Examining Gender Differences in Hitting the Glass Ceiling and Riding the Glass Escalator

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Doctor of Philosophy

Samantha A. Morris
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This dissertation titled
Examining Gender Differences in Hitting the Glass Ceiling and Riding the Glass Escalator

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Abstract

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Examining Gender Differences in Hitting the Glass Ceiling and Riding the Glass Escalator (125 pp.)

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Decades of research, and even the Federal government, have recognized the existence of the so-called glass ceiling (U. S. Department of Labor, 1991). Some contemporary investigations have speculated that women are discriminated against in the workplace when there is a misalignment between the type job or job requirements and the stereotypical traits associated with sex and gender (Heilman, 1983; Eagly & Karau, 2002). However, such explanations are invalidated when considering males who work in female-dominated or feminine gender-typed jobs. The preferential treatment of men in female-dominated jobs has come to be known as the glass escalator (Williams, 1992). The glass escalator phenomenon stands in contrast to theories and hypotheses that suggest norm violations are responsible for backlash against individuals who pursue out-of-role careers (i.e., male nurses or female managers). Additional research is needed to explain the differences between male and female norm violation effects.

To achieve this goal, the current study modified and extended the penalties for success research conducted by Heilman et al. (2004) to include reactions to males who pursue work in feminine gender-typed jobs. A secondary objective of the current study was to examine a potential explanation as to why male norm violators might be viewed more positively than female norm violators. It was predicted that males in feminine
gender-typed jobs would not only be perceived as possessing both the positively valenced masculine, agentic traits associated with their sex, but also the positive communal traits associated with the job gender-type.

Results of this investigation revealed that at the multivariate level there was a significant interaction between the sex of the target and the gender-type of the job. The pattern of means revealed that female norm abiders were rated the most favorably, followed next by male norm-violators, then male norm-abiders with female norm violators viewed the least favorably. However, the follow-up univariate analyses for each of the dependent variables were non-significant. Whereas the pattern of means for female norm violators is consistent with norm violation explanations for workplace discrimination, the pattern for male norm violators is not. Implications and limitations of the current study are discussed.

Approved: _____________________________________________________________

Paula M. Popovich
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Introduction

Decades of research, and even the Federal government, have recognized the existence of the so-called glass ceiling. According to the U. S. Department of Labor (Report on the Glass Ceiling Initiative, 1991) the glass ceiling refers to attitudinal and workplace biases that lead to the obstruction of qualified individuals from higher-level positions. Although the glass ceiling represents the discrimination of any qualified individual in an organization (U.S. Department of Labor) it is most commonly thought of as a type of sexism, where women are held back from prestigious positions and higher paying jobs (Giele & Stebbins, 2003). Researchers have hypothesized and investigated many explanations for the inequity faced by women in the workplace, particularly in the higher-level positions often associated with the glass ceiling. For example, some researchers have speculated that women are discriminated against in the workplace when there is a norm violation or misalignment between the type of job or job requirements and the stereotypical traits associated with sex and gender (Heilman, 1983; Eagly & Karau, 2002). However, such explanations are often called into question when considering males who work in female-dominated or feminine gender-typed jobs.

In recent years, researchers, news reports and casual observers alike have noted an influx of males into occupations traditionally thought of as “women’s work”. Although some reports have speculated that the increase of men into these fields may be just a “trend” (e.g., Merritt, 2007), researchers have been examining the “trend” for years. Some of the earlier investigations in this area attempted to discover whether men in female-dominated occupations are discriminated against in the same manner that women
are who work in male-dominated fields are discriminated against (Floge & Merrill, 1986; Williams, 1992). The results from these studies have demonstrated that males working in these fields were typically not disadvantaged in any way. In fact, Williams interviewed both males and females nurses and found that there is a strong belief “that men are given fair - if not preferential- treatment in hiring and promotion decisions” (p. 263). This preferential treatment of men in female-dominated or female-gendered jobs is known as the “glass escalator” effect (Williams, p. 253). Specifically, Williams defined the glass escalator as “subtle mechanisms [that] seem to enhance men’s positions” in female professions (p. 263).

Clearly, the outcomes described by the glass escalator phenomenon are contrary to the norm violation predictions commonly used to explain the glass ceiling and other penalties for individuals who pursue out-of-role careers (i.e., male nurses or female managers). Accordingly, research is needed to create a balanced paradigm for explaining the differences between male and female norm violation effects. In other words, why do females hit the glass ceiling, whilst males ride the glass escalator? Furthermore, although several field studies have demonstrated support for the glass escalator, to date there are no experimental investigations examining this phenomenon. Finally, if the glass escalator does indeed exist, this would seemingly reduce the efficacy of norm violation hypotheses as gender neutral explanations of workplace discrimination. A discovery of this sort would call for an extension of the current research in order to explain the different outcomes for male and female norm violators. Each of these research aims are objectives of the current study.
The Glass Ceiling

Despite much debate on the topic, it has been recognized by researchers (e.g., Heilman & Okimoto, 2008; Cuddy, Fiske, & Glick, 2004; Eagly & Karau, 2002) and the U.S. federal government alike (i.e., Report on the Glass Ceiling Initiative. U.S. Department of Labor, 1991) that women have been systematically discriminated against in the workplace. Of particular interest to this investigation is the discrimination against women who take on “men’s work”. Men’s work can be classified as professions in which (a) males comprise the clear majority, (b) are the most prestigious or monetarily rewarded, (c) or are considered only suitable for individuals with masculine characteristics (Heilman, 1983). Of course, the three categories mentioned above are often not mutually exclusive and can all contribute to the glass ceiling barrier faced by many women in the workplace.

Although there remains some question as to who first coined this notable phrase, there is little ambiguity about what the glass ceiling is and its implication for women. In fact, in late 1980s the federal government commissioned a team from the U.S. Department of Labor to investigate the glass ceiling phenomenon. The Glass Ceiling Commission, as it was aptly named, defined the glass ceiling as the “artificial barriers based on attitudinal or organizational bias that prevent qualified individuals from advancing upward in their organization into management-level positions” (Report on the Glass Ceiling Initiative. U.S. Department of Labor, 1991). According to this definition, and various publications from The Glass Ceiling Commission, the glass ceiling can pertain to any group disadvantaged by discrimination in the workplace including Asian-
Researchers concerned with the glass ceiling have hypothesized and offered several explanations for the inequity faced by women in the workplace, particularly in the higher-level positions often associated with the glass ceiling. Some of the earliest researchers interested in investigating the barriers faced by women in the workplace speculated that women were restricted from higher-status, higher-level, higher-paying jobs because of their numeric rarity in the workplace, a phenomenon that has been labeled as “tokenism” (Kanter, 1977a, 1977b). More contemporary investigators have speculated that women are discriminated against in the workplace when there is a misalignment between the type of job or job requirements and the stereotypical traits associated with women (Heilman, 1983; Eagly & Karau, 2002). Each of these explanations is described in more detail below.

**Tokenism**

Kanter’s theory of tokenism (1977a, 1977b) offers one of the earliest theoretical explanations as to why women in male-dominated or gender-typed jobs are consistently denigrated. According to this theory, tokenism occurs when a group is composed of a clear majority group, but there exists a clearly definable subgroup within the larger group. Kanter’s (1977a, 1977b) original work on tokenism was based on a field observation of females working in a large Fortune 500 company. During her initial
investigation, Kanter discovered three negative processes that coincide with token status. First, Kanter pointed out that token status leads to increased visibility of a token, and that such visibility may create increased attention as well as greater performance demands. Such demands were hypothesized to lead to either overachieving, to overcome such demands, or underachieving, to remain a non-threat to the majority group members.

Second, Kanter (1977a) described the contrast that occurs between tokens and majority group members. Kanter speculated that such contrasts would lead to a greater exaggeration of the differences between majority group members and tokens. This exaggeration of differences could then result in the social isolation of the token group members.

Finally, Kanter (1977a) described a process in which the token female’s personal characteristics became skewed or misperceived such that these women would fall more in line with female gender stereotypes. Kanter labeled this process “role entrapment” (p. 980), because of the way the female tokens became confined by their gender stereotype. Some of these stereotypes Kanter described included depictions of women as the “iron maiden” (p. 983), the “pet” (p.982), and the “temptress” (p. 982).

Obviously, perceptions of women as these caricatures are incompatible with the image of an ideal, successful, working individual. Accordingly, such stereotypes can be extremely detrimental to the working woman. Furthermore, Kanter discovered that many women opted to adhere to these stereotypes rather than challenge them. This type of self-distortion not only has negative consequences to the self, but may also serve to further perpetuate negative stereotypes of women.
Shortly after her work was published, Kanter’s (1977a, 1977b) theory of tokenism became noticed in many areas concerned with gender issues including gender psychology, women’s issues, organizational behavior, and sociology. Eventually other researchers began empirically investigating the hypotheses established by tokenism. In one such study, Spangler, Gordon and Pipkin (1978) set out specifically to test the hypothesis that “minority achievements are diminished by the underrepresentation of minority persons in majority-dominated work groups” (p. 160). Accordingly, Spangler et al. collected and compared data from female students at two different law schools. One of the laws schools had a male to female ratio which fit Kanter’s definition of a skewed group in which token status is highly visible. The other law school had a proportion of females to males which was defined as tilted, meaning that females were still a minority, but to a lesser extent. According to Kanter (1977a) tilted groups would still be likely to display some of the same affects of tokenism present in skewed groups, but to a much lesser extent, due to their increased representation.

Recall that Kanter (1977a) speculated that tokens face social isolation, role entrapment and adverse performance demands. Thus to stay true to Kanter’s hypotheses, Spangler et al. (1978) compared the females from the two different law schools on each of these dimensions. When examining the performance data, Spangler et al. did indeed discover that the female tokens from the skewed work group had lower academic performance. Furthermore, women at both schools were significantly more likely than men to choose public law and other less-prestigious, more feminine specialties such as public sector jobs. Results from the social isolation data, however, were not so clear.
Spangler et al. discovered two distinct social patterns for the token women of the skewed group. On one hand, there were women who were very much socially isolated from their fellow law students and chose not to associate formally with their classmates. However there was also a group of women who indicated spending much of their free time with their classmates. Spangler et al. speculated that these women were overcompensating for their token status, by overachieving socially. Thus, it seems likely that these women are, in fact, performance overachievers, but in the social domain, not the academic domain.

Nearly a decade after Kanter published her seminal works on tokenism (1977a, 1977b), a critic of the gender neutrality of tokenism observed that, despite Kanter’s attempts to explain token effects as a consequence of numeric imbalance and exclude gender as an explanation of these effects, most of the research supporting tokenism examined women in male-dominated groups (Zimmer, 1988). In fact, although Kanter’s original discussions of tokenism involved a male majority group with female tokens (i.e., comprising less than 15 percent of a groups’ composition), she was careful to point out that, “Every statement that can be made about what women typically do or feel holds true for some men.” (1977b, p. 262).

Zimmer (1988) reviewed numerous investigations of tokenism. Consistent with Kanter’s theory, most of the studies involving female tokens did, indeed, demonstrate the negative consequences of token status (e.g., Kanter, 1977b; Spangler et al, 1978). Zimmer also examined studies involving male tokens (e.g., Kadushin, 1976; Benokraitis & Feagin, 1986). The results of these studies led Zimmer to the following conclusion: “These examples of men’s experiences as tokens suggest that being ‘few’ in a highly
skewed work group has very different consequences for men and women…When males are the tokens, the disadvantages of being the few are minimal and, under some circumstances, turn into advantages.” (p. 70-71).

Zimmer’s (1988) discussion and review of tokenism (Kanter, 1977a, 1977b) criticized the theory for ignoring the salience of gender in a “sexist society” (p. 71). Accordingly, Zimmer asserted that gender-neutral theory is insufficient in truly understanding organizational structures and interaction because it ignores the importance of sex and gender that is imbedded in the society at large.

