson, D. A., Chou, S. P., Ruan, W. J., & Pickering, R. P. (2004). Prevalence, correlates, and disability of personality disorders in the united

- states: Results from the national epidemiologic survey on alcohol and related conditions. *The Journal of Clinical Psychiatry*, 65(7), 948-958.
- Grant, B. F., & Harford, T. C. (1995). Comorbidity between DSM-IV alcohol use disorders and major depression: Results of a national survey. *Drug Alcohol Dependency*, 39, 197-206.
- Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the Difficulties in Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment*, 26(1), 41-54.
- Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, 2, 271-299.
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85, 348-362.
- Green, B., & Kendrick, D. (1994) The attractiveness of gender type traits at different relationship levels: androgynous characteristics may be desirable after all. *Journal of Personality and Social Psychology*, 20, 244-253.
- Greenberg, P. E., Kessler, R. C., Birnbaum, H. G., Leong, S. A., Lowe, S. W., Berglund, P. A., & Corey-Lisle, P.K. (2003). The economic burden of depression in the United States: How did it change between 1990 and 2000? *Journal of Clinical Psychiatry*, 64, 1465-1475.

- Gelpi, B. C. (1974). The politics of androgyny. *Women's Studies, 2*, 151-160.
- Glick, P., & Fiske, S. T. (1999). The ambivalence toward men inventory: Differentiating hostile and benevolent beliefs about men. *Psychology of Women Quarterly, 23*(3), 519-536.
- Guasp, A. (2011). *Lesbian, gay and bisexual people in later life*. London: Stonewall.
- Guastello, D. D., & Guastello, J. (2003). Androgyny, gender role behavior, and emotional intelligence among college students and their parents. *Sex Roles, 49*, 663-673.
- Gunter, N. C., & Gunter, G. (1990). Domestic division of labor among working couples: Does androgyny make a difference? *Psychology of Women Quarterly, 14*, 355-370.
- Haga, S. M., Kraft, P., & Corby, E. (2009). Emotion regulation: Antecedents and well-being outcomes of cognitive reappraisal and expressive suppression in cross-cultural samples. *Journal of Happiness Studies, 10*, 271-291.
- Harris, D. A. (1974). Androgyny: The sexist myth in disguise. *Women's Studies, 2*, 171-184.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). *Acceptance and commitment therapy: An experiential approach to behavioral change*. New York, NY: Guilford Press.
- Hayes, S. C., Strosahl, K., Wilson, K. G., Bissett, R. T., Pistorello, J., Toarmino, D., . . .
McCurry, S. M. (2004). Measuring experiential avoidance: A preliminary test of a working model. *The Psychological Record, 54*(4), 553-578.

- Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology, 64*, 1152–1168.
- Hefner, R., Rebecca, M., & Oleshansky, B. (1975). Development of sex role transcendence. *Human Development, 18*, 143-158.
- Heilbrun, A. (1976). Measurement of masculine and feminine sex role identities as independent dimensions. *Journal of Consulting and Clinical Psychology, 44*, 183-190.
- Heilbrun, A. (1981). Gender differences in the functional linkage between androgyny, social cognition, and competence. *Journal of Personality and Social Psychology, 41*, 1106–1118.
- Heilbrun, C. G. (1973). *Toward a recognition of androgyny*. New York: Knopf.
- Helmreich, R., Spence, J., & Wilhelm, J. (1981). A psychometric analysis of the Personal Attributes Questionnaire. *Sex Roles, 7*, 1097-1108.
- John, O. P., & Gross, J. (2004). Healthy and unhealthy emotion regulation: Personality processes, individual differences, and life span development. *Journal of Personality, 72*, 1301-1333.
- Jones, W. H., Chernovetz, M. E., & Hansson, R. O. (1978). The enigma of androgyny: Differential implications for males and females? *Journal of Consulting and Clinical Psychology, 46*, 298-313.

