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Ambivalent Sexism and Traditional Gender Roles as
Predictors of Performance Evaluation Bias

Caleb B. Bragg

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Master of Science

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ABSTRACT

Ambivalent Sexism and Traditional Gender Roles as Predictors of Performance Evaluation Bias

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The object of the present research was to examine the relationship between ambivalent sexism, adherence to traditional gender roles, gendered job types, performance evaluations and promotion decisions. There were 124 participants recruited from undergraduate psychology courses, randomly assigned to one of four scenarios. Participants took the Ambivalent Sexism Inventory (ASI), Ambivalence towards Men Inventory (AMI), and Sex Role Egalitarianism Scale (SRES), read a scenario, and then evaluated the leader in the scenario using the Leadership Effectiveness Appraisal of Performance (LEAP). A 2x2x2 MANOVA found significant main effects for participant gender on the ASI and SRES, but no main or interaction effects were found for the other measures. Steiger's Z-test for "correlated correlations" in a sample did not find a significant relationship between the correlations in the different scenarios.

Keywords: gender roles, performance evaluation, ambivalent sexism

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Ambivalent Sexism and Traditional Gender Roles as Predictors of Performance Evaluation Bias

On average, women in the United States aged 16 and older made \$0.79 for every dollar made by their male counterparts in 2008. Those that had obtained a Bachelor's degree or higher made only \$0.74 for every dollar when compared to men (U.S. Bureau of Labor Statistics, 2008). This disparity persists despite attempts of both legal interventions and cultural paradigm shifts to eliminate it.

The pay inequality between men and women is likely related to the lack of women in top management and leadership positions in the United States. People in higher leadership roles tend to make more money and have more power than do their subordinates. Although women have been successful at entering the middle management ranks of many U.S. businesses, they continue to lag behind men in their appointment to senior management and executive employment positions. The *Fortune Magazine* (2010) website reports that currently only 3% of CEOs of Fortune 500 companies are women. Less than 8% of the top earners and 14% of the holders of the highest occupational titles in Fortune 500 companies are women (Furst & Reeves, 2008). Although their presence in the management ranks is increasing, women continue to be underrepresented in senior management at many large private-sector companies (Lyness & Heilman, 2006; Lynes, 2002; Powell 1999) as well as in the military (Looney, Robinson Kurpius, & Lucart, 2004).

One could make the argument that women are not holding top executive and leadership positions because they simply cannot succeed at the higher, more competitive levels, and that they are incapable of developing the necessary skills and traits to be effective leaders at those high levels. However, the women who currently hold top leadership positions show that these

jobs can and are being performed successfully by women. The successful women that are holding top executive and leadership positions disprove the argument that a woman cannot succeed at the top simply because she is a woman.

Another potential argument is that there are simply less women in the workforce than men, so having fewer women holding the top spots is demographically representative. In actuality women made up 46.5 % of the labor force in the U.S. in 2008. The largest percent of employed women (39%) worked in management, professional and related occupations (U.S. Bureau of Labor Statistics, 2008). The increasing number of women in lower level management and leadership positions suggests that there exists a discrepancy between the proportion of women in the workforce as compared to men and the proportion of women that have made it into the top executive positions. Logically this discrepancy suggests that there could be something impeding the progress of women into upper-level management.

Generally speaking the way to become a top earner or leader is to be promoted through an organization. Those who are promoted gain experience and are often greeted with new and diverse challenges and opportunities to grow and progress. The decision of promotion to leadership positions is most commonly based on an individual's performance appraisal (Chernesky, 2003, Lyness & Heilman, 2006). Therefore it is imperative to examine whether any biases or sexism exist in the performance appraisal process for women seeking advancement in order to detect potential impediments for promotion.

Previous research has investigated the effects of leadership style, gender roles, and types of job to detect prejudice against female leaders' job performance (Eagly, Johannesen-Schmidt & van Engen, 2003; Garcia-Retamero & Lopez-Zafra, 2006). For instance, before the year 1990, when most of the information on 'male' and 'female' leadership styles was derived, the

predominant leadership theory distinguished between two major leadership styles; *task-oriented* and *interpersonally oriented* leadership (Eagly et al. 2003). According to the task oriented style, leadership was concerned with "accomplishing assigned tasks by organizing task-relevant activities", and interpersonally oriented was concerned with "maintaining interpersonal relationships by tending to others' morale and welfare" (Eagly et al. 2003, p. 570). During this same time period of task oriented versus interpersonally oriented leadership styles a smaller number of studies focused on leaders who behaved in a democratic way (that is they allowed others, including subordinates, to take part in the group decision making process) as well as leaders that took a more autocratic approach (those that mostly told others what to do). A meta-analysis conducted by Eagly and Johnson (1990) looked at 162 studies that were conducted between 1961-1987, comparing men and women on task-oriented vs. interpersonally-oriented leadership styles. Eagly and Johnson found that in laboratory settings women and men acted in a stereotypical fashion (i.e., the women were more interpersonally oriented and democratic, the men more task oriented and autocratic). In actual organizational studies, however, men and women managers tended to engage in both interpersonally oriented and task oriented leadership styles (Eagly & Johnson, 1990).

A subsequent meta-analysis replicated these results while analyzing similar studies conducted between 1987-2000 (van Engen, 2001). So, in the real world, women seemed to demonstrate traditionally masculine traits (such as being agentic, adaptable, competent, instrumental, a risk taker, and competitive), traits that have been associated with effective leaders (Sczensy, Bosak, Neff, & Schyns, 2004). Previous studies point out that although such leadership characteristics may be seen as masculine this does not imply that only men are able to cultivate these "masculine" traits. Therefore, it is reasonable to assume that leadership is

something that can be taught and learned regardless of the gender of an individual, and is not exclusive to either gender.

Not only can women develop the "masculine" leadership traits, but they also have demonstrated that as leaders women tend to show "feminine" leadership traits, such as being less hierarchical, more cooperative and collaborative, and more oriented to enhancing the self worth of others (Eagly & Johnson, 1990). The adaptation of these feminine leadership traits suggests that women leaders may be superior to their male counterparts as leaders for many contemporary organizations, where cooperation and teamwork is usually emphasized more than competition between team members, as research has suggested that cooperation on a task yields better results than competition (Qin, Johnson, & Johnson, 1995).