Yoder (1994) also recognized the potential moderating effects of subordinate gender status as a possible source of tokenism, such that women are often subjected to the negative effects of tokenism processes more so than males, regardless of numeric representation (Yoder, 1991; Laws, 1975; See also Ragins & Sundstrom, 1989, for a review of the gender power differential in organizations). Yoder has speculated that the negative consequences associated with token status may be, in part, caused by the notion that token women were deviating from occupational norms and behaving inappropriately based on gender stereotype prescriptions. An additional potential cause of tokenism as described by Yoder has to do with the notion that male majority groups become threatened when there is an influx of female minorities into male-dominated occupations. This threat is said to be particularly salient in prestigious jobs where the majority have more to lose. Accordingly, Yoder has suggested that females who work in more prestigious occupations are likely to experience more disapproval and discrimination.
In an empirical investigation of tokenism, Crocker and McGraw (1984) also demonstrated the salience of sex for tokenism theory. These researchers conducted a laboratory experiment to test Kanter’s (1977a) propositions, as well as to examine the difference between high and low master status (i.e., male and female) tokens. In their study, Crocker and McGraw varied the sex composition of randomly assigned work groups. The groups were either comprised of one male and five females, one female and five males or three males and three females. After completion of the work task, every group member was questioned regarding their other group members. Recall that Kanter’s theory predicts that tokens may suffer increased visibility, performance deficits, exaggeration of stereotypical characteristics and so on. The findings from Crocker and McGraw’s experiment seemed to generally support these predictions, but only for female tokens. For instance, the results revealed that overall, males were twice as likely to be identified as the leaders of the group. Female tokens never identified themselves as the group leader. Regarding increased visibility and exaggeration of characteristics, female tokens noted their sex 38% of the time and the other members of the token female groups noted their female group member’s sex 31% of the time. Sex and gender were never mentioned surrounding the token male group members. Furthermore, sex was the most commonly noted explanation for the behavior of the female tokens, yet it was the least cited explanation for male tokens. These authors noted that males had “dramatically different” (p.366) outcomes. Such conclusions are consistent with the suppositions of both Yoder (1991) and Zimmer (1988) that subordinate gender status, not just numeric rarity, might moderate tokenism effects.
As evident from the review above, tokenism has received a great deal of attention in the social sciences (See Table 1 for a summary of the literature reviewed in this section). Such popularity has led to extensive study of the theory, much of which has been supportive of the general propositions. However, this research has also uncovered limitations of the original theory. One of the main limitations of tokenism is that it may not apply equally to all token groups, as exemplified with studies of male tokens (e.g., Crocker & McGraw, 1984). Such boundary conditions seem to validate the criticisms of gender neutral theory (Zimmer, 1988) by indicating that numeric rarity is not the sole underlying mechanism for token discrimination or the glass ceiling barriers encountered by individuals in the workforce.

*Lack of Fit Model*

Shortly after Kanter first began her discussions of tokenism Madeleine Heilman (1983) presented another possible explanation for the discrimination that women faced in the workplace. Heilman’s model, unlike token theory (Kanter, 1977a; 1977b), places paramount importance on sex and gender by describing sex stereotypes as a primary component in the causal mechanisms underlying workplace discrimination. Specifically, Heilman proposed that the singular principle of a perceived misalignment between the stereotypes associated with females and the requisite skills and abilities of a job was responsible for both discrimination and “self-limiting behavior” (p.269) in the workplace. She dubbed this perceived misalignment as the “lack of fit” (p.269). See Figure 1 for an illustration of the lack of fit model.
### Table 1

*Summary of Tokensim Literature Reviewed.*

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<thead>
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<th>Authors</th>
<th>Methods</th>
<th>Findings &amp; Conclusions</th>
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| Kanter (1977) | • Field Study  
• Observed employees at a *Fortune 500* company | • Defines tokenism as a clearly definable subgroup within the larger group composed of a clear majority group.  
• Based on her observations, Kanter describes three negative processes that coincide with token status:  
  ▪ Increased visibility of a token potentially leading to increased attention as well as greater performance demands.  
  ▪ Contrast between tokens and majority group members leading to a greater exaggeration of the differences between majority group members and tokens. This exaggeration of differences could then result in the social isolation of the token group members.  
  ▪ The token female’s personal characteristics became skewed or misperceived such that these women would fall more in line with female gender stereotypes. |
• Surveys assessing performance pressure, social isolation and role entrapment were administered to 1,370 randomly selected samples of law students from seven law schools.  
• Data were also collected on demographics and academic performance  
• These law schools represented male:female ratios compatible with Kanter’s definition of tokenism and were compared on each of the variables noted above. | • Female tokens from the skewed work group had lower academic performance.  
• Women at both schools were significantly more likely than men to choose public law and other less-prestigious, more feminine specialties such as public sector jobs.  
• Two distinct social patterns for the token women of the skewed group.  
  ▪ Some women who were very much socially isolated from their fellow law students and chose not to associate formally with their classmates.  
  ▪ There was also a group of women who indicated spending much of their free time with their classmates.  
• The authors speculated that these women were overcompensating for their token status, by overachieving socially. |
### Table 1: continued

**Summary of Tokensim Literature Reviewed cont’d.**

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**Crocker and McGraw (1984)**

- Laboratory experiment.
- Experimenters varied the sex composition of randomly assigned work groups.
- Groups were either comprised of one male and five females, one female and five males or three males and three females.
- After completion of the work task, every group member was questioned regarding their other group members.
- Findings supported Kanter’s token theory predictions regarding increased visibility, performance deficits, and exaggeration of stereotypical characteristics.
- Regardless of group composition, males were twice as likely to be identified as the leaders of the group.
- Female tokens never identified themselves as the group leader.
- Female tokens noted their sex 38% of the time.
- Males from the token female groups noted their female group member’s sex 31% of the time.
- Sex and gender were never mentioned surrounding the token male group members.
- Sex was the most commonly noted explanation for the behavior of the female tokens, yet it was the least cited explanation for male tokens.
- The authors noted that these findings were generally consistent with Kanter’s tokenism theory, but only in regards to the female tokens.
- Males, they noted, had “dramatically different” (p.366) outcomes.
The lack of fit model (Heilman, 1983) is based on the notion that we use stereotyping to categorize and organize an otherwise confusing world. In fact, we know from years of research on sex stereotypes that stereotyping is an efficient cognitive strategy (Smith, 2007), and can be very useful in this regard. However, stereotypes are generalizations that are not always applicable. Thus it becomes somewhat precarious to rely solely on stereotypes to provide us with information about an individual. Such reliance can lead to overgeneralizations and the neglectful disregard of disconfirming behaviors or characteristics (Meyers, 1999). This is how sex stereotypes can become so damaging for the working woman.

Much like the sexes have gender traits ascribed to them, there are also associations which typify jobs. Many jobs are considered to have been gender classified (Heilman, 1983). Heilman refers to the gender classification of jobs as “sex-typing” (p. 276) and has suggested that the root of sex-typing lies in the notion that paid work is a
man’s work. Heilman’s lack of fit model describes bias in the workplace as an interaction between sex stereotypes and the sex-typing of jobs. Specifically, the expectations about how successful an individual will be at a job are “determined by the fit between the perception of an individual’s attributes and the perception of the job’s requirements in terms of skills and abilities” (p. 278). Thus, if a job is typified in terms of masculine skills and abilities then a woman would be deemed incompatible for the job and expectations of failure would be inescapable.

Such expectations of failure are particularly problematic. Heilman (1983) asserted that these expectations of failure may inhibit women from being viewed as qualified for or successful at a job and therefore are often passed over in employment decisions. What is perhaps worse is that women themselves will also perceive this lack of fit between what they as a women are or should be and the traits necessary for a job. In this case, women expect failure out of themselves resulting in either self-fulfilling prophecies or avoidance of certain jobs and tasks. Heilman dubbed these types of self-directed sex biases as “self-limiting” behaviors (p. 269).

The self-limiting component of Heilman’s lack of fit model has been supported in contemporary research on leader positions. Bosak and Sczesny (2008) provided male and female German undergraduate students with recruitment advertisements for a fabricated leadership position. Consistent with Heilman’s (1983) hypothesis, women rated themselves as less suitable for the leadership position. This finding was observed even in a condition where the current leader was described as a female. Furthermore, Bosak and Sczesny tested the meditational influence of agentic or masculine traits on self-ascribed
fit to the leadership position and discovered a significant impact of these traits on fit. The authors concluded that women rated themselves as less suitable for the job because they viewed themselves as possessing fewer of the agentic qualities thought to be required in a position of leadership.

Heilman (1983) is careful to point out that women do not always engage in self-limiting behaviors, nor are women always passed over for jobs in favor of males. According to her model, biases in hiring are only likely to occur when there is a mismatch between sex and the requirements of the job. Heilman refers to this type of discrimination as “pre-entry discrimination” (p. 280), because women are perceived as incapable and therefore never even hired. Even so, some women may in fact be hired into a male sex-typed job. However, the threat of discrimination is not eradicated. “Post-entry” (p.283) discrimination is another kind of bias against females that takes place after employment in an organization is secured (Heilman, 1983).

Current evidence of lack of fit post-entry discrimination was reported in Lyness and Heilman’s (2006) examination of performance appraisal and promotion data of 448 upper-level managers. The authors combed archival data and analyzed the relationships among sex, performance appraisal ratings and promotions between line managers and staff managers. According to Lyness and Heilman, the responsibilities of line managers are highly consistent with male gender stereotypes, whereas the responsibilities of staff managers are more closely associated with female gender stereotypes. Following this reasoning, the authors hypothesized that because of the increased lack of fit between female gender stereotypes and line management positions, women in these jobs would face increased post-entry discrimination when compared to males or female managers in
staff positions. Their results revealed that there was indeed an interaction between sex and type of position, such that female line managers had the most negative performance evaluations. Furthermore, the authors discovered that these negative performance appraisals had detrimental career consequences. Specifically, the data demonstrated that “women’s performance ratings were more strongly related to promotions than were men’s, indicating that the standards for promotion of men were more flexible than the standards for promoting women” (p. 783).

Unfortunately, post-entry discrimination does not end with the performance evaluation and promotion biases noted above. Another form of post-entry discrimination noted by Heilman (1983) and supported by research includes biased causal inferences regarding successful performance. That is, when a woman performs a masculine job task successfully it is often viewed as the result of a simple task or luck as opposed to skill or competence. According to attribution theory, when an individual performs outside of their expectations, the results are often credited to factors beyond the individual (Deaux & Emswiller, 1974). Thus, because women are expected to underperform in a man’s job, when a woman is indeed successful, her achievements are viewed as anomalous and due to chance. Such attributions corroborate stereotypes and prevent the substantiation of any contrary evidence.

This concept of biased attributions for a woman’s success is a reiteration of the classic research by Deaux and Emswiller (1974) titled “Explanations of successful performance on sex-linked tasks: What is skill for the male is luck for the female”. In this influential piece on attribution biases, Deaux and Emswiller had participants listen to individual targets (male and female) perform exceptionally well at either a male-gendered or female-gendered tasks. The results showed, regardless of task gendering, that male
success was attributed to skill, but female success was attributed to luck. The authors concluded that their results provided a “clear indication that equivalent performances by males and females are not explained by the same attributions.” (p. 84).

More recent evidence of these sorts of attribution biases has even implied that men may receive credit for the woman’s work (Heilman & Haynes, 2005). In their investigation, Heilman and Haynes collected data from undergraduate students regarding their evaluations of mixed-sex work dyads. Results of the three-part study revealed that unless the woman’s prior work success, individual performance, or task responsibility was explicitly stated, women were always rated as less competent, less influential, and less likely to partake in leadership responsibilities. The authors suggested that the females were significantly devalued when compared to their male counterparts because of the tendency to credit team success to males.

In earlier works, Heilman (i.e., Heilman et al. 2004, Heilman et al., 1995; Heilman et al., 1989) demonstrated that post-entry discrimination for women in masculine gender-typed jobs can also take the form of social rejection and personal derogation. In one exploration of this reaction to successful women, Heilman and colleagues (Heilman et al. 2004) examined what would happen to upper level (assistant vice president) female employees in a masculine gender-typed job (financial planning) when their success could not be refuted. Their results demonstrated that when success was ambiguous, females were perceived to be less competent than males. Conversely, when success was made explicitly clear, females were viewed as less likable and more hostile than male targets. Furthermore, Heilman et al. (2004) demonstrated that these negative judgments can in fact have detrimental outcomes on evaluations, pay and promotion, despite actual performance.
Heilman (1983) contended that the lack of fit model was not only parsimonious, but also sufficient in explaining various research findings regarding women in the workforce (See Table 2 for a summary of the literature reviewed in this section). Subsequent research has supported Heilman’s model as an explanation for glass ceiling barriers and other forms of sex discrimination in the workplace. The lack of fit model has been extended to other forms of work discrimination as well, including; attractiveness, (Heilman & Stopeck, 1985), race (Finkelstein et al., 2007), weight (Finkelstein, et al., 2007, Polinko & Popovich, 2001), age (Macan et al., 1994) and most recently motherhood (Heilman & Okimoto, 2007).

Despite the popularity and research support obtained by the lack of fit model, subsequent researchers (e.g. Eagly & Karau, 2002) have extended the notion of sex discrimination as a function of a misalignment between sex stereotypes and job requirements by emphasizing that sex stereotypes serve both prescriptive (i.e. how men and women should behave) and descriptive (i.e. how men and women typically behave) functions. The recognition of this dual nature of sex stereotypes has led investigators to hypothesize different forms of workplace discrimination based on the type of sex role violation; descriptive role violations versus prescriptive role violations. Some of the very first discussions surrounding the dual nature of stereotypes and the differential impact on
### Summary of Lack of Fit Literature Reviewed.