- Jonsson, P., & Carlsson, I. (2000). Androgyny and creativity: A study of the relationship between a balanced sex-role and creative functioning. *Scandinavian Journal of Psychology, 412*, 69-274.
- Just, N., & Alloy, B. (1997). The response styles theory of depression: Tests and an extension of the theory. *Journal of Abnormal Psychology, 106*, 221-229.
- Kaplan, A. G., & Bean, J. P. (1976). *Beyond sex-role stereotypes: Readings toward a psychology of androgyny*. Boston: Little, Brown.
- Keller, C., Lavish, L., & Brown, C. (2007). Creative styles and gender roles in undergraduate students. *Creativity Research Journal, 19*(2-3), 273-280.
- Kelly, J. & Worrell, J. (1977). New formulations for sex roles and androgyny: A critical review. *Journal of Clinical and Consulting Psychology, 45*, 1101-1115.
- Kessler, R. C., Chiu, W. T., Demler, O., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distribution of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*, 593-602.
- Kessler, R. C., Coccaro, E. F., Fava, M., Jaeger, S., Jin, R., & Walters, E. (2006). The prevalence and correlates of DSM-IV intermittent explosive disorder in the national comorbidity survey replication. *Archives of General Psychiatry, 63*(6), 669-678.
- Kessler, R. C., McGonagle, K. A., Swartz, M., Blazer, D. G., & Nelson, C. B. (1993). Sex and depression in the National Comorbidity Survey: I. Lifetime prevalence, chronicity and recurrence. *Journal of Affective Disorders, 29*, 85-96.

Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Hughes, M., Eshleman, S., . . .

Kendler, K. S. (1994). Lifetime and 12-month prevalence of DSM-III—R psychiatric disorders in the United States: Results from the national comorbidity study. *Archives of General Psychiatry, 51*(1), 8-19.

Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995) Posttraumatic stress disorder in the national comorbidity survey. *Archives of General Psychiatry, 52*, 1048–1060.

Kirchmeyer, C. (1996). Gender roles and decision-making in demographically diverse groups: A case for reviving androgyny. *Sex Roles, 34*, 649-663.

Klonoff, E. A., Landrine, H., & Campbell, R. (2000). Sexist discrimination may account for well-known gender differences in psychiatric symptoms. *Psychology of Women Quarterly, 24*, 93-99.

Knight, R. G., Williams, S., McGee, R., & Olaman, S. (1997). Psychometric properties of the centre for epidemiologic studies depression scale (CES-D) in a sample of women in middle life. *Behaviour Research and Therapy, 35*(4), 373-380.

Kohlberg, L. (1966). A cognitive-developmental analysis of children's sex-role concepts and attitudes. In E. E. Maccoby (Ed.), *The development of sex differences*. Stanford, CA: Stanford University Press.

Kopper, B., & Epperson, D. (1996). The experience and expression of anger: Relationships with gender, gender role socialization, depression, and mental health functioning. *Journal of*

Counseling Psychology, 43(2), 158-165.

Landrine, H. (1987). On the politics of madness: A preliminary analysis of the relationships between social roles and psychopathology. *Psychology Monographs*, 113, 341-406.

Lefkowitz, E. S., & Zeldow, B. (2006). Masculinity and femininity predict optimal mental health: A belated test of the androgyny hypothesis. *Journal of Personality Assessment*, 87, 95-101.

Leonard, W., Pitts, M., Mitchell, A, Lyons, A., Smith, A., Patel, S., ...Barrett. A. (2012). *Private Lives 2: The second national survey of the health and wellbeing of gay, lesbian, bisexual and transgender (GLBT)*. Melbourne, Australia: Australian Research Centre in Sex, Health and Society.

Levin, M. E., Lillis, J., Seeley, J., Hayes, S. C., Pistorello, J., & Biglan, A. (2012). Exploring the relationship between experiential avoidance, alcohol use disorders, and alcohol-related problems among first-year college students. *Journal of American College Health*, 60, 443-448.