Previous studies mostly focus on the effects of gender, leadership style, and job types on leadership evaluation. However, to date, there has been little research done to correlate the evaluator's personal characteristics (such as adherence to traditional gender roles and level of ambivalent sexism) to predict biases on female leaders' work evaluation. Therefore, the purpose of the proposed study is to examine the roles of gender-role traditionality, ambivalent sexism, and masculine versus feminine job types on leadership effectiveness evaluations and promotion recommendations, particularly for female leaders.

The Gender of the Leader and Performance Evaluation Bias

Despite the research suggesting women can be effective leaders, there still exists an impediment for them in entering the higher, more important and profitable areas of leadership and management. A large number of research studies have demonstrated some evidence of unequal treatment of women. One of the most well-recognized evidences of unequal treatment is the "glass ceiling effect", "a barrier so subtle that it is transparent, yet so strong that it prevents

women . . . from moving up in the management hierarchy" (Morrison & Von Glinow 1990, p. 200). Critics of the glass ceiling effect have said that after women entered into traditionally male professional and managerial jobs some 30 years ago that it would just take time for women to climb up through the "pipeline" to higher organizational levels of leadership. The fact that there are still so few women at the top levels of organizational leadership after 30 years implies that there are factors besides time that are impeding the advancement of women to the top (Gorman & Kmec, 2009).

Another main point of debate about the glass ceiling effect is whether women's upward mobility prospects decline as they climb organizational hierarchies, known in the literature as the increasing-disadvantage model (Baxter & Wright, 2000; Gorman & Kmec 2009). This model says that as a woman gets to higher leadership positions, it becomes increasingly harder for her to be promoted to the next level. Gorman and Kmec found that this was indeed the case, that "the female mobility disadvantage is greater at higher organizational levels in the case of internal promotions" (2009, p. 1428). The glass ceiling barrier remains and as a consequence women continue to receive less organizational rewards when compared to their male counterparts. These organizational rewards include such things as pay, training opportunities, and promotion (Chernesky, 2003; Furst and Reeves, 2008; Scenzy et. al 2004).

In addition to the glass ceiling effect, studies have found that there is a pro male bias in performance evaluations, especially if the performance evaluation includes a promotion decision. In fact, a longitudinal study using survival analysis was conducted by Kramer and Lambert (2001) on a large sample of workers ($n = 898$), both male and female from a variety of companies and industries. The result of their study was that their "findings support the existence of significant pro-male bias in promotion decisions unattributable to differences in time on the

job, education, or parenting responsibilities"(Kramer & Lambert, 2001, p. 123-124) In a more recent study, Kosteas (2010) found that "differences in employment history cannot explain the discrepancy between the rates of supervisor status between men and women" (p. 116).

Steinpreis, Anders, and Ritzke (1999) looked specifically at only performance evolutions and gender. In the study, they made two identical copies of a curriculum vitae from a real life scientist from the beginning of her career. The name of the scientist was changed to a traditional male name in one version, and a traditional female version in the other. Steinpreis et al. found that "both men and women were more likely to vote to hire the male candidate . . . that the male candidate had done more adequate teaching, research . . . when compared to the female job applicant with an identical record" (Steinpreis et al. 1999, p. 522-523). Based on the evidence of bias in performance evaluation and promotion presented above, it was hypothesized that a woman's performance appraisal will be more negatively evaluated than that of a male counterpart.

Effect of Gendered Job Types, Gender of Leaders and Gender Role Congruence

The lack of women as top leaders does not extend to all industries. In fact, there are areas that seem to be dominated by women, and allow for easy access into these jobs. These roles that are considered "suitable" for the feminine stereotype are those that include caring or giving support, or that put emphasis on human interactions (Eagly, 1987; Eagly, Wood, & Diekmann, 2000; Garcia-Retamero, 2006; Lopez-Saez, 1994; Lopez-Zafra, 1999). Job types that fall in these areas (i.e., nursing, secretary, elementary education) seem to have the greatest number of women both working in the field, and have the greatest number of women as leaders in those fields. In contrast, men have traditionally been concentrated in roles that emphasize power, competition, and/or authority (Garcia-Retamero & Lopez-Zafra, 2006). This concentration of

men in these areas of power have led to the cultural assumption that leadership is congruent with the male gender-role, and is therefore incongruent with the feminine gender role, especially in those areas of employment that are traditionally male dominated (van Engen, van der Leeden & Willemsen, 2001). However, to date, there has not been much research done with the job types that are considered masculine or feminine. The previous research studies have defined masculine or feminine job types based on the number of men and women in those jobs. Therefore, it is crucial to investigate individual's perceptions of masculine/feminine job types within a given culture. Although a study conducted in Spain by Garcia-Retamero and Lopez-Zafra (2006) that required the selection of job types that were both masculine and feminine, the selection of masculine and feminine jobs was done by surveying a number of participants, both male and female, and asking which of 12 provided jobs they thought a man would be interested in pursuing, and which 12 they thought a woman would be interested in pursuing. The researchers then selected the job type for each gender that seemed to be the most interesting for that gender, and the least interesting to the opposite gender. Their investigation is noteworthy and leads to the question of what occupations ought to be used in the U.S. to examine gender role congruence. In the United States, Victoria Brescoll, Erica Dawson and Eric Uhlmann (2010) conducted a study looking at leader status and gender-stereotype incongruent occupations using the occupation of Police Chief as a masculine job and President of a Woman's College as a feminine job type. These occupations were selected by participants in a pretest to their study as "equivalent in both status and gender congruity (p. 1641). Therefore, these occupations will be used in the present study to represent a masculine job type and a feminine job type.

The idea of gendered job types and the study of cultural assumptions and their impact on the workforce led to the creation of many theories, one of the more popular of which was the

theory of Gender Role Congruence. Gender role congruence and incongruence is explained in Eagly and Karau's (2002) gender role congruity theory. Gender roles are defined as consensual beliefs about the attributes of women and men that are normative for each sex (Eagly, 1987). Role congruity theory has to do with how well of a fit there is between a given gender role and another role, in this case that of leadership. This incongruence may be a factor that negatively impacts a person conducting a woman's leadership evaluation.