<table>
<thead>
<tr>
<th>Authors</th>
<th>Methods</th>
<th>Findings &amp; Conclusions</th>
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<tbody>
<tr>
<td>Heilman (1983)</td>
<td>• Theoretical Paper</td>
<td>• Argued that females are discriminated against in the workplace because the entrance of women into numerically male dominated fields is a norm violation. She dubbed this explanation the lack of fit model and extended her model to include violations of sex stereotypes as an explanation for pre-entry and post-entry workplace discrimination.</td>
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<tr>
<td>Bosak and Sczesny (2008)</td>
<td>• Laboratory experiment</td>
<td>• Women rated themselves as less suitable for the leadership position. This finding was observed even in a condition where the current leader was described as a female.</td>
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<tr>
<td></td>
<td>• Male and female German undergraduate students were provided with recruitment advertisements for a fabricated leadership position.</td>
<td>• Meditational analysis revealed a significant influence of agentic traits on self-ascribed fit to the leadership position.</td>
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<td></td>
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<td>• The authors concluded that women rated themselves as less suitable for the job because they viewed themselves as possessing fewer of the agentic qualities thought to be required in a position of leadership.</td>
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<td>Lyness &amp; Heilman (2006)</td>
<td>• Analyzed the relationships among sex, performance appraisal ratings and promotions between line managers and staff managers using archival data.</td>
<td>• Hypothesized that because of the increased lack of fit between female gender stereotypes and line management positions, women in these jobs would face increased post-entry discrimination when compared to males or female managers in staff positions.</td>
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<tr>
<td></td>
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<td>• Results revealed that female line managers had the most negative performance evaluations.</td>
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<td>• These negative performance appraisals had detrimental career consequences.</td>
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<td>• “Women’s performance ratings were more strongly related to promotions than were men’s, indicating that the standards for promotion of men were more flexible than the standards for promoting women” (p. 783).</td>
</tr>
<tr>
<td>Heilman &amp; Haynes (2005)</td>
<td>• Laboratory experiment</td>
<td>• Unless the woman’s prior work success, individual performance, or task responsibility was explicitly stated, women were always rated as less competent, less influential, and less likely to partake in leadership responsibilities.</td>
</tr>
<tr>
<td></td>
<td>• Data were collected from undergraduate students regarding their evaluations of mixed sex dyad work teams</td>
<td>• The authors suggested that the females were significantly devalued when compared to their male counterparts because of the tendency to credit team success to males.</td>
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Table 2
Table 2: continued

*Summary of Lack of Fit Literature Reviewed cont’d.*

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<th>Authors</th>
<th>Methods</th>
<th>Findings &amp; Conclusions</th>
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| Heilman et al. 2004 | • Laboratory experiment.  
• This study is also reviewed in more depth in Table 5. | • Results revealed that when success was ambiguous, females were perceived to be less competent than males.  
• Conversely, when success was made explicitly clear, females were viewed as less likable and more hostile than male targets.  
• Results also demonstrated that these negative judgments can in fact have detrimental outcomes on evaluations, pay and promotion, despite actual performance. |
workplace discrimination were presented by Eagly and Karau in their presentation of role congruity theory.

**Role Congruity Theory**

Similar to the lack of fit model (Heilman, 1983), role congruity theory (Eagly & Karau, 2002) asserts that gender roles serve a major explicative function in the discrimination of females who pursue careers in masculine gender-typed occupations. Specifically, role congruity theory examines discrimination against female leaders. The theory states that the biases women leaders face in the workplace can be attributed to a discrepancy between gender roles and leader roles. The major difference between the lack of fit model (Heilman, 1983) and role congruity theory as explanations of sex discrimination is role congruity theory’s focus on leadership roles and the emphasis of the dual nature of gender stereotypes.

Recall that Heilman proposed sex discrimination in the workplace was a result of the lack of fit between the job characteristics and the stereotypes associated with women. Eagly and Karau (2002) attempted to expand on this notion by exploring the concept from a social role theory perspective (Eagly, 1987). According to social role theory, gender roles are shared beliefs about the attributes that comprise men and women. Using a series of meta-analyses presented in her book, Eagly demonstrated that males are most commonly believed to manifest more agentic traits such as assertiveness and independence, whereas women are thought to possess more communal traits like emotional expressiveness and sensitivity towards others.
In her discussion of social role theory, Eagly (1987) also contended that gender roles serve dual functions. First, she noted that gender roles serve to describe how males and females typically act. This is the descriptive function of gender roles. The injunctive or prescriptive function, on the other hand, offers explanations as to how males and females should act, thus serving as a prescription for proper role behavior. According to Eagly and Karau (2002), it is this duality of gender roles which leads two separate forms of prejudice against female leaders.

Role congruity theory (Eagly & Karau, 2002) explores social role theory’s (Eagly, 1987) concept of descriptive and prescriptive gender norms as the explanation for two different forms of discrimination against female leaders. According to role congruity theory, the first form of prejudice that female leaders are subjected to is related to the descriptive function of gender norms. People believe that there are certain behavior and characteristics inherent in being a woman. Most commonly, individuals ascribe communal characteristics to women, such as being affectionate or sympathetic (Eagly, 1987). However, these characteristics are often a stark contrast to the agentic characteristics associated with leadership. Agentic attributes like confidence and assertiveness are most commonly ascribed to men (Eagly, 1987). Eagly and Karau contended that the incongruity between the communal behaviors characterized by the descriptive function of the female gender role and the agentic qualities often sought in leaders is what generates one form of prejudice against female leaders in which women are not viewed as fit occupants of leader roles.
This type of prejudice is most in line with the notion that a lack of fit between sex stereotypes and the sex-typing of jobs leads to pre-entry discrimination (Heilman, 1983). Accordingly, when this lack of fit or incongruity is perceived females will not even be considered for the job. Burgess and Borgida (1999) also proposed that descriptive sex stereotypes lead to a unique form of discrimination against women. They described “disparate impact” as “hiring and promotion decisions that are biases against a class of people” (p. 666). Burgess and Borgida also argued that disparate impact for women stems from a mismatch between descriptive sex stereotypes of the females applicants and the male sex stereotypes used as evaluation criteria. These authors provided archival support of their supposition by discussing hiring and promotion practices of companies such as Sears, who were litigated against for favoring applicants with deep voices and who enjoyed hunting and fishing.

Pre-entry discrimination or disparate impact is not the only obstacle for the female leaders in organizations. Eagly and Karau (2002) described a second form of prejudice against female leaders stemming from the prescriptive function of gender roles. Because of the association between leadership behaviors and masculine or agentic characteristics (Schein, 1973, 1975 & 2001), when a woman becomes a leader she is often viewed as violating her gender roles and norms. That is, a female leader who fulfills the agentic requirements of the leadership role is not acting in accord with prescribed beliefs as to how a woman should behave. Such deviations from the prescribed communal role often result in negative evaluations of female leaders (Heilman et al., 2004; Eagly & Karau, 2002; Tannen, 1994). This notion that the prescriptive component of gender stereotypes
leads to a unique form of sex discrimination was argued by Burgess and Borgida (1999) as well. These authors asserted that gender prescriptions lead to disparate treatment, such that women who violate the gender norms associated with femininity will be “punished, either through hostile environment harassment or through the devaluation of their performance” (p. 666).

Research support for the notion that women who do not act in line with prescriptive norms are penalized for their violation can be found in the recent works of Heilman and colleagues (Parks-Stamm, Heilman & Hearns, 2008; Heilman & Okimoto, 2007; Heilman et al., 2004). In each of these investigations, the researchers were able to confirm that female targets who were undeniably successful in traditionally male occupations were still victims of prejudice. These female targets were viewed as hostile and unlikable. Furthermore, in one of the investigations (Heilman et al., 2004) the researchers demonstrated that these personal denigrations could indeed have an impact on the professional advancement of the female targets because most participants considered such targets as unlikely candidates for an upper management team, regardless of their skills and abilities. Thus, despite the fact that some women will be able to overcome the barriers presented by the descriptive function of gender roles by assuming positions traditionally held by men the very traits that enabled them to reach that position will be held against them and they will be subjected to new forms of prejudices for violating the prescriptions associated with their gender role.

Eagly and Karau (2002) not only provided explanations for discrimination of female leaders, and how and why females hit the glass ceiling, but these authors also use
role congruity to make predictions about the emergence of female leaders. According to role congruity theory “achieving leadership is more difficult for women than men, because of the common perception that women have less leadership ability and (often) the preference that women will not exhibit this ability and instead engage in communal, supportive behavior” (p.581). It is this sort of limited access to prestigious jobs and leadership positions that gives creditability to the existence of the glass ceiling.

To test Eagly and Karau’s (2002) prediction regarding leader emergence, Ritter and Yoder (2004) replicated Megaree’s (1969) classic research design in which same and mixed sex dyads had to select leader’s to convey information about either a male-gendered task, a female-gendered task or a neutral task. Furthermore, each dyad consisted of an individual who had previously scored high on the California Psychological Inventory dominance scale (CPI) and a member who had scored low on the dominance subscale of the CPI. The resulting experimental design was a 2 x 2 x 3 factorial design crossing sex composition of the dyad, sex of the dominant member and gender typing of the task. Results indicated that even when the female was the dominant group member, leadership was yielded to the male 70 percent of the time when the task was male-gender typed and 60 percent of the time when the task was neutral.

The findings from this study support Eagly and Karau’s (2002) prediction of leader emergence by demonstrating that achieving leadership is far more difficult for women even when they possess the agentic traits associated with leadership positions. As an aside, it is interesting to note that although there was a significant interaction of dominance and task gender-type within the mixed-sex dyads, only the cells involving
women as the dominant group member were examined. In fact, the authors noted that only cells containing dominant females were of interest to the study, and therefore, other cells (e.g. dominant males with a feminine gender-typed task) were virtually ignored.

Research on role congruity theory (Eagly & Karau, 2002; See Table 3 for a summary of the research reviewed in this section) and its predecessor, the lack of fit model (Heilman, 1983), have successfully demonstrated the impact of the descriptive content of gender roles and sex stereotypes on the glass ceiling barriers and other forms of workplace discrimination. Unlike Heilman’s original model, role congruity theory has also established the importance of the prescriptive component of gender roles and sex stereotypes. Specifically, prescriptive gender roles contribute to the negative evaluations of women who occupy leader roles and behave more in line with the agentic traits of a leader and less like the communal prescriptions of their gender role. This significance of the prescriptive component of gender roles was later recognized by Heilman in subsequent research (e.g., Parks-Stamm, Heilman & Hearns, 2008; Heilman & Okimoto, 2007; Heilman et al., 2004) and discussions of the lack of fit model (Heilman, 2001). Nevertheless, although the recognition of the duality of gender stereotypes may have shed some light on women’s inability to shatter the glass ceiling, it does not entirely enlighten all the nuances of sexism in the workplace. Accordingly, some of the more recent research studies of discrimination against females in the workplace have begun investigating what happens to women when they crack the glass ceiling. The focus of such studies has been on how women in upper level positions are treated in the workplace.
<table>
<thead>
<tr>
<th>Authors</th>
<th>Methods</th>
<th>Findings &amp; Conclusions</th>
</tr>
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</table>
| Eagly & Karau (2002)    | • Theoretical Paper                                                     | • Theory of gender discrimination in leadership which suggests that gender roles serve a major explicative function in the discrimination of females who pursue careers in masculine gender-typed occupations.  
• The theory states that the biases women leaders face in the workplace can be attributed to a discrepancy between gender roles and leader roles.  
• Eagly and Karau note the importance of the prescriptive component of gender roles and sex stereotypes. Specifically, this theory states that prescriptive gender roles contribute to the negative evaluations of women who occupy leader roles because such women behave more in line with the agentic traits of a leader and less like the communal prescriptions of their gender role.  
• On the other hand, Eagly and Karau contended that the incongruity between the communal behaviors characterized by the descriptive function of the female gender role and the agentic qualities often sought in leaders is what generates pre-entry discrimination against women because they are not viewed as fit occupants of leader roles. |
| Burgess & Borgida (1999)| • Literature review of articles concerning the descriptive and prescriptive components of gender stereotypes. The review is centered on research published in the APA’s (1991) amicus brief in Price Waterhouse vs. Hopkins (1989). | • Argued that hiring and promotion biases against women stem from a mismatch between descriptive sex stereotypes of the females applicants and the male sex stereotypes used as evaluation criteria.  
• These authors provided archival support of their supposition by discussing hiring and promotion practices of large who were litigated against for favoring male or masculine applicants. |
| Ritter & Yoder (2004)   | • Laboratory experiment: 2 x 2 x 3 factorial crossing sex composition of the dyad, sex of dominant member, and gender typing of the task.  
• Same and mixed sex dyads had to select leader’s to convey information about either a male-gendered task, a female-gendered task or a neutral task.  
• Each dyad consisted of one individual who had previously scored high and one who had scored low on the CPI dominance subscale. | • Results indicated that even when the female was the dominant group member, leadership was yielded to the male 70 percent of the time when the task was male-gender typed and 60 percent of the time when the task was neutral.  
• Findings suggest that achieving leadership is far more difficult for women even when they possess the agentic traits associated with leadership positions. |
Backlash Effects

Although discrimination directed towards women in the workplace may have lessened since some of the early investigations reported above, the barriers presented by the glass ceiling are still unabashedly present. For instance, there is plenty of anecdotal and empirical evidence (e.g., Parks-Stamm et al., 2008; Heilman & Okimoto, 2007; Heilman et al., 2004) that discrimination still occurs even when women are undeniably successful at their jobs. In fact, researchers (e.g., Heilman & Okimoto, 2007; Heilman et al. 2004; Rudman, 1998; Rudman & Glick, 2001) have demonstrated that even when women make their way into the inner sanctums of upper management they are still discriminated against in some form or another. For many women, this discrimination may take the form of negative performance reviews, denial of promotions and so on.