Lubinski, D., Tellegen, A., & Butcher, J. (1981). The relationship between androgyny and subjective indicators of emotional well-being, *Journal of Personality and Social Psychology*, 40, 722-730.

Lundy, A., & Rosenberg, A. (1987). Androgyny, masculinity, and self-esteem. *Social Behavior and Personality*, 15, 91-95.

Markstrom-Adams, C. (1989). Androgyny and its relation to adolescent psychological well-

being: A review of the literature, *Sex Roles*, 21, 25-341.

Marx, B. P., & Sloan, D. M. (2005). Peritraumatic dissociation and experimental avoidance as predictors of posttraumatic stress symptomatology. *Behavioral Research Therapy*, 43, 569-583.

May, A., & Spangenberg, J. (1997). Androgyny and coping in men with a managerial orientation. *South African Journal of Psychology*, 27(4), 244-249.

McHale, S. M., Updegraff, K. A., Helms-Erikson, H., & Crouter, A. C. (2001). Sibling influences on gender development in middle childhood and early adolescence: A longitudinal study. *Developmental Psychology*, 37, 115-125.

Moffitt, T. E., Caspi, A., Rutter, M., & Silva, P.A. (2001). *Sex differences in antisocial behavior*. New York: Cambridge Univ. Press.

Murphy, E. M. (2003). Being born female is dangerous to your health. *American Psychologist*, 58, 205-210.

Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, 129(5), 674-697.

Nolen-Hoeksema, S. (1990). *Sex differences in depression*. Stanford, CA: Stanford University Press.

Nolen-Hoeksema, S. (1995). Gender differences in coping with depression across the lifespan.

Depression, 3, 81-90.

Nolen-Hoeksema, S. (2001). Gender differences in depression. *Current Directions in Psychological Science*, 10, 173-176.

Nolen-Hoeksema, S. (2004). Gender differences in risk factors and consequences for alcohol use and problems. *Clinical Psychology Review*, 24, 981-1010.

Nolen-Hoeksema, S., & Corte, C. (2004) Gender and self-regulation. In K. D. Vohs & R. F. Baumeister (Eds.), *Handbook of self-regulation: Research, theory and applications* (pp. 411-421). New York: Guilford Press.

Nolen-Hoeksema, S., & Girgus, J. S. (1994). The emergence of gender differences in depression during adolescence. *Psychological Bulletin*, 115, 424-443.

Nolen-Hoeksema, S., Wisco, B. E., & Lyubormirsky, S. (2008). Rethinking rumination. *Perspectives on Psychological Science*, 3, 400-424.

Norlander, T., Erixon, A., & Archer, T. (2000). Psychological androgyny and creativity: Dynamics of gender-role and personality trait. *Social Behavior and Personality*, 28(5), 423-435.

O'Heron, C., & Orlofsky, J. (1990). Stereotypic & non-stereotypic sex role trait & behaviour orientations, gender identity & psychological adjustment. *Journal of Personality and Social Psychology*, 58, 134-143.

Patten, S. B., Wang, J. L., Williams, J. V. A., Currie, S., Beck, C. A., Maxwell, C. J., & el-

- Guebaly, N. (2006). Descriptive epidemiology of major depression in Canada. *The Canadian Journal of Psychiatry / La Revue Canadienne De Psychiatrie*, 51(2), 84-90.
- Pearson, J. C., & Cooks, L. (1995). Gender and power. In P. J. Kalbfleisch, & M. J. Cody (Eds.), *Gender, power, and communication in human relationships; gender, power, and communication in human relationships* (pp. 331-349). Hillsdale, NJ.
- Pleck, J. H. (1975). Masculinity-femininity: Current and alternative paradigms. *Sex Roles*, 1, 161-178.
- Pleck, J. H. (1985). *Working wives/working husbands*. Beverly Hills, CA: Sage.
- Powell, G., & Butterfield, D. (1979). The good manager: Masculine or androgynous. *Academy Management Journal*, 22, 395-403.
- Powlishta, K. (1995). Gender bias in children's perceptions of personality traits. *Sex Roles*, 32, 17-28.
- Pryzgod, J., & Chrisler, J. C. (2000). Definitions of gender and sex: The subtleties of meaning. *Sex Roles*, 43(7), 553-569.
- Radloff, L. S. (1977). The CED-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385-401.
- Raskin, A., Schulterbrandt, J., Reatig, N., & McKeon, J. J. (1969). Replication of factors of psychopathology in interview, ward behavior and self-report ratings of hospitalized depressives. *Journal of Nervous and Mental Disease*, 148(1), 87-98.