According to the theory, leadership is seen as a masculine role, and because of this, it does not fit well with the feminine gender role. The evaluator could feel this as incongruence, and might rate the woman lower on her leadership evaluation based on the role incongruence, and not necessarily on the specific skills and abilities of the woman being evaluated. This negative evaluation can then turn from a potential stepping stone to a stumbling block as she applies for advancement throughout her career. Major consequences of this perceived lack of role congruity are that it is more difficult for women to become leaders, and to achieve success in leadership roles (Eagly & Karau, 2002; Ritter & Yoder, 2004). Women leaders are also often seen as less qualified than male leaders, especially if they worked in an incongruent industry (Garcia-Retamero & Lopez-Zafra, 2009). A woman working in a masculine job type could potentially have the general bias of performance evaluations against women that was explained earlier in the article, compounded with the fact that she is not working in a "gender appropriate" job type. This woman could be facing a double dose of bias against her. Therefore, it was hypothesized that women who are in the feminine job type would be evaluated more positively than those who are in the masculine job type. It was also hypothesized that men who are in the masculine job type would be more positively evaluated than those who are in the feminine job type.

Effect of Sex Role Egalitarianism

Sex role egalitarianism is defined as "an attitudinal variable that reflects the extent to which judgments about the behaviors and characteristics of males and females are not constrained by traditional or stereotypical standards"(Beere, King, Beere, & King, 1984, p. 565; King & King, 1990). According to this definition an egalitarian person is a person who is accepting of both women exhibiting traditional male role behaviors and men showing traditional female role behaviors. This is in contrast to a person that holds tightly to traditional gender roles that say ideal men should be tough and masculine while ideal women should be dependent, care giving, and passive (Hinkelmn & Granello, 2003). People that subscribe to traditional beliefs also believe that others should act in certain socially prescribed ways. This belief tends to result in lower acceptance or appraisals of persons not acting in accordance with traditional social norms (Hamburger, Hogben, McGowen, & Dawson, 1996).

In contrast a person that exhibits high egalitarianism attitudes would not put much focus on whether a person holds to traditional gender roles, and his or her adherence to the traditional gender role of male and female would be very low. This person potentially would not be affected by the sex role congruency theory, as they do not allow strict adherence to traditional gender roles to influence their evaluation of other people. A qualified leadership evaluator that shows high sex role egalitarianism might well be in the position to evaluate women in a leadership role, even in a typically masculine industry, without gender bias caused by gender role incongruence. In fact, Chiavacci (2005) found that certain foreign affiliated companies that espoused gender egalitarian ideas offered better performance-based pay and career promotion opportunities to Japanese women than did Japanese firms that held more traditional gender role ideals and practices. This study suggests that people and organizations that are more egalitarian

in their views of gender roles seem to hold less bias for a person or persons acting outside of the traditional gender roles. Therefore, it was hypothesized that the individuals with high scores on the Sex-Role Egalitarianism Scale would not rate men or women differently for working in a gender traditional versus gender non-traditional job type.

Ambivalent Sexism and Performance Evaluation

Another construct that the present research is looking at is that of Ambivalent Sexism, which was introduced by Peter Glick and Susan Fiske in 1996. There are two parts to ambivalent sexism: hostile sexism and benevolent sexism. Hostile Sexism, or sexual antipathy, is defined as hostile attitudes towards women in general (i.e., all women are terrible drivers). Benevolent Sexism, on the other hand, is defined as subjectively positive views of women that are still used to paint women in an inferior light (i.e. all women need to be protected by a man). Hostile Sexism and Benevolent Sexism "tend to be positively correlated because they both justify traditional gender role[s]..." (Yamawaki, 2007, p. 408) . This type of sexism is especially insidious as it often disguises itself as a positive feeling toward women that appears favorable but is actually sexist because it portrays women as warm but incompetent or weak individuals who need to be protected and supported by men (Dardenne, Dumont & Bollier, 2007). The Ambivalent Sexism Inventory, the instrument developed by Glick and Fisk (1996) to measure Ambivalent Sexism, is not only a scale for men. Women can also hold ambivalent attitudes towards women as well (Kilianksi & Rudman, 1998). Belonging to one gender or the other does not preclude a person from holding sexist attitudes, although women have been rated as less ambivalently sexist than men in previous research studies (Glick and Fiske 1996; Glick et al. 2004; Silván-Ferrero and Bustillos López 2007).

Glick, Diebold, Bailey-Werner, and Zhu (1997) investigated some characteristics that people categorized as ambivalent sexists hold in comparison to those characterized as non-sexist. They found that the ambivalent sexists tended to spontaneously categorize women into subgroups that receive polarized evaluations. For example, although both ambivalent sexists and non-sexists saw a career woman as intelligent, hard working, and professional, ambivalent sexists attributed negative interpersonal characteristics, such as being aggressive, selfish, greedy, and cold to career woman more than non-sexists did. Furthermore, ambivalent sexists tended to fear, envy, feel competitive toward the career woman. In contrast, although both ambivalent sexists and non-sexists tended to see homemakers as caring, loving, and nurturing, sexists tend to show more positive emotions toward homemakers—warmth, respect, trust, and happiness. Therefore, the present study investigated the effect of ambivalent sexism on the evaluation of leadership effectiveness. Given that this study examined the perceived job performance of a career woman who is seeking promotion, it was hypothesized that ambivalent sexism would be significantly associated with the evaluation of a career woman's job performance. In particular, it was hypothesized that individuals who express more benevolent sexism would tend to rate a women working in a masculine job type more negatively than a women working in a feminine job type given that they tend to adhere more strictly to traditional gender role ideologies. It was also hypothesized that individuals who score highly on the Hostile Sexism would rate a female worker more negatively than a male worker due to the fact that hostile sexism promotes the idea that women are generally inferior to men.

The research presented here suggests that there could have been a bias against a woman attempting to advance in a role that is "incongruent" with the traditional gender role. The level of ambivalent sexism and adherence to traditional gender roles on the part of the evaluator could

have been key predictors in measuring the existence of bias in performance reviews, and a possible tool for the detection and elimination of these biases in the future.

Hypotheses

The following hypotheses were designed to test the effects of ambivalent sexism, gender role traditionality, participant gender, leader gender, and job type (masculine vs. feminine) on leadership effectiveness evaluations and likelihood of promotion.

Hypothesis 1. It was hypothesized that a female leader would be more negatively evaluated than her male counterpart.