In the late 1990’s Laurie Rudman began examining the dilemma for women who display the agentic traits often viewed as necessary for many higher-level jobs and the communal traits ascribed to the feminine gender role. The problem is that women must engage in self-promotion to highlight their strengths and successful performance; however self-promotion of this kind is counter-normative for women (Rudman, 1998). Rudman predicted that violating female stereotypes in this way might lead to a backlash against agentic females in the workplace. Her research on “backlash effects” (p. 629; Rudman, 1998) has indeed supported this prediction (Rudman, 1998; Rudman & Glick; 1999; Rudman & Glick, 2001).

According to Rudman and Phelan (2008), backlash effects are “social and economic repercussions for disconfirming prescriptive gender stereotypes” (p. 64). In the
original article on backlash effects, Rudman (1998) described a series of three experiments in which participants were interviewing confederates. There were three different interview conditions, one of which the participant was actually interviewing the target to be “hired” as their partner for a Jeopardy! computer game competition. The interview responses of the target were manipulated such that the target either responded to questions in a self-effacing or self-promotion manner. The combined results from this series of studies showed that targets who self-promoted were rated higher on task aptitude than targets who self-effaced. However, the self-promoting female targets received lower social attraction scores and were viewed as less hireable than male targets who self-promoted or the female targets who self-effaced. Furthermore, the self-promotion strategy for a female target was far less effective when the evaluators (i.e., participants) were female than when the evaluators were male. Rudman concluded that women who engaged in self-promotion were violating feminine gender descriptions and were therefore subjected to backlash effects (i.e., lower social attractiveness ratings, less likely to be selected as a partner).

Subsequent examinations of backlash effects have also confirmed the existence of negative workplace outcomes for agentic women (Rudman & Glick, 1999; Rudman & Glick, 2001). In the earliest of these investigations, Rudman and Glick (1999) explored the occurrence of backlash effects in “feminized” management positions. Recall that Heilman (1983) described pre-entry discrimination as a lack of fit between descriptive feminine gender stereotypes and the masculine traits often viewed as necessary for higher-level positions. Accordingly, Heilman suggested that pre-entry discrimination
should be minimized by emphasizing the feminine aspects of the job. Unfortunately for women, Rudman and Glick (1999) found that although the feminization of management may reduce discrimination based on descriptive gender stereotypes, it may actually increase backlash against agentic women for violating prescriptive gender stereotypes.

In their research, Rudman and Glick (1999) compared participant ratings of male and female agentic and communal job applicants. Depending on the participants experimental condition the job description was either masculine or feminine. Consistent with the hypothesis of backlash effects, results demonstrated that regardless of job description, agentic female applicants were rated as less socially competent than male applicants. These ratings proved to be particularly problematic for agentic women applying for the feminized management position as agentic women were less likely than communal women to be selected for the job. On the other hand, communal women were less likely than agentic women to be selected for the masculine job. From these results, Rudman and Glick (1999) speculated that communal women are not viewed as competent enough for a masculine job and agentic women are not perceived as nice enough for a feminine job. These (1999) findings seem to indicate that Heilman’s suggestion to emphasize the feminine qualities of a job might unwittingly create discrimination and backlash against agentic women.

In a follow up examination, Rudman and Glick (2001) sought to replicate and extend their previous findings. Based on the earlier investigations of backlash effects, the researchers expected that agentic women would be discriminated against when applying for feminized management positions, but not when applying to masculine management
positions. A secondary purpose of this investigation was to examine whether the existence of communal traits would temper the backlash effects previously demonstrated with agentic women. Specifically, Rudman and Glick hypothesized that; (a) agentic applicants would be rated as more competent than androgynous applicants, (b) backlash would occur for agentic females, but not androgynous females or agentic males, (c) agentic females would be discriminated against in hiring when the job description was feminized, but, regardless of job description, there would be no difference in hireability ratings for androgynous females.

As expected, the results revealed that agentic females were viewed as more competent, but less likable when compared to androgynous females. Also, consistent with previous findings, agentic females were rated as less likable than equally agentic males. However, in an extension of the earlier research on backlash effects, Rudman and Glick (2001) made an interesting discovery:

Our results suggest that it is a subset of the agentic traits—those related to social dominance (e.g., competitiveness, aggressiveness)—that elicit backlash, because they conflict with the prescription for feminine niceness. Agentic women can avoid the backlash effect by exhibiting only those negative traits associated with competence (e.g., independent, ambitious) and not associated with social dominance, provided they also display communality. The female applicant who displayed agentic competence and communal values was not discriminated against in hiring ratings, irrespective of the job description (p. 758).
Subsequent research concerning discrimination against females in higher-level, male-dominated jobs (Heilman et al., 2004) also reported findings very similar to the backlash effects described by Rudman and colleagues (i.e., Rudman & Glick, 2001; Rudman, 1998; See Table 4 for a summary of the literature reviewed in this section). However, unlike Rudman’s concept of backlash effects, Heilman and colleagues were able to demonstrate that the denigration of a target female can occur at the mere mention of success in a male-dominated or masculine gender-typed job. Recall that backlash effects were only applied to women who have actually engaged in counterstereotypical behavior (e.g., self-promotion), whereas penalties for success have been demonstrated to occur at the mere mention of success in a male-dominated or masculine gender-typed job. In other words, when a woman is described as successful in a male job it is inferred that she possesses masculine, agentic traits and lacks typical feminine, communal traits. Thus, according to Heilman and colleagues, counterstereotypical behavior must not be explicit for penalties for success to occur.

**Penalties for Success**

In a series of recent articles, Heilman and colleagues (Parks-Stamm et al., 2008; Heilman & Okimoto, 2007; Heilman et al., 2004) have explored a concept comparable to backlash effects dubbed “penalties for success” (Heilman et al., 2004, p. 81). Defined by Heilman and colleagues as the social consequences that successful women face, including dislike and denigration, penalties for success are indeed very similar to backlash effects. In the original penalties for success article, Heilman et al. (2004) conducted three experimental studies to assess participant reactions to women who were successful at a
Table 4

Summary of Backlash Effects Literature Reviewed.

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<tr>
<th>Authors</th>
<th>Methods</th>
<th>Findings &amp; Conclusions</th>
</tr>
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| Rudman (1998)    | • Series of three laboratory experiments in which participants interview confederates.  
                   • Target sex (male, female) and two different interview conditions were manipulated; the confederate either responded to questions in a self-effacing or self-promotion manner. | • The combined results showed that targets who self-promoted were rated higher on task aptitude than targets who self-effaced.  
                   • However, the self-promoting female targets received lower social attraction scores and were viewed as less hirable than male targets who self-promoted or the female targets who self-effaced.  
                   • The self-promotion strategy for a female target was far less effective when the evaluators (i.e. participants) were female than when the evaluators were male.  
                   • Concluded that women who engaged in self-promotion were violating feminine gender descriptions, and therefore subjected to backlash effects |
| Rudman & Glick (1999) | • Laboratory experiment.  
                   • Compared participant ratings of male and female agentic and communal job applicants.  
                   • Depending on the participants experimental condition the job description was either masculine or feminine. | • Results demonstrated that regardless of job description, agentic female applicants were rated as less socially competent than male applicants.  
                   • Agentic women were less likely than communal women to be selected for the job.  
                   • Communal women were less likely than agentic women to be selected for the masculine job.  
                   • Rudman and Glick (1999) speculated that communal women are not viewed as competent enough for a masculine job and agentic women are not perceived as nice enough for a feminine job. |
| Rudman & Glick (2001) | • Replication and extension of Rudman and Glick (1999). This study also included an androgynous female applicant. | • Results revealed that agentic females were viewed as more competent, but less likable when compared to androgynous females.  
                   • Agentic females were rated as less likable than equally agentic males.  
                   • Results also suggested that it is a subset of the agentic traits—those related to social dominance that elicit backlash, because they conflict with the prescription for feminine niceness.  
                   • Agentic women can avoid the backlash effect by exhibiting only those agentic traits associated with competence (e.g., independent, ambitious) and not associated with social dominance, provided they also display communality.  
                   • The female applicant who displayed agentic competence and communal values was not discriminated against in hiring ratings, irrespective of the job description (p. 758). |
male-gendered job. In the first study the researchers presented all participants with a description of an upper-level (assistant vice president) employee in a masculine gender-typed job (financial planning). All participants received descriptions of a man and woman. The researchers also manipulated clarity of the target’s success by presenting either results of a recent performance evaluation (clear success condition) or by noting that the performance evaluation was impending (ambiguous success condition). Once participants reviewed all of the information on the job and the target employee they were asked to rate both the male and female target on variables such as competence, achievement orientation, likability and hostility. The results from Study 1 confirmed the authors' hypotheses, namely that in the ambiguous condition the female target was rated as less competent and achievement oriented than the male target, although when success was unambiguous (i.e., obvious) there was no difference between the male and female target on these traits. However, clarity of success did lead to differences in the likability ratings of the male and female targets. Females were rated much less likable and much more hostile than were the male targets. Another striking finding that Heilman et al. reported with Study 1 was the strength of the reaction to the female target who was successful at the masculine gender-typed job. “Women, although rated less competent and achievement-oriented than men when information about success was ambiguous, were also rated as less hostile interpersonally…But the turnaround with the clear indication of success is dramatic-women who are acknowledged as successful are viewed not merely as indifferent to others but as downright uncivil” (p.420).
Although these results were clearly supportive of the notion that women are penalized for success at a masculine gender-typed job, there was not a direct test of the gendering of the job. That is, this study did not provide direct evidence that the penalties were due to a violation of gender norms and not simply penalization for success. To truly determine whether the penalties were the result of success or the result of success at a masculine gender-typed job Heilman et al. 2004 devised a second study in which gender-typing of the job was also manipulated. In this second study, participants once again received information about a male and female target, however, in this study participants were told that the job was either in financial planning (masculine gender-typed), employee assistance (feminine gender-typed) or training (gender neutral). After reading all of the information about the jobs and the employees, participants were asked to rate each of the targets on competence, achievement orientation, likability and hostility. As expected, the results revealed reactions similar to those of Study 1; that is women who were successful were viewed as less likable and more interpersonally hostile. What was key about the Study 2 findings is that the penalties for success were only evident amongst the female targets who were successful in the masculine gender-typed job, not amongst the female targets in the female or neutral gender-typed jobs. Heilman et al. concluded that these results were evidence for the notion that social penalties and social rejection are a reaction to prescriptive gender norm violations, not success in and of itself.

The third and final part of this study was designed to establish that the penalties for success that women face are not only socially isolating, but can also have deleterious effects on work-related outcomes such as performance evaluations, pay and promotion.
In Study 3, Heilman et al. (2004) provided participants with information about the competence and likability ratings of male and female targets. Participants were asked to use this information to make evaluative judgments about the targets and personnel recommendations. Their findings demonstrated that likability ratings had a detrimental impact on each of these variables, even when the target was highly competent.

Taken together, the results from this three-part study conducted by Heilman et al. (2004) demonstrated that when success in a masculine gender-typed job was ambiguous, females were perceived to be less competent than males; yet when success was made explicitly clear females were viewed as less likable and more hostile than male targets. Furthermore, Heilman et al. demonstrated that, despite actual performance, negative personal judgments can have serious and detrimental effects on evaluations, pay and promotion. See Table 5 for a review of Heilman et al.’s (2004) methods, findings, and conclusions.

The Implied Communality Deficit

In a subsequent investigation by Heilman and Okimoto (2007), these authors offered additional insight as why women who are successful at masculine gender-typed jobs are penalized for their accomplishments. Specifically, these researchers examined whether or not the penalties incurred for women who are successful in male-dominated jobs are the result of supposed deficits in the communal attributes associated with female gender stereotypes. In other words, are women who are successful in male jobs penalized because they are perceived to be lacking in nurturance, sensitivity and other feminine characteristics?
To test this supposition, Heilman and Okimoto (2007) devised a three-part study to determine if providing participants with information about a female manager’s communality would reduce penalties for success. In the first study, participants were asked to review information on a male and female vice president of a financial affairs department (a male gendered position). Participants were randomly assigned to one of three experimental conditions. In the communal condition, the statements introducing the targets included a paragraph about the target’s relationship with their subordinates. This paragraph included descriptors such as “caring” and “sensitive”. In the non-communal condition, these statements included information portraying positive relationships with subordinates however; descriptions of communality were not used. Finally, in the control condition, there was no information about the target’s relationship with subordinates. Results from this first study demonstrated that females in male jobs were rated as more interpersonally hostile and less likable than their male counterparts. However, these negative ratings of successful women were attenuated when information about communality was presented.