- Redman, S., Webb, G. R., Henrikus, D. J., Gordon, J. J., & Sanson-Fisher, R. W. (1991). The effects of gender upon diagnosis of psychological disturbance. *Journal of Behavioral Medicine, 14*, 527-540.
- Regier, D. A., Narrow, W. E., & Rae, D. S. (1990). The epidemiology of anxiety disorders: The epidemiologic catchment area (ECA) experience. *Journal of Psychiatric Research, 24*, 3-14.
- Regier, D. A., Farmer, M. E., Rae, D. S., Myers, J. K., Kramer, M., Robins, L. N., . . . Locke, B. Z. (1993). One-month prevalence of mental disorders in the united states and sociodemographic characteristics: The epidemiologic catchment area program. *Acta Psychiatrica Scandinavica, 88*(1), 35-47.
- Remafedi, G., Farrow, J., & Deisher, R. (1991). Risk factors for attempted suicide in gay and bisexual youth. *Pediatrics, 87*, 869-875.
- Ricciardelli, R. & Williams, R. (1995) Desirable and undesirable gender traits in three behavioural domains. *Sex Roles, 33*, 637-656.
- Roberts, R. E., Vernon, S. W., & Rhoades, H. M. (1989). Effects of language and ethnic status on reliability and validity of the center for epidemiologic studies-depression scale with psychiatric patients. *Journal of Nervous and Mental Disease, 177*(10), 581-592.
- Roemer, L., Salters, K., Raffa, S. D., & Orsillo, S. M. (2005). Fear and avoidance of internal experiences in GAD: Preliminary tests of a conceptual model. *Cognitive Therapy and Research, 29*, 71-88.

Rogers, C. R. (1951) *Client-centered therapy*. Boston: Houghton Mifflin.

Rose, A. & Montemayor, R. (1994) The relationship between gender role orientation and perceived self-competency in male and female adolescents, *Sex Roles*, 31, 579-595.

Rosenfield, S. (1989). The effects of women's employment: Personal control and sex differences in mental health. *Journal of Health and Social Behavior*, 30, 33-42.

Russell, S. T. (2003). Sexual minority youth and suicide risk. *American Behavior Scientist*, 46, 1241-1257.

Sachs-Erickson, N., & Ciarlo, J. A. (2000). Gender, social roles, and mental health: An epidemiological perspective. *Sex Roles*, 43, 605-628.

Saragovi, C., Koestner, R., Di Dio, L., & Aubé, J. (1997). Agency, communion, and well-being: Extending Helgeson's (1994) model. *Journal of Personality and Social Psychology*, 73, 593-609.

Sawrie, S., Watson, P. & Biderman, M. (1991) Aggression, sex role measures and Kohut's psychology of the self. *Sex Roles*, 25, 41-161.

Scheffer, J. (2002). Dealing with missing data. *Research Letters in the Information and Mathematical Sciences*, 3, 153-60.

Schullo, S. A., & Alperson, L. (1984). Interpersonal phenomenology as a function of sexual orientation, sex, sentiment, and trait categories in long-term dyadic relationships. *Journal of Personality and Social Psychology*, 47, 983-1002.