Hypothesis 2. It was hypothesized that men and women leaders who work in congruent job types would be evaluated more positively than those who work in incongruent job types.

Hypothesis 3. Furthermore, it was hypothesized that female leaders who work in incongruent job types would be more negatively evaluated than male leaders work in incongruent job types.

Hypothesis 4. It was hypothesized that individuals with low scores on the Sex-Role Egalitarianism Scale would rate men or women leaders working in an incongruent role more negatively than those working in congruent roles.

Hypothesis 5. It was hypothesized that individuals who score highly on Benevolent Sexism would tend to rate men and women leaders working in an incongruent job type more negatively than men and women working in a congruent job type.

Hypothesis 6. It was hypothesized that individuals who score highly on the Hostile Sexism would rate women leaders more negatively than men.

Although not hypothesized, the study also examined the effects of the gender of the participant and gender of the leader on the Leadership Effectiveness Appraisal.

Method

Participants

Participants for this study were recruited through the BYU SONA system and through presentations in undergraduate psychology courses. Participants were compensated with nine SONA Credits for completing both portions of the study, which credits could be used at the discretion of the course instructor as either extra credit or to complete research participation requirements for the undergraduate course. Of the 147 participants that originally signed up to participate in the research, 23 failed to complete one or both parts of the study, rendering any partial data unusable to the research. Any participants who failed to complete both parts of the research study had an partial completion deleted from the database, and received no SONA credit, as was stated in the informed consent. The failure to complete both parts of the study left 124 completed responses to the research study. These participants were randomly assigned to the four conditions for the study using a table of random sequences of the numbers one through four, giving each of the four conditions 31 completed responses. Of the 124 participants that completed the research study, 56 were male and 68 were female. Their ages ranged from 18 to 50 years old, with an average age of 22 years old. Of all the participants surveyed, 32% reported being married or remarried and 68% being single or divorced. The self reported ethnographic information indicated that 86% of participants were White, 7% were Asian, 6% were Hispanic, and 1% was Native American or Pacific Islander.

Independent Measures

Ambivalent Sexism Inventory. The Ambivalent Sexism Inventory (ASI) was developed by Glick and Fiske (1996) in response to the need to reconcile the question of whether or not sexism is a form of prejudice. The ASI has 22 items on a 6-point Likert Scale, where 0 = disagree strongly and 5 = agree strongly. A typical item from the ASI would be "Most women

interpret innocent remarks or acts as being sexist" (Glick & Fiske, 1994, p. 512). The ASI may be used as an overall measure of sexism, or have either of the two subscales, Hostile Sexism (HS) and Benevolent Sexism (BS), be used as measures of either Hostile or Benevolent Sexism, respectively. The higher the score a participant receives on the ASI or its subscales, the more sexist that person is considered to be. In the previous research studies conducted by Glick and Fiske (1996), the ASI had an average Cronbach's Alpha of 0.87 across six studies. The HS subscale had an average Cronbach's Alpha of 0.88 across six studies, while the BS subscale had an average Cronbach's Alpha of 0.79 across the same studies. In the present study, the ASI had a similarly high Cronbach's Alpha of 0.83. The HS subscale had a Cronbach's Alpha of 0.79, and the BS subscale had a Cronbach's Alpha of 0.81 in the present study.

Ambivalence towards Men Inventory. The Ambivalence towards Men Inventory (AMI) consists of 20 statements concerning thoughts and feelings about male gender role behaviors. The participant reports his or her agreement or disagreement with each statement on a Likert-type scale of 0 (*strongly disagree*) to 5 (*strongly agree*). The AMI was used as an overall measure of Ambivalence towards Men, or have either of the two subscales, Hostility towards Men (HM) and Benevolence towards Men (BM), be used as measures of either Hostile or Benevolent Attitudes towards Men, respectively. A high score on the AMI indicates more sexism towards men. The AMI had an average Cronbach's Alpha of 0.85 across three previous studies conducted by Glick and Fiske (1999); the Cronbach's alphas for the HM and BM subscales were 0.84 and 0.81, respectively. In the present study, the AMI had a Cronbach's Alpha of 0.88, the HM and BM subscales had Cronbach's Alpha scores of 0.78 and 0.81 respectively.

Sex-Role Egalitarianism Scale BB. The Sex-Role Egalitarianism Scale (SRES) was first developed by Beere et al. (1984) to measure the degree to which an individual subscribed to traditional gender roles. For the purpose of this study an abbreviated form was used that was shown to provide a psychometrically sound, more time efficient method of measuring the construct of Sex-Role Egalitarianism outlined previously in this study (King & King, 1994). The SRES abbreviated form BB contains 25 items on a 5-point Likert Scale, where 1= Strongly agree and 5= Strongly disagree. The abbreviated scale had an average internal consistency of 0.93 across two previous studies. A typical item from the scale would be "It is worse for a woman to get drunk than for a man "(King & King, 1994). In the present study, the SRES had a Cronbach's Alpha of 0.89.

Dependent Measures

Leadership Effectiveness Appraisal of Performance. A measure of leadership effectiveness based on one that was developed by Atwater, Ostroff, Yammarino, and Fleenor (1998), was referred to as the Leadership Effectiveness Appraisal of Performance (LEAP) for the purposes of this study. It contains 16 items that assesses how a potential leader would perform on a variety of elements as compared to his/her peers. The evaluator was asked to assign a value to each of the 16 items that was to be assessed on a 5-point Likert scale that asked the question: How effectively would this person handle each of the following? The values were anchored at 1 (among the worst) to 5 (among the best). The scores on the individual items were then averaged, and an overall score for leadership effectiveness was found. In previous studies, the items had a Cronbach's Alpha of 0.91. In the present study, the LEAP had a similar Cronbach's Alpha of 0.88.

One additional question was asked as a separate dependent measure and tested for internal consistency along with the items of the LEAP: "How likely would you be to promote this individual?"(Promote). This question was answered on a 6-point Likert Scale. The values were anchored at 0 (very unlikely) to 5 (very likely). When this additional item was included as part of the LEAP in the present study, the Cronbach's Alpha was 0.89.