In the second study, Heilman and Okimoto (2007) sought to establish that “Communal information will mitigate [penalties for success] only when it is clear that the communality originates from them and is not ambiguous with respect to its source.” (p. 86). To examine this hypothesis, Heilman and Okimoto employed a methodology similar to Study 1, but in Study 2 the researchers were manipulating ambiguity of the source of communality. Accordingly, the control and communal conditions were nearly identical to those used in Study 1. The ambiguity condition described communality as an
organization or team-based initiative. Consistent with the hypothesis, the results revealed that only when the communality traits could be unequivocally linked to the female target was the target not penalized for her success.

The third and final study was designed to examine if non-behavioral forms of information about communality could also reduce or eliminate penalties for success. Of course, one of the most important sources of non-behavioral information regarding communality is whether or not one is a mother. Motherhood is often viewed as the embodiment of femininity and therefore is strongly associated with female, communal stereotypes (Cuddy, Fiske, & Glick, 2004). For these reasons, Heilman and Okimoto (2008) used parental status to signify the presence of communal characteristics. Much like the first two studies, participants were given descriptions of male and female managers in a male-dominated job. The descriptions used in Study 3 were absent any information about communal behaviors, but did include information on parental status. Once again, the findings revealed that successful women are rated as less likeable and more interpersonally hostile than males. Yet, consistent with the communality deficit hypothesis, when the successful women were presented as mothers the negative reactions were eradicated.

Within the three-part study reviewed above, Heilman and Okimoto (2007) presented a possible explanation as to why norm violations lead to glass ceiling barriers, negative interpersonal characterizations and other forms of discrimination for women in the workplace. Specifically, these authors demonstrated that the female targets who were successful in masculine gender-typed jobs were not only punished for deviating from
gender roles and norms by assuming the agentic traits associated with masculine gender-typed jobs, but they are also chastised for a perceived deficit in their communal attributes. These findings are consistent with those uncovered by Rudman and Glick (2001) which indicated that in order to be perceived as hireable female applicants must display agentic competence and communality. Moreover, previous investigations of penalties for success have confirmed that negative personalizations, like those associated with the perceived communality deficit, can have real and detrimental effects on work-related outcomes such as promotions and evaluations (Heilman et al., 2004). For a summary of the literature reviewed in this section see Table 5.

**Norm Violation Summary**

Each of the theories, models, and research examinations presented above provide valuable insight as to why women so often face the glass ceiling in the workplace. The common underlying mechanism amongst each of these explanations is that women are discriminated against or penalized for enacting a norm violation. For instance, tokenism suggest that discrimination stems from a violation of numeric norms, that is women enter into professions numerically dominated by men and have, therefore, violated a norm. Heilman (lack of fit model; 1983) also recognized the entrance of women into numerically male-dominated fields as a norm violation; however, she extended her model to include violations of sex stereotypes as an explanation for pre-entry and post-entry workplace discrimination. Finally, role congruity theory (Eagly & Karau, 2002) also explains sex discrimination in the workplace as a norm violation, but according to this
Table 5

Summary of Penalties for Success & The Implied Communality Deficit Literature Reviewed.

<table>
<thead>
<tr>
<th>Authors</th>
<th>Methods</th>
<th>Findings &amp; Conclusions</th>
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<tbody>
<tr>
<td>Heilman et al. 2004</td>
<td>• Series of three experimental laboratory experiments.</td>
<td>• Study 1: In the ambiguous success condition the female target was rated as less</td>
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<td>• Study 1: All participants received a description of an upper-level</td>
<td>competent and achievement oriented than the male target.</td>
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<td>(assistant vice president) employee in a masculine gender-typed job</td>
<td>• Study 1: When success was clear there was no difference between the male and</td>
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<td>(financial planning). All participants also received descriptions of</td>
<td>female target on these traits.</td>
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<td>a man and woman. The researchers manipulated clarity of the target’s</td>
<td>• Study 1: When success was clear females were rated much less likable and much</td>
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<td>Once participants reviewed all of the information on the job and the</td>
<td>more hostile than were the male targets.</td>
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<td>target employee they were asked to rate both the male and female targets.</td>
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<td>• Study 2: Same methodology of Study 1 with the addition of the</td>
<td>• Study 2: Penalties for success were only evident amongst the female targets who</td>
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<td>manipulation of the gender-type of the job.</td>
<td>were successful in the masculine gender-typed job, not amongst the female targets</td>
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<td>• Study3: Participants were provided with information about the competence</td>
<td>in the female or neutral gender-typed jobs.</td>
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<td></td>
<td>and likability ratings of male and female targets. Participants were</td>
<td>The authors concluded that these results were evidence for the notion that social</td>
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<td>asked to use this information to make evaluative judgments about the</td>
<td>penalties and social rejection are a reaction to prescriptive gender norm violations,</td>
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<td></td>
<td>targets and personnel recommendations.</td>
<td>not success in and of itself.</td>
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<td>• Study3: Findings demonstrated that likability ratings had a detrimental</td>
<td>• Study 3: Findings demonstrated that likability ratings had a detrimental impact on</td>
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<td>impact on evaluative judgments and personnel recommendations, even</td>
<td>evaluative judgments and personnel recommendations, even when the target was</td>
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<td>when the target was highly competent.</td>
<td>highly competent.</td>
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<td>• Based on the results of these three studies, Heilman et al. concluded</td>
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<td>that when success in a masculine gender-typed job was ambiguous,</td>
<td>success in a masculine gender-typed job was ambiguous, females were perceived to</td>
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<td>females were perceived to be less competent than males; yet when</td>
<td>be less competent than males; yet when success was made explicitly clear females</td>
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<td>success was made explicitly clear females were viewed as less likable</td>
<td>were viewed as less likable and more hostile than male targets and despite actual</td>
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<td>and more hostile than male targets and despite actual performance,</td>
<td>performance, negative personal judgments can have serious and detrimental effects</td>
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<td>negative personal judgments can have serious and detrimental</td>
<td>on evaluations, pay and promotion.</td>
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Table 5: continued

Summary of Penalties for Success & The Implied Communality Deficit Literature Reviewed.

<table>
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<tr>
<th>Authors</th>
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</thead>
<tbody>
<tr>
<td>Heilman &amp; Okimoto, 2007</td>
<td>• Series of three experimental laboratory experiments</td>
<td>• Examined whether or not the penalties incurred for women who are successful in male dominated jobs are the result of supposed deficits in the communal attributes associated with female gender stereotypes.</td>
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<td></td>
<td>• Study 1: participants were asked to review information on a male and female vice president of a financial affairs department (a male gendered position).</td>
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<td>• Study 1: Participants were randomly assigned to one of three experimental conditions.</td>
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<td>• Study 1: In the communal condition, the statements introducing the targets included a paragraph about the target’s relationship with their subordinates. This paragraph included descriptors such as “caring” and “sensitive”.</td>
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<td>• Study 1: In the non-communal condition, the statements included information portraying positive relationships with subordinates however, descriptions of communality were not used.</td>
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<td>• Study 1: In the control condition, there was no information about the target’s relationship with subordinates.</td>
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<td>• Study 2: Employed a methodology similar to Study 1, but in Study 2 the researchers were manipulating ambiguity of the source of communality.</td>
<td>Study 1: Females in male jobs were rated as more interpersonally hostile and less likable than their male counterparts.</td>
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<td></td>
<td>• Study 2: The control and communal conditions were nearly identical to those used in Study 1.</td>
<td>However, these negative ratings of successful women were attenuated when information about communality was presented.</td>
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<td>• Study 2: An ambiguity condition described communality as an organization or team-based initiative.</td>
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<tr>
<td></td>
<td>• Study 2: results revealed that only when the communality traits could be unequivocally linked to the female target was the target not penalized for her success.</td>
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Table 5: continued

<table>
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<tr>
<th>Authors</th>
<th>Methods</th>
<th>Findings &amp; Conclusions</th>
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</table>
| Heilman & Okimoto, 2007 cont’d | • Study 3: Heilman and Okimoto used parental status to signify the presence of communal characteristics.  
• Much like the first two studies, participants were given descriptions of male and female managers in a male dominated job.  
• The descriptions used in Study 3 were absent any information about communal behaviors, but did include information on parental status. | • Study 3: findings revealed that successful women are rated as less likeable and more interpersonally hostile than males.  
• Study 3: Yet, consistent with the communality deficit hypothesis, when the successful women were presented as mothers the negative reactions were eradicated. |
theory, discrimination can result from a violation of either descriptive or prescriptive gender norms.

This notion of norm violations as an explanation for pre-entry discrimination, glass ceiling barriers, and disparate impact has also been successfully extended to the research on backlash effects (Rudman, 1998) and penalties for success (Heilman et al., 2004). Results in each of these areas has demonstrated that females who are perceived to violate the gender norms associated with their sex are penalized and discriminated against. This discrimination has even been found to occur when the target females are successful at their jobs and are undoubtedly, very competent individuals (Heilman, et al., 2004; Rudman, 1998; Rudman & Glick; 2001).

Presently, much of the research support cited in favor of the norm violation explanations for workplace discrimination deal with females in male-dominated or masculine gender-typed professions. However, none of the original authors (i.e., Kanter, 1977a, Heilman, 1983; Eagly & Karau, 2002) explicitly limit their theories or hypotheses to women working in a man’s job. In fact, recall that Kanter (1977b) was quoted as stating that all of her statements regarding token status were applicable to male tokens. Additionally, Eagly and Karau note that the precepts of role congruity theory should apply to men as well. These authors stated that the “role incongruity principle allows for prejudice against male leaders, to the extent that there exist leader roles whose descriptive and injunctive content is predominantly feminine.” (p. 576). However, it is a premise of this paper that theories and models that explain workplace biases terms of numeric rarity, norm violations, lack of fit or role incongruence are insufficient in that they do not
necessarily apply to males in occupations dominated by women or characterized by communal or feminine job tasks.

*The Problem of the Glass Escalator*

The major similarity amongst each of the theories, models and studies reviewed above is that women are penalized or discriminated against because they are committing a violation of norms. In other words, they are either entering into a “man’s job” or they are acting more in line with male-gendered stereotypes (i.e., competitive, aggressive) than with female-gendered stereotypes (i.e., nurturing, sympathetic). If these sorts of reasoning do indeed explain the underlying mechanisms involved when women face the glass ceiling or are penalized for success in sex-typed jobs then the same justification should hold for males in feminine gender-typed professions. That is, males who work in stereotypically female professions such as nursing or elementary education should be subjected to similar biases, according to the explanations offered above. Indeed, males working in careers commonly thought of as “female jobs” should also be perceived to “not fit in” based on the female gendered stereotypes that are associated with these jobs. This lack of fit should then lead to similar types of bias and penalization that face women in “male jobs”. However, research on males working in female-dominated professions has shown that males are typically not subjected to such biases, but instead are promoted above and beyond their female counterparts and often at much faster rates. Furthermore, the glass ceiling is used almost exclusively to describe the barriers faced by *women* in the workplace.
In the early 1990s, Christine Williams (1992) examined the under-representation of men “in four predominantly female occupations - nursing, librarianship, elementary school teaching and social work.” (p. 253). She conducted in-depth interviews with 76 men and 23 from the aforementioned professions. The purpose of her investigation was to uncover the degree to which men who work in these occupations face workplace disadvantages due to discrimination. Williams cited that according to token theory (Kanter, 1977a, 1977b), males working in the four areas of interest should, theoretically, be discriminated against. Williams also recognized that there were critics of the gender neutrality of token theory (e.g., Zimmer, 1988) who argued that the effects of sexism outweigh the effects of tokenism, and therefore males working in female-dominated jobs would not be subjected to such biases.

Throughout the course of her investigation, Williams (1992) analyzed the interview data for emerging themes and discovered that both men and women who work in non-traditional jobs were discriminated against. However, despite the fact that both men and women were subjected to discrimination the results revealed the type of discrimination and the consequences of such were much different for men than for women. The biggest difference encountered between men and women in non-traditional jobs was that women faced discrimination from within the occupation and workplace. Men on the other hand, typically only faced criticism from those outside the occupation. Such differences are likely to have very different consequences as well. First of all, men need not fear the influence of outside opinion on their job status, promotion, tenure, etc. However, because women are subjected to the prejudice within the workplace it can have
real and detrimental effects to their career. Moreover, Williams’ interviews of both males and females in the female-dominated occupations revealed a consensus that males in these occupations are disproportionately advantaged in selection and promotion decisions.