- Secor, C. (1974) Androgyny: An early reappraisal. *Women's Studies*, 2, 161-169.
- Seeman, M. V. (1997). Psychopathology in women and men: Focus on female hormones. *American Journal of Psychiatry*, 154, 1641-1647.
- Shaver, P., Papilia, D., Clark, C., Koski, L., Tidwell, M., & Nalbare, D. (1996). Androgyny and attachment security: Two related models of optimal personality. *Personality and Social Psychology Bulletin*, 22, 582–597.
- Sheldon, K. M., Richard, R. M., Rawsthorne, L. J., & Ilardi, B. (1997). Trait self and true self: Cross-role variation in the Big-Five Personality Traits and its relations with psychological authenticity and subjective well-being. *Journal of Personality and Social Psychology*, 73, 1380-1393.
- Shelton, B. A. (1992). *Women, Men and Time: Gender Differences in Paid Work, Housework, and Leisure*. New York: Greenwood Press.
- Shimonaka, Y., Nakazato, K., Kawaai, C., & Shinichi, S. (1997). Androgyny and successful adaptation across the life span among Japanese adults. *Journal of Genetic Psychology*, 158, 389–401.
- Simpson, P. A., & Stroh, K. (2004). Gender differences: Emotional expression and feelings of personal inauthenticity. *Journal of Applied Psychology*, 89, 715-721.
- Skoe, E. (1995). Sex role orientation and its relationship to the development of identity and moral thought, *Scandinavian Journal Psychology*, 36, 235-245.

- Spence, J., & Buckner, C. (2000) Instrumental and expressive traits, trait stereotypes, and sexist attitudes: What do they signify? *Psychology Women Quarterly*, 24, 44-62.
- Spence, J. T., & Helmreich, R. L. (1978). *Masculinity and femininity: Their psychological dimensions, correlates, and antecedents*. Austin: University of Texas Press,
- Spence, J., Helmreich, R., & Holahan, C. (1979). Negative and positive components of psychological masculinity and femininity and their relationship to self-reports of neurotic and acting out behaviors. *Journal of Personality and Social Psychology*, 37, 1673–1682.
- Spence, J. T., Helmreich, R., & Stapp, J. (1975). Ratings of self and peers on sex role attributes and their relation to self-esteem and conceptions of masculinity and femininity. *Journal of Personality and Social Psychology*, 32, 29-39.
- Stake, J. E. (1997). Integrating expressiveness and instrumentality in real-life settings: A new perspective on the benefits of androgyny. *Sex Roles*, 37, 541-564.
- Stimpson, C. R. (1974). The androgyne and the homosexual. *Women's Studies*, 2, 237-248.
- Swartz, M. S., Blazer, D., George, L., & Winfield, I. (1990): Estimating the prevalence of borderline personality disorder in the community *Journal of Personality Disorders*, 4, 257–272.
- Terman, L. M., & Miles, C. C. (1936). *Sex and personality: Studies in masculinity and femininity*. New York: McGraw-Hill.
- Torgersen, S., Kringlen, E., & Cramer, V. (2001). The prevalence of personality disorders in a

- community sample. *Archives of General Psychiatry*, 58, 590–596.
- Trull, T. J., Jahng, S., Tomko, R. L., Wood, P. K., & Sher, K. J. (2010). Revised NESARC personality disorder diagnoses: Gender, prevalence, and comorbidity with substance dependence disorders. *Journal of Personality Disorders*, 24(4), 412-426
- Unger, R. K.. (1979). Toward a redefinition of sex and gender. *American Psychologist*, 34, 1085-1094.
- Walkup, H., & Abbott, R. D. (1978). Cross-validation of item selection on the Bem Sex-Role Inventory. *Applied Psychological Measurement*, 2, 63-71
- Webb, T. E., & VanDever, C. A. (1985). Sex differences in the expression of depression: A developmental interaction effect. *Sex Roles*, 12, 91-95.
- Weiss, R. S. (1990). *Staying the course: The emotional and social lives of men who do well and work*. New York: Free Press.
- Weissman, M. M., Bland, R. C., Canino, G. J., Faravelli, C., Greenwald, S., Hwu, H. G., ... Yeh, E.K. (1996). Cross-national epidemiology of major depression and bipolar disorder. *Journal of the American Medical Association*, 276, 293–299.
- Whiteford, H. A., Degenhardt, L., Rehm, J., Baxter, A. J., Ferrari, A. J., Erskine, H. E.,... Vos, T. (2013). Global burden of disease attributable to mental and substance use disorders: Findings from the Global Burden of Disease Study 2010. *Lancet*, 382, 1575-86.
- Whitley, B. (1983). Sex role orientation and self-esteem: A critical meta-analytic review. *Journal*