Scenario

In order to measure the job type, participants were assigned to read one of four vignettes based off of the model vignettes used in the study conducted by Garcia-Retamero and Lopez-Zafara (2006). The vignettes are identical in every way except for the industry that the job is in (one a traditionally masculine job and one a traditionally feminine job). The name of the leader in the vignette was either a traditionally feminine name (i.e. Jennifer) or a traditionally male name (i.e. James), thereby creating the four groups; Male in a Masculine Job type (MMJ), Female in a Feminine Job type (FFJ), Female in a Masculine Job type (FMJ), and Male in a Feminine Job type (MFJ). The scenario was written as follows, with the words in parentheses being changed to the correct masculine or feminine form, depending on the group.

You are the regional manager in charge of (Calentine's Police Department or Wellesley's Women's College). Your responsibilities include the evaluation of personnel and recommendations for promotions. Please read the following scenario and evaluate the performance of the individual using the form on the next page.

James/Jennifer has been working at (Calentine's Police Department or Wellesley's Women's College) as a(n) (Deputy Police Chief or Academic Vice President) for the past five years. He/She has an advanced degree, is punctual, reliable, dependable, works extremely hard and gets his/her work done with relative consistency. James/Jennifer always seems to pick up

quickly on and solve unexpected challenges, usually takes risks to improve efficiency, and has an inner drive to succeed no matter what it takes to get the job done. He/She is also well liked by his/her co-workers, always very supportive of his/her co-workers, and is very concerned about making sure everyone succeeds, often coming in on his/her own time to help out anyone that is falling behind in their own work.

Recently the position of (Police Chief or University President) has come open. Please evaluate James/Jennifer and evaluate his/her promotion readiness.

Procedure

While recruiting in the undergraduate classes, the researcher instructed prospective participants to sign up on the SONA system for both part one and part two of the research study. Participants were instructed to sign up for time slots that were at least 24 hours apart so as to avoid priming the responses of the participants on the second portion of the study. The SONA system was set up to send an email to *thesis.cb@gmail.com* every time a new participant signed up for a specific time slot to participate in the research project. As the emails were received the participants were randomly assigned to one of the four vignette conditions described earlier using a random number sequence table. Participants were also given a Personal Response Code (PRC) that represented the condition that they were assigned to. An email was then sent to the participant with this PRC and a link to complete the first portion of the study, a battery of pre-tests that include demographic information, the ASI, the SRES, and the AMI. After the first part of the research study had been completed, the participants were instructed to come to the lab room to complete the second portion of the study. Upon their arrival, the researcher asked the participant whether he or she remembered or had brought with him or her the PRC that had been assigned. After receiving confirmation from the participant that he or she did have or remember

the correct PRC, the researcher instructed the participant to take a seat at any of the open computer stations and to click on the survey link that corresponded with the participant's PRC. This survey link brought the participant to the appropriate survey for the condition that the participant had been assigned to (i.e. FFJ, FMJ, MFJ, or MMJ) which included the correct version of the vignette for the participant to read as well as the LEAP and Promote. The participant was then asked to carefully read and follow the instructions in order to complete the second portion of the study, and to alert the researcher when he or she had finished, or if the participant encountered any problems or had any questions. After the completion of the LEAP, the participant was re-directed to a debriefing screen to thank him or her for participating in the research. On this screen the participant had the option of filling out their last name and first initial as well as the last name of the professor for whose class they would like their SONA credit awarded. SONA credit was awarded to all participants that completed both portions of the study. All personal identifiers were removed from the responses after complete participation was verified so as to maintain the confidential nature of the participant's responses to all parts of the research study.

Data Analysis

In order to examine Hypotheses 1, 2, and 3, a 2 (gender of leader) x 2 (masculine vs. feminine job type) x 2 (gender of participant) Multivariate Analysis of Variance was performed in order to compare the means of the LEAP as a dependent variable. Further, to examine Hypotheses 4, 5, and 6 a Steiger's Z-test for correlated correlation was run to examine the relationships of the bivariate correlations for participant scores on the SRES, the HS, the BS, and the LEAP between the four scenarios. Descriptive statistics were also run on the raw data, though no specific hypothesis was tested using these data.

Results

A 2 x 2 x 2 MANOVA was performed on the dependent variables where the independent variables were leader gender, participant gender, and job type, while the dependent variables were the scores on the ASI, AMI, SRES, LEAP, and Promote measures. Table 1 represents the sample size, means and standard deviations of LEAP scores and Promote scores respectively as a function of the scenario.

Table 1

Mean and Standard Deviation of scores for the LEAP and Promote as a function of scenario

LEAP				Promote			
Group	n=	Mean	SD	Group	n=	Mean	SD
FFJ	31	4.15	0.5	FFJ	31	4.65	0.49
FMJ	31	4.26	0.47	FMJ	31	4.71	0.46
MFJ	31	4.15	0.45	MFJ	31	4.45	0.62
MMJ	31	4.10	0.48	MMJ	31	4.48	0.72
Overall	124	4.17	0.47	Overall	124	4.57	0.59

Note. FFJ = Female leader in feminine job type; FMJ = Female leader in masculine job type; MFJ = Male leader in masculine job; MMJ = Male leader in masculine job type; LEAP = evaluation score given to leader in scenario by participant; Promote = How likely (0 to 5 likert scale) would participant be to recommend leader in scenario for promotion.

The results of MANOVA showed that there were no significant main effects of leader gender [Hypothesis 1; $F(5, 112) = 1.41, ns$] and job type [Hypothesis 2; $F(5, 112) = 0.25, ns$]. In another words, respondents did not see any differences on the leader of the gender nor job types when they evaluated the leaders' performance. Although not hypothesized, there was a significant main effect for participant gender, $F(5, 112) = 9.80, p < .01$. The follow-up ANOVA results showed that there were significant differences between male and female on scores for the ASI, $F(1, 116) = 28.11, p < .01$, and the SRES, $F(1, 116) = 18.38, p < .01$. There were no between subject effects found for participant gender on scores for the AMI, $F(1, 116) = 3.52, ns$, the LEAP, $F(1, 116) = 2.73, ns$, or Promote, $F(1, 116) = 0.00, ns$.

Table 2

Intercorrelations of participant gender, ASI, HS, BS, AMI, SRES, LEAP and Promote as a function of scenario.