Although this influential paper by Williams (1992) was the first to give a name to the glass escalator phenomenon, it was certainly not the first investigation of its kind. Several years early, sociologists Floge and Merrill (1986) also investigated male nurses and what, if any, impact their token status had on their work. These researchers spent 540 hours observing hospital personnel at two Northwestern hospitals. Once these observations were completed interviews were also conducted with 44 hospital employees, including token male nurses and token female physicians. Much like Williams, these investigators found that male nurses enjoyed many advantages and benefits beyond their female coworkers. The advantages noted by the researchers included; more association and egalitarian interactions with physicians, higher levels of trust from physicians, greater chances for promotion, greater perceived competence, more responsibilities, as well as more leadership roles.

In another female-dominated medical field, medical technology, similar results were uncovered by Blau and Tatum (2000). These researchers utilized data from a larger, four-year longitudinal study of medical technologists (MTs). Survey data were collected from 303 female and 101 male MTs on demographics, job satisfaction, job tasks, organizational support, wages, work ethic, withdraw, and gender discrimination. Contrary to their expectations, these researchers discovered that female medical technologists
(MTs) expressed greater perceived gender discrimination when compared to the male MTs. Specifically, the findings indicated that male MTs were perceived to obtain more organizational support than female MTs. Male MTs, as compared to female MTs, also appeared to be given tasks of higher complexity.

The glass escalator has also been identified in other female-dominated occupations. For instance, shortly after William’s (1992) initial discussion of the glass escalator for male nurses Allan (1993) published a chapter about male teachers riding the glass escalator. Similar findings for male teachers were also reported in a more current investigation (Cognard-Black, 2004). In this article, the author argues that Kanter’s (1977a, 1977b) theory of tokenism is not entirely applicable to men, because even when they are a minority in the workplace, men are still dominant in society. To test this assertion, survey and demographic data from 5,734 male elementary and secondary school teachers was examined. Cognard-Black’s findings supported the argument that males in the female-dominated profession of teaching were not suffering the disadvantages of token status. Instead, these male teachers were more likely than their female colleagues to be promoted to administrative positions. The existence of the glass escalator in the teaching profession is further substantiated when considering the fact that although males only comprise 32.1% of public elementary and secondary school teachers, they make up nearly half (49.7%) of the administrative posts (i.e., principals and vice principals; NCES, 2007).

The glass escalator also appears to be present among another female dominated/gendered profession: that of librarian. Compared to the professions discussed
above, males are an even rarer minority amongst librarians. In 2006, only 15.8% of all librarians were males, yet 47% of library directors (public & academic) were males (DPEAFLCIO, 2008).

**Summary of Male Norm Violations**

The existence and pervasiveness of gender bias on the job, and particularly the glass escalator phenomenon, is not without ambiguity. Although several studies have indeed found evidence for the existence of the glass escalator (See Table 6 for a summary of this literature), there are arguments to the contrary as well. For instance, Snyder and Green (2008) argued that male nurses may earn more because of preferential treatment in recruit and hiring practices, not because they are disproportionately promoted to higher level positions. Furthermore, they contended that the “bottom-heavy [i.e., hierarchical] structure of most occupations” limits the rise to the top for both men and women (p. 271). In another publication, Burtt (1998) declares that “Male Nurses Still Face Bias” and recounts anecdotal evidence of several male nurses who have claimed to be the subject of sex discrimination based on the gender-typing of their job.

Despite these reports that males in feminine gender-typed jobs are not riding the glass escalator or that male norm violators may discriminated against as well, the majority of research and job statistics clearly indicate that males are disproportionately favored in terms of higher-level positions (e.g., Cognard-Black, 2004), work assignments (e.g., Blau & Tatum, 2000) and even in interactions with colleagues (e.g., Floge & Merrill, 1986). Such reports, however, are contrary to the popular norm violations theories and models that have long been used to explain workplace discrimination.
### Table 6

**Summary of Glass Escalator Literature Reviewed.**

<table>
<thead>
<tr>
<th>Authors</th>
<th>Methods</th>
<th>Findings &amp; Conclusions</th>
</tr>
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| Williams (1992) | • Sociological investigation of males in four predominately female careers; librarians, nurses, elementary school teachers, and social workers.  
• Conducted in-depth interviews with 76 men and 23 women from within the four occupations listed above.  
• Sampling was based on Strauss’s (1987) concept of theoretical sampling in which participants are purposively selected to capture a wide variety experiences.  
• Williams interviewed practitioners in every specialty, oversampling those employed in the most gender atypical areas (e.g., male kindergarten teachers).  
• Participants were selected from throughout occupational hierarchies (i.e. students to administrators).  
• Data were analyzed using Strauss’s coding technique: Read each interview transcript several times and organized the information based on emergent categories. | • Discovered that both men and women who work in non-traditional jobs were discriminated against.  
• The type of discrimination and the consequences of such were much different for men than for women.  
• Women faced discrimination from within the occupation and workplace.  
• Men on the other hand, typically only faced criticism from those outside the occupation.  
• Williams concluded that such differences are likely to have very different consequences such that men need not fear the influence of outside opinion on their job status, promotion, tenure, etc.  
• Women, however, are subjected to the prejudice within the workplace that can have real and detrimental effects to their career.  
• Williams’ interviews of both males and females in the female dominated occupations revealed a consensus that males in these occupations are disproportionately advantaged in selection and promotion decisions. |
| Floge & Merrill (1986) | • Observed and interviewed medical personnel from two Northwestern hospitals.  
• Investigated male nurses and female doctors to determine what, if any, impact their token status had on their work | • Found that male nurses enjoyed many advantages and benefits beyond their female coworkers including; more association and egalitarian interactions with physicians, higher levels of trust from physicians, greater chances for promotion, greater perceived competence, more responsibilities, as well as more leadership roles. |
| Blau & Tatum (2000) | • Data were collected from surveys obtained during a larger four-year longitudinal study of medical technologists.  
• A total of 303 female and 101 male respondents provided data at each of the four time points.  
• Participants provided information on demographics, job satisfaction, job tasks, organizational support, wages, work ethic, withdraw, and gender discrimination. | • Discovered that female medical technologists (MTs) expressed greater perceived gender discrimination when compared to the male MTs.  
• Findings indicated that male MTs were perceived to obtain more organizational support than female MTs.  
• Male MTs, as compared to female MTs, also appeared to be given tasks of higher complexity. |
Table 6: continued

Summary of Glass Escalator Literature Reviewed.

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| Cognard-Black    | • Hypotheses about male elementary and secondary school teachers were tested using archival data from the Teacher Survey (1990-1991), Teacher Followup Survey (1991-1992) and selected sections of the Schools and Staffing Survey (U.S. Department of Education, 1994). These surveys provided data points for 53,347 teachers from both the private and public education sectors. | • Found that males in the female dominated profession of teaching were not suffering the disadvantages of token status.  
• Instead, these male teachers were more likely than their female colleagues to be promoted to administrative positions. |
However, it is a premise of this paper that theories and models that explain workplace biases terms of numeric rarity, norm violations, lack of fit or role incongruence are insufficient in that they do not necessarily apply to males in occupations dominated by women or characterized by communal or feminine job tasks.

Clearly, the evidence for the glass escalator phenomenon stands in stark contrast to theories and hypotheses that suggest that any lack of congruity, lack of fit or norm violation is responsible for backlash against individuals who pursue out-of-role careers (i.e., male nurses or female managers). What then, is responsible for the discrepancy between the outcomes for male and female norm violators? Recall from earlier that Heilman and Okimoto (2007) were able to demonstrate that female targets who were successful in masculine gender-typed jobs were not only punished based on the implicit assumption that they possessed agentic, masculine traits, but also because they were perceived to be deficient in communal, feminine attributes. Heilman and Okimoto dubbed this the implied communality deficit.

*An Implied Communality Surplus?*

If it is indeed the possession of gender atypical traits and a perceived deficiency in gender typical traits, which potentially leads to glass ceiling barriers, negative interpersonal characterizations and other forms of discrimination for women in the workplace, can we assume that male norm violators may not be subjected to similar forms of discrimination because they are not seen as deficient? Certainly, it is apparent that males who work in areas of nursing, elementary education, etc. are violating gender norms, but there does not appear to be an explicit assumption that men who work in these
fields are somehow deficient in agentic traits. If that were the case, we would not expect to see the patterns reviewed earlier where male minorities comprise the majority of administrative posts (Cognard-Black, 2004), are given preferential treatment (Williams, 1992), obtain greater organizational support (Blau & Tatum, 2000) and so on.

Instead, we find, in most cases, that males are not repressed or penalized for their violations, but instead rewarded and promoted above and beyond their female counterparts. Why are males not viewed as deficient in agentic, masculine traits and punished accordingly? One potential explanation is that, unlike females, males are perceived to possess more desirable characteristics. That is, not only do males who work in female jobs possess all of the requisite characteristics associated with male stereotypes, but in addition they possess the positive attributes of caring, sensitivity, nurturance, and so on associated with female jobs such as nursing, elementary teaching or social work. Thus, although females who are successful in male gender-jobs were deemed deficient, males who work in female-dominated or gender-typed jobs may be thought to have a surplus of positively valenced attributes. Accordingly, the present investigation seeks to determine if, indeed, males who work in female-dominated or gender-typed jobs are perceived to possess a communality surplus. An examination of this sort would serve as an important step in exploring differences in organizational reactions to male and female norm violators.

Balancing the Paradigm

As is evident from the contrast between the findings and conclusions of the male norm violation research and female norm violation research there is an important,
scientific responsibility to examining a potential explanation from all possible angles. Such is a goal of the current study. Although it has been speculated that norm violation hypotheses are generalizable to males in female-dominated or feminine gender-typed jobs (Kanter, 1977a, 1977b; Eagly & Karau, 2002), there is little, if any, experimental research to support these claims. In fact, some of the studies summarized throughout this manuscript only include an analysis of female norm violators (e.g. Heilman & Hayes, 2005; Spangler, Gordon & Pipkin, 1978). In other cases, when male norm violators are included in the examinations, the results are often glossed over or ignored altogether. For instance, recall that Ritter and Yoder (2004) discovered a significant dominant member (male, female) by task (male, female) interaction, yet post hoc analyses were only conducted for dominant females: “To probe the dominant member by task interaction within mixed-sex groups the hypothesized cells of interest involved the conditions in which the woman was dominant…” (p.191).

For those studies that did conduct follow-up analyses on all cells, including male targets, the effects are not entirely supportive, or in some cases directly contradictory to norm violation explanations. In Heilman’s research (Heilman et al., 2004), for example, it was reported within the results section that there was not a statistically significant difference in likability ratings between males and females in feminine gender-typed jobs. Heilman et al. dismissed the findings as marginal. However, if a lack-of-fit was truly the motivator for penalizing norm violators, one would expect females in the feminine gender-typed job to be perceived as far more (i.e. statistically significant) likable than
their male counterparts. Other more, direct examples of conflicting evidence include Crocker and McGraw (1984) and Rudman and Glick (2001 & 1999).

Recall from the earlier review, that Crocker and McGraw (1984) noted that their findings were generally consistent with Kanter’s tokenism theory, but only in regards to the female tokens. In fact, the male tokens were described as having “dramatically different” (p.366) outcomes when compared to the negative effects encountered by female tokens. Rudman and Glick (1999 & 2001) reported that, regardless of the job description (feminine or masculine), agentic males were viewed as more socially skilled and more hirable when compared to agentic females. Results such as these are inconsistent with the tokenism, lack of fit, or role congruity norm violation hypotheses.

Furthermore, the sociological research studies that have directly investigated males in female-dominated or feminine gender-typed jobs have also reported findings quite contrary to those predicted by norm violation hypotheses. Recall that much of this research has demonstrated that male norm violators are often promoted, or otherwise rewarded, more often than their norm abiding, female peers (e.g. Cognard-Black, 2004; Blau & Tatum, 2002; Williams, 1992). Most of the sociological findings however, are based on case studies, archival data, or anecdotal information. Thus, the current study seeks to employ an experimental research design to bridge the gap in the literature between the glass ceiling and the glass escalator by replicating and extending the previous research on norm violations to emphasize males in female-dominated professions.
Overview & Hypotheses

The current study seeks to expand our knowledge of gender biases in the workplace, including the glass escalator, by extending the work of previous norm violation research (i.e., tokenism, lack of fit, role congruity theory) to include males who work in female-dominated or feminine gender-typed jobs. An investigation of this kind serves not only to provide a balanced examination of the norm violation research, but should also aid in demonstrating whether males in female-dominated or feminine gender-typed jobs are penalized or discriminated against as would be predicted by the lack of fit hypothesis (Heilman, 1985), theories of tokenism (Kanter, 1977a, 1977b) or role congruity (Eagly & Karau, 2002). Instead, it is the premise of the current investigation that males in female professions will be viewed more favorably than their female counterparts, as suggested by the glass escalator findings (Williams, 1992). If, indeed, the current investigation provides evidence of the glass escalator for male norm violators, these findings would corroborate Zimmer’s (1988) claims by indicating that theories and models that were developed to explain discrimination for both male and female norm violators are potentially insufficient such that they do not apply to male norm violators.