of Personality and Social Psychology, 44, 765–778.

Widiger, T. A., & Trull, T. (1993). Borderline and narcissistic personality disorders. In P. Sutker and H. Adams (Eds.), *Comprehensive textbook of psychopathology*. New York: Plenum.

Wilson, F. R., & Cook, E. P. (1984). Concurrent validity of four androgyny instruments. *Sex Roles, 11, 813-837.*

Woodhill, B. M., & Samuels, A. (2003). Positive and negative androgyny and their relationship with psychological health and well-being. *Sex Roles, 48, 555-565.*

Woodhill, B. M., & Samuels, A. (2004). Desirable and undesirable androgyny: A prescription for the twenty-first century. *Journal of Gender Studies, 13, 15-28.*

Younger, B. L. (2002). *A study of women and the relationships among self-esteem, self-efficacy, androgyny, and transformational leadership behavior*. (Dissertation). Retrieved from University of Memphis' Electronic Thesis and Dissertation (ETD) Repository.

Zich, J. M., Attkisson, C. C., & Greenfield, T. K. (1990). Screening for depression in primary care clinics: The CES-D and the BDI. *International Journal of Psychiatry in Medicine, 20(3), 259-277.*

Zung, W. W. (1965). A self-rating depression scale. *Archives of General Psychiatry, 12(1), 63-70.*

APPENDICES

Appendix A: Consent Form

About this study:

I am a Master's Student at Eastern Michigan, and I am conducting an internet based research study to see if men and women differ in the ways in which they experience anxiety and depression, and in the manner in which they regulate their emotions. I plan to collect and analyze data from approximately 400 students for this project who have filled out a series of anonymous online questionnaires.

This research protocol and informed consent document has been reviewed and approved by the Eastern Michigan University Human Subjects Review Committee for use from 6-4-2010 to 6-4-2011. If you have questions about the approval process, please contact Dr. Deb de Laski-Smith (734.487.0042, Interim Dean of the Graduate School and Administrative Co-chair of UHSRC, human.subjects@emich.edu).

Participation:

Your decision whether or not you wish to participate is completely voluntary. If you choose to participate, you are free to withdraw participation at any time without penalty or loss of benefits.

If you choose to participate in this study, you will be asked to complete a series of online questionnaires. This should take approximately one hour. I ask that you complete these questionnaires as thoroughly and honestly as possible. All information obtained from this survey will be treated with strict confidentiality—your name or other identifying information will not be directly connected to any of your responses, and your individual responses will not be shared with anyone. Any publications or presentations based on this research will not disclose any identifying information about any individual participants. You must be at least 18 years old to participate.

Risks & Benefits:

You will be exposed to very minimal risk by participating in this study, though some individuals may become uncomfortable answering certain questions (i.e., questions about drug and alcohol use or body image). If, at any time, you become upset or uncomfortable, you are free to withdraw your participation from the study with no penalty. In the unlikely event that distressing personal concerns arise for you during or after your participation in this study, EMU students are eligible for free counseling services at

313 Snow Health Center, Eastern Michigan University, Ypsilanti, Michigan 48197
(Telephone: 734.487.1118; Email: Counseling.Services@emich.edu).

While there are no direct benefits from participating in this study, your responses may help to benefit society at large by furthering our understanding of how men and women regulate their emotions, and how they experience anxiety and depression.