FFJ Scenario Correlations

	1	2	3	4	5	6	7	8
1. Gender	1	-.76**	-.61**	-.73**	-.41*	.45*	.23	.04
2. ASI	-.76**	1	.88**	.88**	.66**	-.64**	-.30	.05
3. HS	-.61**	.88**	1	.55**	.47**	-.59**	-.36*	-.09
4. BS	-.73**	.88**	.55**	1	.70**	-.53**	-.18	.18
5. AMI	-.41*	.66**	.47**	.70**	1	-.45*	-.36*	-.12
6. SRES	.45*	-.64**	-.59**	-.53**	-.45*	1	.27	.06
7. LEAP	.23	-.30	-.36*	-.18	-.36*	.27	1	.51**
8. Promote	.04	.05	-.09	.18	-.12	.06	.51**	1

FMJ Scenario Correlations

	1	2	3	4	5	6	7	8
1. Gender	1	-.52**	-.38*	-.49**	-.06	.42*	.26	.18
2. ASI	-.52**	1	.84**	.85**	.72**	-.65**	-.16	-.11
3. HS	-.38*	.84**	1	.43*	.56**	-.55**	-.08	.01
4. BS	-.49**	.85**	.43*	1	.65**	-.55**	-.19	-.19
5. AMI	-.06	.72**	.56**	.65**	1	-.56**	-.05	-.05
6. SRES	.42*	-.65**	-.55**	-.55**	-.56**	1	.20	.18
7. LEAP	.26	-.17	-.08	-.19	-.05	.20	1	.69**
8. Promote	.18	-.11	.01	-.19	-.05	.18	.69**	1

Table 2 (continued)

MFJ Scenario Correlations

	1	2	3	4	5	6	7	8
1. Gender	1	-.14	.14	-.34	-.17	.13	.18	.03
2. ASI	-.14	1	.77**	.81**	.90**	-.50**	.06	-.22
3. HS	.144	.77**	1	.255	.69**	-.47**	-.10	-.25
4. BS	-.34	.81**	.26	1	.73**	-.33	.18	-.11
5. AMI	-.17	.90**	.69**	.73**	1	-.46**	.10	-.22
6. SRES	.13	-.50**	-.47**	-.33	-.46**	1	.04	.07
7. LEAP	.18	.06	-.10	.18	.10	.04	1	.63**
8. Promote	.03	-.22	-.25	-.11	-.22	.07	.63**	1

MMJ Scenario Correlations

	1	2	3	4	5	6	7	8
1. Gender	1	-.34	-.22	-.37*	-.08	.46**	-.07	-.16
2. ASI	-.34	1	.88**	.78**	.75**	-.69**	.11	.14
3. HS	-.22	.88**	1	.38*	.57**	-.62**	.07	.02
4. BS	-.37*	.78**	.38*	1	.70**	-.52**	.12	.25
5. AMI	-.08	.75**	.57**	.70**	1	-.60**	.02	.03
6. SRES	.46**	-.69**	-.62**	-.52**	-.60**	1	-.01	-.13
7. LEAP	-.07	.11	.07	.12	.02	-.01	1	.71**
8. Promote	-.16	.14	.02	.25	.03	-.13	.71**	1

Note. Gender = gender of the participant; ASI = participant score on the Ambivalent Sexism Inventory; HS = participant score on hostile sexism subscale of the Ambivalent Sexism Inventory; BS = participant score on benevolent sexism subscale of the Ambivalent Sexism Inventory; AMI = participant score on Ambivalence towards Men Inventory; SRES = participant score on Sex Role Egalitarianism Scale; LEAP = evaluation score given to leader in scenario by participant; Promote = How likely (0 to 5 likert scale) would participant be to promote leader
* $P < .05$; ** and boldface, $P < .01$

Table 3

Intercorrelations between gender or leader, job type, gender of the participant, ASI, HS, BS, AMI, SRES, LEAP and Promote across all scenarios.

	1	2	3	4	5	6	7	8	9	10
1.LdrGndr	1	0	-.03	.15	.20	.04	.08	-.10	.08	.18*
2.JbTyp	0	1	-.07	.00	-.05	.06	.03	-.03	-.03	-.04
3. Gender	-.03	-.07	1	-.43**	-.25**	-.48**	-.18	.37**	.15	.00
4. ASI	.15	.00	-.43**	1	.84**	.82**	.77**	-.62**	-.06	.00
5. HS	.20*	-.05	-.25**	.84**	1	.38**	.58**	-.56**	-.09	-.04
6. BS	.04	.06	-.48**	.82**	.38**	1	.70**	-.46**	-.00	.05
7. AMI	.08	.03	-.18	.77**	.58**	.70**	1	-.52**	.06	-.07
8. SRES	-.10	-.03	.37**	-.62**	-.56**	-.46**	-.52**	1	.12	.00
9. LEAP	.08	-.03	.15	-.06	-.09	-.00	-.06	.12	1	.63**
10.Promote	.18*	-.04	.00	.00	-.04	.05	-.07	.00	.63**	1

Note. LdrGndr = gender of the leader in the scenario; JbTyp = gender of the job type; Gender = gender of the participant; ASI = participant score on the Ambivalent Sexism Inventory; HS = participant score on hostile sexism subscale of the Ambivalent Sexism Inventory; BS = participant score on benevolent sexism subscale of the Ambivalent Sexism Inventory; AMI = participant score on Ambivalence towards Men Inventory; SRES = participant score on Sex Role Egalitarianism Scale; LEAP = evaluation score given to leader in scenario by participant; Promote = How likely (0 to 5 likert scale) would participant be to promote leader.

* $P < .05$; ** $P < .01$.

That is, male participants tended to be more ambivalently sexist and less gender-egalitarian than did female participants. Furthermore, there was no interaction effect of leader gender and job type [Hypothesis 3; $F(5, 112) = 0.59, ns$].

Analysis of Hypothesis 4 failed to show a correlation between sex role egalitarianism and the evaluation of leadership performance as a function of the scenarios. The FFJ, FMJ, MFJ, and MMJ scenarios showed correlations of $r(31) = .27, ns$, $r(31) = .20, ns$, $r(31) = .04, ns$, and $r(31) = -.01, ns$, respectively. A Steiger's Z-test of correlated correlation comparing correlations

between sex role egalitarianism and the evaluation of women's leadership performance for the gender congruent and incongruent scenarios did not show a significant difference between scenarios, $z = .28, ns$. A Steiger's Z-test of correlated correlation also failed to show a significant difference between sex role egalitarianism and the evaluation of men's leadership performance correlations for the gender congruent and incongruent scenarios as well, $z = .19, ns$. The lack of difference between correlations suggests that the level of egalitarianism was not related to evaluation scores given to either male or female leaders. The hypothesis that less egalitarian individuals would rate male or female leaders in incongruent job types lower than those in congruent job types was not supported.