To achieve these research objectives, one goal of the present study was to modify and extend the work of Heilman et al. (2004). Recall that in their investigation, Heilman and colleagues examined male and female reactions to women who were successful at stereotypical male jobs. The premise of their paper was that women who were successful in these jobs were violating female gender prescriptions and would therefore be penalized. To test this hypothesis, violations of gender prescriptions were induced by
either manipulating the clarity of success for a female target working in masculine
gender-typed job (Study 1) or by manipulating the gender-typing of the job (Study 2).
Participants were then asked to rate the male and female targets on likeability,
competency and interpersonal hostility. Furthermore, to demonstrate that these variables
can indeed affect job-related outcomes, participants in a third study were asked to make
overall evaluations of the target and recommendations for salary and career opportunities
based on likability and competence ratings. Results demonstrated that females in
masculine gender-typed jobs were perceived to be very competent, but also as less likable
and more hostile than were males in the masculine gender-typed condition and females in
the feminine gender-typed condition (i.e., non-norm violators). In the third study of this
investigation, Heilman et al. demonstrated that the negative interpersonal
characterizations found in Study 2 can have a significant impact on participants overall
evaluation of the target and recommendations for rewards.

According to the description of the research design reported by Heilman et al.
(2004: a 2x3: male, female targets; male, female, neutral job), data was presumably
collected on the perceptions of male targets in the feminine gender-typed job. However,
these results were not presented because the nature of the study was an examination of
females in male jobs and the other groups were simply used for controls/comparisons.
The current investigation modified the research design of Heilman et al. to examine
reactions to male and female norm violators. Thus, unlike the research of Heilman and
colleagues, the current study provides additional emphasis on the examination of the
perceptions of males in feminine gender-typed jobs. Based on reports of the glass
escalator phenomenon, it is anticipated that, unlike the female norm violators from Heilman’s study, male norm violators will be perceived as both highly competent and likable. Support for this hypothesis would provide the first experimental evidence for the existence of the glass escalator. On the other hand, if male norm violators are in fact perceived as less competent and less likable than norm abiders or targets in the gender-neutral job type than this may serve to verify declarations that norm violation theories and models (i.e. tokenism, the lack of fit model, role congruity theory) are not sex-dependent and thereby applicable to males working in female dominated or gender-typed jobs.

Based on the work of Heilman et al. (2004) and the review of the glass escalator phenomenon (Williams, 1992) the following hypotheses were formulated:

*Hypothesis 1:* Successful women in a masculine gender-typed job will be rated as (a) less likable and (b) more interpersonally hostile than successful males and females in the feminine gender-typed job or the gender-neutral job and successful males in the masculine gender-typed job.

*Hypothesis 2:* Successful men will be rated as (a) more competent and (b) more likable and (c) less interpersonally hostile than successful females in the feminine gender-typed job and successful males and females in the masculine gender-typed job and gender-neutral job.

A secondary goal of the current study is to examine a potential explanation as to why male norm violators might be viewed more positively than female norm violators. In a follow-up to the penalties for success articles, Heilman & Okimoto (2007) posited that penalties for success arise from a perceived deficit in the stereotypical feminine,
communal traits that is implied by their success in a masculine gender-typed job: an implied communality deficit. Results demonstrated that penalties for success were mitigated when information about communality was present. In contrast, the argument in this study is that males who work in feminine gender-typed jobs will not be viewed as deficient in their masculine, agentic traits. Instead, it is predicted that these targets will not only be perceived to possess masculine, agentic traits associated with their sex, but they will also be perceived as possessing the communal traits associated with the gendering of their job. In other words, they will be viewed as possessing an implied communality surplus.

To investigate the presence of an implied communality surplus and its potential impact on job related outcome variables, the present study will examine whether males in feminine gender-typed jobs are perceived to possess both high levels of the agentic traits associated with their sex and the communal traits associated with their job. Additionally, to determine impact of these traits, the current investigation will assess the relationship between agency and competence, communality and likability, and their association with overall evaluations and reward recommendations. Figure 2 provides a graphical representation detailing how higher levels of agency and communality may ultimately influence reward recommendations.

Based on the hypothesized implied communality surplus, and its anticipated effects, the following relationships are predicted:

*Hypothesis 3:* Males who are successful in feminine gender-typed jobs will be rated higher on both agentic traits and communality traits when compared to successful female targets working a masculine gender-typed job.
Hypothesis 4: Agency will be positively related to competence.

Hypothesis 5: Communality will be positively related to likability.

Hypothesis 6: Likability and competency will positively effect overall evaluations and reward recommendations made about both male and female employees.

Finally, Rudman and Phelan (2008) queried as to whether or not sex differences might exist in the discrimination of norm violating females. Most of the studies that examine reactions to female norm violators have concluded that males and females are equally likely to penalize counterstereotypical behavior (e.g., Heilman et al., 2004, Rudman & Glick, 2001). Again, these investigations were only examining reactions to counterstereotypical females. Perhaps these findings would differ in an examination of male norm violators. To this end, the current study included an analysis by rater sex, in order to determine any impact of rater sex on overall ratings and reward recommendations of the norm violating targets. However, because this is an exploratory analysis no specific predictions are made.
Method

Design

During this experiment each participant received a variation of the experimental paradigm utilized by Heilman et al. (2004). The experimental manipulations included target sex (male, female) and job type (feminine, masculine, or neutral). The resulting design for this investigation was a 2x3 between-subjects design. The dependent variables included ratings of likability, competence, interpersonal hostility, agency, communality, overall evaluations and salary as well as career reward recommendations.

Using the software program Research Randomizer participants were randomly assigned to one of six conditions featuring either a male or female target in one of the three job types (masculine, feminine, or gender neutral). For example, one participant might be randomly assigned to the condition featuring a female target in a masculine gender-typed job, whereas the next participant might be assigned to a male target in the gender neutral job condition.

Participants

Two hundred and twenty nine undergraduate university students from a mid-sized Midwestern university participated in the current study. Participants were recruited using the university psychology experiment participant pool. Each participant received one extra credit point toward their coursework in exchange for their time.

The average age of the participants was 19.52, with an age range of 19 to 34. One hundred thirty four (58.5%) of the participants were female. Eighty six percent of participants identified themselves as Caucasian, 7% identified themselves as Asian, 4.4%
identified themselves as Black or African-American, and 1.3% identified themselves as Hispanic or Latino.

Measures & Manipulations

Sex of target person. Every participant received information regarding a successful male or female job incumbent. Descriptions varied based on the job description, but roughly followed the format provided by Heilman et al. 2004. Information about the sex of the target was manipulated simply by the name (e.g., Andrea or James) and pronouns (e.g. she or he) provided in the description of the job incumbent.

Job type. The gender typing of the job was manipulated by the job title and job description provided in the information packets. The job titles and descriptions were based on previous studies that have already established the gendering of the job. The job titles are as follows; assistant vice president of financial affairs (masculine gender-typed; Heilman et al., 2004; Heilman & Okimoto, 2008), registered nurse in the trauma ward at a hospital (feminine gender-typed; Glick, Korin & Perreault, 1995), director of human resources, training division (gender-neutral; Heilman et al., 2004). Furthermore, additional information was provided in the job descriptions to reinforce the gender-type of the job.

Registered Nurse: James (Andrea) is a registered nurse in the trauma ward of a local hospital. James (Andrea) works directly with patients and their families. Nurses are the primary point of contact between the patient and the world of health care, both at the bedside and in out-patient settings. RNs perform frequent patient evaluations, including monitoring and tracking vital signs, assisting in
medical procedures and administering medications. James (Andrea) has good interpersonal skills and sensitivity towards the patients and their family members. In a recent hospital-wide annual performance review, James (Andrea) was evaluated highly by all reviewers.

**Assistant Vice President of Financial Affairs:** Jon (Anne) is the Assistant Vice President of Financial Affairs at his (her) organization. He (She) provides financial planning information to employees. He (She) helps inform employees about within-company benefit options through individual appointments and in-house workshops, and locates out-of-company sources that can aid them in long-term financial strategies for themselves and their families. Jon (Anne) is good with numbers and knowledgeable about banking, insurance, accounting, and bond and equity investments. In a recent company-wide performance review he (she) received consistently high praise for his (her) job performance.

**Director of Training:** Brian (Maria) supervises a unit within Human Resources that provides skills training to employees who seek to upgrade their positions within the company. Brian (Maria) informs employees about job advancement opportunities through individual appointments and in-house workshops, and refers them to professionals who can aid them in developing long-term career goals. Brian (Maria) is a good communicator and knowledgeable about job and career planning.

**Likeability.** The likability of the targets was measured using a combination of three adjective pairs (*friendly-unfriendly, nice-mean, likeable-not likeable*). Heilman et
al. (2004) utilized the single item adjective pair likable – not likable and the question “How much do you think you would like this individual?” (not at all-very much). The reported alpha value for the composite of these two items was .74. In an attempt to bolster both the reliability and content validity of the likeability scale, the question was “How much do you think you would like this individual?” dropped in favor of adding two additional adjective pairs (friendly-unfriendly, nice-mean). These items were adopted from Wiggins’ Interpersonal Adjective Scale (1979). In a recent investigation of organization behavior, Bolino & Turnley (2003) used the adjectives friendly, nice and likeable on a 5-point numeric rating scale ranging from “Very Accurate” to “Very Inaccurate” to measure likability. These authors reported an alpha value of .87 for the three-item scale. The response format was altered for the current study to maintain response set consistency. The resulting internal consistency reliability value (alpha) for the 3-item scale adapted for the current study was .86.

Competence. Ratings of perceived competence for the targets were measured using four 9-point bipolar adjective pairs (competent-incompetent, productive-unproductive, effective-ineffective, successful-unsuccessful). In recent investigations using the same/similar adjective pairs, coefficient alpha values of .81 (Heilman et al., 2004) and .90 (Parks-Stamm et al., 2008) were reported. Using data from the current sample the obtained alpha value was .78.

Interpersonal hostility. Perceived interpersonal hostility of the target was assessed by adapting six bipolar adjective pairs used in previous studies conducted by Heilman and colleagues (Heilman et al., 2004; Parks-Stamm et al., 2008). These items were rated
on a 9-point bipolar adjective scale and include abrasive-not abrasive, manipulative-not manipulative, trustworthy-not trustworthy, selfish-not selfish, and pushy-accommodating.

These items had been previously used in conjunction with two or three additional adjective pairs and had reported Cronbach’s alpha values for of .83 for an 8-item scale (Parks-Stamm et al., 2008) and .84 for a 9-item scale (Heilman et al., 2004). The items removed for the current investigation included those that were considered to overlap with the communality construct (i.e., kind-unkind) or were otherwise judged unclear (i.e., conniving- not conniving). The resulting reliability with the current sample provided a coefficient alpha value of .58.

Agency. Perceived agency of targets was assessed by combining six 9-point semantic differential scales. The adjective pairs included: dominant-submissive, assertive-not assertive, active-passive, tough-not tough, bold-timid, and strong-weak. This scale was a composite of items based on previous measurements of agentic traits (e.g., Heilman & Okimoto, 2007; Hoffman & Hurst, 1990; Bem, 1974; Spence & Helmreich, 1978). The internal consistency reliability of the unique scale created for the current study was $\alpha = .78$.

Communality. Communality perceptions of the targets were measured using a composite of six 9-point semantic differential scales. The adjective pairs comprising this scale will include: understanding-not understanding, supportive-not supportive, caring-not caring, sensitive-insensitive, sympathetic-unsympathetic, and considerate-inconsiderate. This scale was a composite of items based on previous measurements of
communal traits (e.g., Heilman & Okimoto, 2007; Hoffman & Hurst, 1990; Bem, 1974; Spence & Helmreich 1978). The internal consistency reliability of this scale was $\alpha = .84$.

**Overall Evaluation.** To obtain an overall evaluation of the targets a composite score was created based on the participant responses to the following three items:

“Overall, how would you rate this individual?” (*very low-very high*); “What do you think of this individual’s overall work performance?” (*not at all successful-very successful*); and “How would you feel about working with this person?” (*not at all pleased-very pleased*). These items were adapted from a set of four evaluative items used by Heilman et al. (2004) who reported an internal consistency alpha of .89 for the four items. Among this sample, the internal consistency reliability value was $\alpha = .74$.