Course Requirements & Extra Credit:

Some instructors allow their students to participate in research in partial fulfillment of their course requirements, or allow students to participate in research for extra credit. However, the experimenter has no control over how instructors choose assign course credit or extra credit, if any is offered at all, in exchange for student participation. If your instructor allows you to earn course credit or extra credit for participating in research, you will be asked to provide your name, the name of your instructor, the name of the course, and the course number/section. This information will then be forwarded to your instructor via e-mail to inform him or her that you have participated in the study. Again, all of your responses will be kept confidential—the only information your instructor will receive is confirmation that you have participated in the study. In addition, we will provide you with a credit form indicating your participation in this research study via email. This e-mail will also only indicate that you have participated in a research project and will disclose nothing about your individual responses to any of the questions.

Contact Information:

The primary investigator for this study is Tara Baluck, BA. If you have any questions concerning the study, she can be contacted at [contact information redacted prior to publication]. Her faculty mentor is Stephen D. Jefferson, Ph.D. He can be reached at [contact information redacted] If you have any questions concerning this study or wish to learn more about its findings, please feel free to contact the principle investigator. We expect to complete this project by August 2011. Thank you for your time, should you choose to participate, and have a wonderful semester!

Appendix B: Demographic Information

What is your sex?

Male

Female

What is your race/ethnicity? (check all that apply)

African American/Black

Asian/Pacific Islander

Native American/American Indian

Arab American

White/European American

Other (please specify)

Are you a US citizen?

Yes

No

If no, what is your nationality?

How long have you resided in the United States?

What is your sexual orientation (or closest approximation)?

Heterosexual

Gay/Lesbian

Bisexual

Please enter your age:**What is your current class standing?**

Freshman

Sophomore

Junior

Senior

Please select from the following the people/persons who raised you/ were your primary caregiver(s) in childhood (choose all that apply):

Mother

Father

Stepmother

Stepfather

Aunt

Uncle

Grandmother

Grandfather

Older sister
Older brother
Other(s) (please specify):

How would you describe the community in which you were raised?

Rural
Urban
Suburban

Please rate your how religious or spiritual you consider yourself:

Not at All
Slightly
Moderately
Highly
Very Highly

Which, if any, religion do you practice?

How strongly do you identify as masculine?

Not at all
Slightly identify
Moderately identify
Strongly identify
Very strongly identify

How strongly do you identify as feminine?

Not at all
Slightly identify
Moderately identify
Strongly identify
Very strongly identify

Please indicate how politically conservative/liberal you would consider yourself.

Conservative: Not at all/Slightly/Moderately/Strongly/ Very Strongly
Liberal: Not at all/Slightly/Moderately/Strongly/ Very Strongly

Appendix C: Extended Personality Attributes Questionnaire

**The Extended Personality Attributes Questionnaire; (EPAQ; Spence et al., 1979)
Modified with the Interpersonal Perception Method (Schullo & Alperson, 1984)**

Instructions: The items below inquire about what kind of person you think you are. Each item consists of a PAIR of characteristics, with the letters 1-5 in between. For example:

Not at all artistic 1.....2.....3.....4.....5 Very artistic

Each pair describes contradictory characteristics. That is, you cannot be both at the same time, such as very artistic and not at all artistic.

You are to choose where YOU fall on the scale for each of the following items. For example, if you think that you have no artistic ability, you would choose 1. If you think that you are pretty good, you might choose 4. If you are only medium, you might choose 3, and so forth.