Analysis of Hypothesis 5 failed to show a correlation between benevolent sexism and the evaluation of leadership performance as a function of any scenario. The FFJ, FMJ, MFJ, and MMJ scenarios had correlations of $r(31) = -.18, ns$, $r(31) = -.19, ns$, $r(31) = .18, ns$, and $r(31) = .12, ns$, respectively. A Steiger's Z-test of correlated correlation between benevolent sexism and the evaluation of women's leadership performance for the gender congruent and incongruent scenarios did not show a significant difference between scenarios, $z = .04, ns$. This same analysis also failed to show a significant difference for correlations between benevolent sexism and the evaluation of men's leadership performance for the gender congruent and incongruent scenarios, $z = .23, ns$. Therefore it seems that the hypothesis that more benevolent sexists would evaluate the performance levels of men and women leaders working in incongruent job types poorer than men and women leaders working in congruent job types was not supported. This lack of support was evidenced by the lack of significant differences in correlations between the men and women leaders in the incongruent and congruent job types.

Analysis of Hypothesis 6 showed a significant negative correlation between hostile sexism and the evaluation of women's leadership performance for the gender congruent scenario, $r(31) = -.36, p < .05$. There was no significant correlation between hostile sexism and the evaluation of women's leadership performance in an incongruent job type scenario, $r(31) = -.08, ns$, nor for benevolent sexism and the evaluation of men's leadership performance in either the incongruent or congruent job type scenarios, $r(31) = -.10, ns$, or $r(31) = .07, ns$, respectively. A Steiger's Z-test of correlated correlation comparing correlations between hostile sexism and the evaluation of women's leadership performance in a gender congruent job type scenario with correlations between hostile sexism and the evaluation of men's leadership performance in a gender congruent job type scenario did not show a significant difference between scenarios, $z = -1.03, ns$, nor was a significant difference in correlation found between hostile sexism and the evaluation of men's and women's leadership performance for the gender congruent scenarios, $z = -1.67, ns$. This same analysis failed to show a significant difference between correlations for hostile sexism and the evaluation of women's leadership performance in a gender incongruent job type scenario with correlations between hostile sexism and the evaluation of men's leadership performance in a gender congruent job type scenario, $z = -.56, ns$, nor was a significant difference in correlation found between hostile sexism and the evaluation of men's and women's leadership performance for the gender incongruent scenarios, $z = .08, ns$. The hypothesis that hostile sexists would negatively evaluate women's leadership performance compared to men's leadership performance was not supported. However, the results showed that hostile sexists tended to negatively rate female leaders in the feminine job type.

Discussion

The object of the present research was to examine the relationship between ambivalent sexism, adherence to traditional gender roles, gendered job types, performance evaluations and promotion decisions. The results from the study shows that the majority of the hypotheses were not supported. That is, there was no significant difference between the leadership performance ratings or promotion decisions for men or women working in either gender congruent or gender incongruent job types. In addition, the results of this study did not show a significant difference for the correlations between sex role egalitarianism, hostile sexism, benevolent sexism, and the evaluation performance of the leader in the scenario as hypothesized. Specifically, it was hypothesized that participants demonstrating low sex role egalitarianism or high levels of benevolent sexism would evaluate men's or women's leadership performance in incongruent job types worse than those in congruent job types. The results of the present study did not show a significant difference between the evaluation of men's and women's leadership performance and sex role egalitarianism or benevolent sexism when comparing men and women leaders in gender congruent and incongruent job types.

It was hypothesized that sexists would evaluate women's leadership performance more negatively than men's leadership performance regardless of whether the leader was in a gender congruent or gender incongruent job type. While analysis demonstrated a significant negative correlation between hostile sexism and leader performance evaluation scores for female leaders working in congruent job types, there was no significant difference between the correlations of hostile sexism and evaluations of women's leadership performance in gender incongruent job types or evaluations of men's leadership performance in congruent or incongruent job types. The insignificant difference between the correlations indicates that hostile sexists did not evaluate

women's leadership performance worse than men's leadership performance in congruent or incongruent job types, and consequently does not support the hypothesis that hostile sexism would evaluate women's leadership performance worse than men's leadership performance. Therefore, Hypothesis 6 was not supported by the present study.

Mention should be made about the significant positive relationship between hostile sexism and the evaluation of women's leadership performance in the gender congruent job type scenario. It is interesting that the significant result was observed in only one of the four scenarios, specifically the scenario with the female leader in the feminine job type. This result appears to run contrary to Gender Role Congruency theory (Eagly & Karau, 2002). According to Gender Role Congruency, the FMJ scenario should have had an even stronger negative correlation between HS and LEAP than did the FFJ scenario, due to the female leader in the FMJ scenario being in a more pronounced masculine gender role compared to the FFJ scenario. If this is the case, then it could have implications about the validity of the Gender Role Congruency theory, and that there may be need of a more precise theory in its place. It is also possible that due to their young average age participants may have been exposed to many women and men who work in incongruent jobs. In the present study, there wasn't a significant correlation between age and ambivalent sexism or age and sex role egalitarianism. Furthermore, 90% of participants were between 18-25 years old, while only 10% were between 26-50 years old. With such a large percentage of the participants being young college students, life experience may have an influence on their formation of gender role ideologies and egalitarian attitudes. Therefore, Congruency theory may no longer correctly predict the job evaluation score of these younger participants. Future research should examine the relationship between age, ambivalent sexism, and sex role egalitarianism using a sample with a greater age distribution than the present study,

and see if there is a greater level of egalitarianism or a lesser level of ambivalent sexism in the younger participants compared to the older participants.