1.	Very arrogant*	1.....2.....3.....4.....5	Not at all arrogant
2.	Not at all independent	1.....2.....3.....4.....5	Very independent*
3.	Not at all emotional	1.....2.....3.....4.....5	Very emotional*
4.	Very whiny*	1.....2.....3.....4.....5	Not at all whiny
5.	Very boastful*	1.....2.....3.....4.....5	Not at all boastful
6.	Very passive	1.....2.....3.....4.....5	Very active*
7.	Not at all able to devote self completely to others	1.....2.....3.....4.....5	Able to devote self completely to others*
8.	Very rough	1.....2.....3.....4.....5	Very gentle*
9.	Not at all helpful to others	1.....2.....3.....4.....5	Very helpful to others*
10.	Not at all competitive	1.....2.....3.....4.....5	Very competitive*
11.	Not at all complaining	1.....2.....3.....4.....5	Very Complaining*
12.	Not at all kind	1.....2.....3.....4.....5	Very kind*
13.	Not at all egotistical	1.....2.....3.....4.....5	Very egotistical*
14.	Nags a lot*	1.....2.....3.....4.....5	Very rarely nags
15.	Not at all aware of feelings of others	1.....2.....3.....4.....5	Very aware of feelings of others*
16.	Can make decisions easily*	1.....2.....3.....4.....5	Has difficulty making decisions
17.	Gives up very easily	1.....2.....3.....4.....5	Never gives up easily*
18.	Very greedy*	1.....2.....3.....4.....5	Not at all greedy
19.	Not at all self-confident	1.....2.....3.....4.....5	Very self-confident*
20.	Feels very inferior	1.....2.....3.....4.....5	Feels very superior*
21.	Not at all understanding of others	1.....2.....3.....4.....5	Very understanding of others*
22.	Very cold in relations with others	1.....2.....3.....4.....5	Very warm in relations with others*

23.	Not at all fussy	1.....2.....3.....4.....5	Very fussy*
24.	Goes to pieces under pressure	1.....2.....3.....4.....5	Stands up well under pressure *
25.	Not at all dictatorial	1.....2.....3.....4.....5	Very dictatorial *
26.	Looks out only for self*	1.....2.....3.....4.....5	Doesn't look out only for self
27.	Very spineless*	1.....2.....3.....4.....5	Not at all spineless
28.	Subordinates self to others*	1.....2.....3.....4.....5	Does not subordinate self to others
29.	Not at all servile	1.....2.....3.....4.....5	Very servile*
30.	Not at all cynical	1.....2.....3.....4.....5	Very cynical
31.	Not at all gullible	1.....2.....3.....4.....5	Very gullible*
32.	Very hostile*	1.....2.....3.....4.....5	Not at all hostile

Note: Items with an asterisk indicate the extreme response for the scale. M+ items = 2, 6, 10, 16, 17, 19, 20, 24; M- items = 1, 5, 13, 18, 25, 26, 30, 32; F+ items = 3, 7, 8, 9, 15, 21, 22; F- items = 4, 11, 14, 23, 27, 28, 29, 31.

Appendix D: Center for Epidemiologic Studies Depression Scale

Center for Epidemiologic Studies Depression Scale (CES-D), NIMH

Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the **past week**. Circle **one** number on each line.

	During the Past Week			
	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	All of the time (5-7 days)
1. I was bothered by things that usually don't bother me	0	1	2	3
2. I did not feel like eating; my appetite was poor	0	1	2	3
3. I felt that I could not shake off the blues even with help from my family or friends	0	1	2	3
4. I felt I was just as good as other people	0	1	2	3
5. I had trouble keeping my mind on what I was doing	0	1	2	3
6. I felt depressed	0	1	2	3
7. I felt that everything I did was an effort	0	1	2	3
8. I felt hopeful about the future	0	1	2	3
9. I thought my life had been a failure	0	1	2	3
10. I felt fearful	0	1	2	3
11. My sleep was restless	0	1	2	3
12. I was happy	0	1	2	3
13. I talked less than usual	0	1	2	3
14. I felt lonely	0	1	2	3
15. People were unfriendly	0	1	2	3
16. I enjoyed life	0	1	2	3
17. I had crying spells	0	1	2	3
18. I felt sad	0	1	2	3
19. I felt that people dislike me	0	1	2	3
20. I could not get "going"	0	1	2	3