There are a number of speculations that could have contributed to a lack support for the proposed hypotheses. First among these speculations was concerning the lack of variability in the measure for the study. A lack of variability in the dependent measure used to compare the different hypothesized relationships and conditions would be the main reason. There was a ceiling effect demonstrated by the high average score on the measure across all scenarios with the average rating being above "agree". Further analysis supports this speculations as 84 of 124 (68%) of participants gave ratings of "agree" or "strongly agree" across all items on the LEAP. In fact, this ceiling effect may have been associated with the construction of the scenario. The scenario was created with an equal number of positive female and male characteristics, as well a few gender neutral positive characteristics, to describe the leader in the situations. One aspect that may have been missing from the scenario could have been a few negative tendencies or characteristics of the leader. It is easy to rate the leaders in the scenario high on the performance evaluation if there are no negative aspects or characteristics of the leader presented in the scenario. Incorporating negative characteristics may have contributed to more variability in the LEAP scores, which may have lead to more support for the hypotheses.

Another potential contributing factor may be related to the design of the scenario. The scenario was designed to model a situation where the participant took on the role of a regional manager and was asked to evaluate the promotion potential of a person pretty far on in their career. It is not likely that the majority of participants have had any kind of experience with this type of situation, as the majority of them were college students. Had the scenario been more

appropriate to the college student demographic, like a professor evaluation for example, it is possible that there may have been more variability in the dependent measure.

In addition to the lack of variability in the dependent variable, the study design, specifically the reading of a short scenario and taking an evaluative measure for performance, may have negatively affected support for the hypotheses, particularly for the first three hypotheses. As mentioned earlier, the study and scenario were modified from the study conducted in Spain by Garcia-Retemero and Lopez-Zafra (2006) to test the Gender Role Congruency Theory by looking at one's promotion decisions for gender congruent and incongruent job types. There were, however, major differences between the study conducted in Spain and the present study. In the Spanish study, there were 705 participants with a similar gender split to the present study (54% female and 46% male), but they were much more demographically diverse than participants in the present study. Where as in the present study most participants were undergraduate college students with an average age of 22 years old, and an age range of 18 to 50 years old, the participants in the Spanish study were a mixture of high school students (21.1%), undergraduate students (31.5%), current workers (32.2%), and retired adults (15.2%) with a median age of 36 years old and an age range of 11 to 82 years old. Although previous research has not found major differences between Spanish and American perceptions of gender roles (Silván-Ferrero & Bustillos López, 2007) or gender segregation in the labor market (Río & Alonso-Villar, 2010), these differences in the participants' demographics could have contributed to the hypotheses not being supported due to the difference in life experience between the participants in both studies. The participants in the present study most likely did not have as extensive experience as part of the work force as those from the other study where more than half of the participants were currently in the workforce or had retired

after completing their careers. This difference in experience also may have contributed to the hypotheses not being supported.

In addition to a lack of variability in the LEAP measure and the difference in demographics between the present study and the study conducted in Spain, there is also the possibility that the social desirability effect may have contributed to the hypotheses not being supported. Consistent with the literature, there was a significant gender difference in levels of ambivalent sexism and sex role egalitarianism. Female participants in the present study tended to demonstrate less ambivalent sexism than male participants (Glick and Fiske 1996; Glick et al. 2004; Silván-Ferrero and Bustillos López 2007) and more sex role egalitarianism (Locke and Richman 1999; Berkel 2004), which can be interpreted as women in the present study being less sexist and more egalitarian in their view of gender roles than men. This finding is interesting in the present study because of the lack of gender differences in the scores given on the LEAP and Promote items across all scenarios. The SRES, ASI, and AMI are all well established measures that have returned consistent results over the years. The LEAP, Promote, and scenario may have high face validity, and do not possess any controls for social desirability which makes it easy for participants, especially participants receiving a liberal arts college education, to tell the researchers what the participants think that the researchers want to hear. This also makes it difficult for the researchers to know if the responses accurately measured the actual attitudes of the participants and what the participants felt they should say. The instructions given on the measures did inform the participants that we as researchers were interested in the personal opinion of the participant, not what society says they should do. In addition to the instructions, it was made explicitly clear in the informed consent that all responses to every part of the study

would be anonymous. Despite these precautions taken by the researcher, it is possible that these instructions may not have been followed, thereby possibly confounding the outcome.

Finally, two of the participants commented to the researcher after they had finished both parts of the study that, even though they had read the instructions and explanatory paragraph explaining the role of the participant while reading the scenario, they didn't feel sufficiently informed or qualified to evaluate the performance of the person in the scenario. Instead of evaluating, these participants confessed that they had arbitrarily selected ratings on the LEAP instead of following the instructions and doing their best to evaluate the person according to the scenario. Due to the confessions of these two participants, it is logical to think that there may have been others that responded in the same manner, not following the instructions as they were presented to them. This is a potentially potent confound, one that could possibly be the largest contributor to insignificant results.

Future Research

The most immediate avenue for future research with this project would be to repeat the study after making changes to the sample demographics, the scenario for the groups, or both.

One way to change the demographics of the sample would be by using a greater number of participants to increase the statistical significance, and by using participants recruited from organizations (i.e. corporations, government entities etc.) that would have more experience in the actual job market. It may also help to recruit participants from the work force that have held or do hold senior leadership positions and have conducted performance evaluations and promotion recommendations. By taking the research in this direction, future researchers may hope to find statistically significant, externally valid results far superior to those that could be obtained using other methods.

In order to accurately evaluate the congruency hypothesis,, changes to the scenario should be made. Including negative characteristics of the leaders may increase the variability in the responses on the LEAP dependent variable as it is pretty easy to evaluate and individual highly and recommend them for a promotion if a person is only looking at positive qualities that the person possesses.

In addition to adding negative leader characteristics to the scenario, it may also be effective to change the scenario to be more relatable to a sample from undergraduate students. It had been brought to my attention by the students that emailed me about not feeling comfortable in making evaluation decisions that the scenario was asking the students to imagine themselves doing a task that was foreign to them, and this might be difficult and confound the results by interfering with how they would have otherwise responded to the performance evaluation. Replacing the task with one more familiar to students, like evaluating a professor's performance and recommending that professor should get the job using traditionally male and female majors may result in a more accessible scenario for student participants.

Future research should also examine including items in the LEAP scale to test for the social desirability effect. The way the study is set up participants may feel pressure to respond in a more socially acceptable manner. Including a few items to test for social desirability could allow for future researchers to detect the presence of the social desirability effect and account for it in their interpretation of the results from using the measure. An addition of items to test for social desirability could be especially useful for performance evaluations in more controversial settings, like in research on sexism or racism where the likelihood of the participant to feel pressure to answer in a socially desirable way may be greater.

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