**Reward Recommendations.** To obtain a reward recommendations score participant responses to the following questions were averaged into a composite score:

“To what degree would you recommend promoting this individual to a higher-level position?” (*not at all-very much*); and “To what degree would you recommend this individual for a salary increase?” (*not at all-very much*). Heilman et al. 2004 employed three similar items (coefficient $\alpha= .86$) to assess reward recommendations. The two items used in this present investigation had an internal consistency reliability value of $\alpha = .84$.

**Procedure**

Participants were told that they were taking place in a study designed to assess the underlying cognitions involved in application and promotion processes. Each participant was asked to review a brief vignette describing either a male or female target in one of the three job conditions (masculine, feminine, or gender neutral). After the participants
viewed the information regarding the target and his/her job they were asked to answer a series of questions about the target. Each packet also contained a series of questions designed to assess the participant’s reactions to the targets. Finally, a brief demographics questionnaire was included in the materials packet to establish the sex, age, and race of each participant.

Analyses

Several different analyses were used to test the hypotheses for the current investigation. First, because this study is a modified and extension of the penalties for success study conducted by Heilman et al. (2004), Hypothesis 1 is an exact replication of the penalties for success hypothesis proposed by Heilman and colleagues to examine reactions to successful females working in a masculine gender-typed job. Specifically, these authors predicted that successful women in a masculine gender-typed job would be rated as less likable and more interpersonally hostile than males in feminine gender-typed job. In order to compare the differences in reactions between female norm violators and the other targets, Heilman et al. utilized analysis of variance (ANOVA) techniques. Likewise, the current investigation also examined theses differences using ANOVA techniques. However, because of the multivariate nature of the current study multivariate analysis of variance (MANOVA) was used.

As an extension of Heilman et al.’s work (2004), the present study sought to examine reactions to male norm violators. Accordingly, it was hypothesized that successful men in a feminine gender-typed job would be rated as (a) more competent and (b) more likable and (c) less interpersonally hostile, in feminine gender-typed jobs,
masculine gender-typed jobs and neutral gender jobs. Multivariate analysis of variance techniques were used to test this hypothesis.

The remaining hypotheses of the current investigation were formulated to investigate the presence of an implied communality surplus and the potential impact on job-related outcome variables. Thus, the present study examined whether males who are successful in feminine gender-typed jobs would be rated higher on both agentic traits and communality traits when compared to successful female targets working a masculine gender-typed job (Hypotheses 3). Multivariate analysis of variance techniques were once again used to look for these differences between male and female norm violators. Additionally, to determine impact of these traits on job related outcomes, the current investigation used regression analyses to assess the relationship between agency and competence and communality and likeability (Hypotheses 4 and 5, respectively) and to test the influence of likeability and communality on overall evaluations and reward recommendations (Hypothesis 6).
Results

Data Analysis

Bivariate correlations were calculated for each of the variables assessed in the current study. These correlations are presented in Table 7. Also, reliability analyses were conducted to establish the internal consistency of each of the scales utilized in the current study. Results of these analyses are reported as alpha values on the diagonal of the correlation matrix.

To ensure successful manipulation of the independent variables, manipulation checks were conducted. The effectiveness of the job gender-type manipulation was tested by asking participants to indicate whether most people holding the job in question are males or females. This is the same manipulation check utilized by Heilman et al. (2004). Results indicated that 76% of participants believed the masculine gender-typed job was held by males, 96% of participants believed that the feminine gender-typed job was held by females. Appropriately, the results were mixed for the gender-neutral job, where 40% of participants indicated that the majority of job holders in this position were female. In order to verify that the use of the sex identified names and sex appropriate pronouns were sufficient in manipulating the sex of the target, participants were asked to identify the sex of the participant (male or female). All participants (100%) correctly indentified the male and female targets.

Hypothesis 1

According to Hypothesis 1, it was predicted that successful women in a masculine gender-typed job would be rated as; (a) less likable and (b) more interpersonally hostile
Table 7

*Correlation Matrix (N = 229)*

<table>
<thead>
<tr>
<th></th>
<th>Participant Sex</th>
<th>Gender-type of Job</th>
<th>Target Sex</th>
<th>Likeability</th>
<th>Competence</th>
<th>Hostility</th>
<th>Agency</th>
<th>Communality</th>
<th>Overall Evaluation</th>
<th>Reward Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant Sex</td>
<td>--</td>
<td>.02</td>
<td>.02</td>
<td>.07</td>
<td>.04</td>
<td>-.14*</td>
<td>.03</td>
<td>.06</td>
<td>.06</td>
<td>.17*</td>
</tr>
<tr>
<td>Gender-type of Job</td>
<td>--</td>
<td>.00</td>
<td>-.02</td>
<td>.00</td>
<td>.07</td>
<td>.02</td>
<td>.01</td>
<td>-.14*</td>
<td>-.07</td>
<td></td>
</tr>
<tr>
<td>Target Sex</td>
<td>--</td>
<td>.28**</td>
<td>.10</td>
<td>-.16*</td>
<td>.02</td>
<td>.16*</td>
<td>.07</td>
<td>.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likeability</td>
<td>.86</td>
<td>.59**</td>
<td>-.62**</td>
<td>.39**</td>
<td>.81**</td>
<td>.47**</td>
<td>.33**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence</td>
<td>.78</td>
<td>-.58**</td>
<td>.46**</td>
<td>.62**</td>
<td>.48**</td>
<td>.41**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hostility</td>
<td>.58</td>
<td>-.24**</td>
<td>-.66**</td>
<td>-.39**</td>
<td>-.33**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agency</td>
<td>.78</td>
<td>.34**</td>
<td>.36**</td>
<td>.26**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communality</td>
<td>.84</td>
<td>.50**</td>
<td>.30**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Evaluation</td>
<td>--</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reward Recommendation</td>
<td>--</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Scale reliabilities on diagonal where applicable
*p < .05
**p < .01
than all other comparison groups (males and females in the feminine gender-typed job, males and females in the gender-neutral job and males in the masculine gender-typed job). To test this prediction a 2x3 MANOVA was conducted crossing sex of target and gender-type of job on the continuous variables interpersonal hostility and likability. Results revealed a significant main effect of job gender-type $F(4,444) = 11.86$, Wilks’ Lambda = .82, $p < .001$, and a significant interaction between sex of target and job gender-type, $F(4,444) = 2.89$, Wilks’ Lambda = .95, $p < .05$. See Table 8 for the complete results of this analysis.

Table 8

Multivariate Results for Hypothesis 1

<table>
<thead>
<tr>
<th>Source</th>
<th>Wilks’ Lambda</th>
<th>$F$</th>
<th>df hypothesis</th>
<th>df error</th>
<th>$p$</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex of Target</td>
<td>.99</td>
<td>.79</td>
<td>2</td>
<td>222</td>
<td>.46</td>
<td>.01</td>
</tr>
<tr>
<td>Job Gender Type</td>
<td>.82</td>
<td>11.86</td>
<td>4</td>
<td>444</td>
<td>.00</td>
<td>.10</td>
</tr>
<tr>
<td>Sex of Target* Job Gender-Type</td>
<td>.95</td>
<td>2.88</td>
<td>4</td>
<td>444</td>
<td>.02</td>
<td>.03</td>
</tr>
</tbody>
</table>

Next, univariate analyses were conducted to further investigate the influence of job gender-type and the interaction of job gender-type and sex of target on the dependent variables likability and interpersonal hostility. The findings from these tests can be found in Table 9. At the univariate level, the interaction of job gender-type and sex of target did not have a significant effect on either interpersonal hostility, $F(2,223) = 1.81$, $p > .05$ or likability $F(2,223) = 1.90$, $p > .05$. 
Table 9

Univariate ANOVA Results for Hypotheses 1 & 2

<table>
<thead>
<tr>
<th>Source</th>
<th>DV</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>Partial η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex of Target</td>
<td>Hostility</td>
<td>1.84</td>
<td>1</td>
<td>1.84</td>
<td>1.54</td>
<td>.25</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>Likability</td>
<td>.49</td>
<td>1</td>
<td>.49</td>
<td>.31</td>
<td>.58</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Competence</td>
<td>.05</td>
<td>1</td>
<td>.05</td>
<td>.04</td>
<td>.85</td>
<td>.00</td>
</tr>
<tr>
<td>Job Gender-Type</td>
<td>Hostility</td>
<td>22.09</td>
<td>2</td>
<td>11.04</td>
<td>9.26</td>
<td>.00</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>Likability</td>
<td>79.98</td>
<td>2</td>
<td>39.99</td>
<td>24.85</td>
<td>.00</td>
<td>.18</td>
</tr>
<tr>
<td></td>
<td>Competence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex of Target* Job Gender-Type</td>
<td>Hostility</td>
<td>4.32</td>
<td>2</td>
<td>2.16</td>
<td>1.81</td>
<td>.17</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>Likability</td>
<td>6.05</td>
<td>2</td>
<td>3.03</td>
<td>1.88</td>
<td>.16</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>Competence</td>
<td>4.06</td>
<td>2</td>
<td>2.03</td>
<td>1.60</td>
<td>.21</td>
<td>.01</td>
</tr>
<tr>
<td>Error</td>
<td>Hostility</td>
<td>265.90</td>
<td>223</td>
<td>1.19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Likability</td>
<td>358.89</td>
<td>223</td>
<td>1.61</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Competence</td>
<td>283.82</td>
<td>223</td>
<td>39.99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These mixed multivariate and univariate results make interpreting the significant multivariate analysis all the more challenging. Typically, it is the univariate results that are used to interpret significant multivariate analyses. This is the common, and oft preferred, methodology given some of the difficulties of dissecting multivariate relationships (Tabachnick & Fidell, 2001), such as interpreting graphical representations of multivariate relationships in three-dimensional space. Thus, in the absence of significant univariate and corresponding follow-up analyses, an examination of the plotted marginal means was used to disentangle the effect of the interaction of sex of target and job gender-type on likability and hostility.²
Table 10

Tukey's Comparisons for Gender-type of Job on Hostility, Likability, and Communality

<table>
<thead>
<tr>
<th>Comparisons</th>
<th>Mean Difference</th>
<th>Std. Error</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hostility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male vs. Female</td>
<td>.76***</td>
<td>.177</td>
<td>.34</td>
<td>1.17</td>
</tr>
<tr>
<td>Male vs. Neutral</td>
<td>.46*</td>
<td>.18</td>
<td>.04</td>
<td>.89</td>
</tr>
<tr>
<td>Female vs. Neutral</td>
<td>-.29</td>
<td>.18</td>
<td>-.71</td>
<td>.12</td>
</tr>
<tr>
<td>Likability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male vs. Female</td>
<td>-1.41***</td>
<td>.21</td>
<td>-1.89</td>
<td>-.92</td>
</tr>
<tr>
<td>Male vs. Neutral</td>
<td>-1.99***</td>
<td>.21</td>
<td>-1.48</td>
<td>-.49</td>
</tr>
<tr>
<td>Female vs. Neutral</td>
<td>.42</td>
<td>.20</td>
<td>-.0581</td>
<td>.9032</td>
</tr>
<tr>
<td>Communality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male vs. Female</td>
<td>-1.36***</td>
<td>.19</td>
<td>-1.82</td>
<td>-.91</td>
</tr>
<tr>
<td>Male vs. Neutral</td>
<td>-.52*</td>
<td>.20</td>
<td>-.98</td>
<td>-.06</td>
</tr>
<tr>
<td>Female vs. Neutral</td>
<td>.85***</td>
<td>.19</td>
<td>.39</td>
<td>1.30</td>
</tr>
</tbody>
</table>

* p < .05  
***p < .001

Consistent with the premise of this paper, and much of the research cited therein, female norm violators were rated the most negatively (i.e. lowest likability ratings, and highest interpersonal hostility ratings). On the other hand, male norm violators were rated more positively than male norm-abiders, but more negatively than female norm-abiders on both likability and hostility. This finding is inconsistent with the hypotheses of the current study. See Figures 3 and 4 for a graph of the plotted means of hostility and likability for the male and female targets in each of the three manipulated job types.

Hypothesis 2

For the main effect of job gender-type, results revealed significance for both interpersonal hostility, F(2,223) = 9.26, p < .05 and likability, F(2,223) = 24.85, p < .05. Tukey’s post-hoc tests were used to further dissect the results of the univariate analyses. Findings from these analyses revealed that for hostility, there was a significant difference
between male ($M = 3.69$) and feminine gender-typed jobs ($M = 2.94$) and male and gender-neutral typed jobs ($M = 3.23$). In each of these cases, the masculine gender-typed job was rated higher on hostility indicating that masculine gender-typed job holders are characterized as more hostile than both female and gender-neutral typed jobs.

Table 11

Means and Standard Deviations for Significant Dependent Variables by Gender-type of Job

<table>
<thead>
<tr>
<th>Gender-type of Job</th>
<th>Dependent Measure</th>
<th>Hostility</th>
<th>Likability</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>$M$</td>
<td>3.69</td>
<td>6.70</td>
<td>6.51</td>
</tr>
<tr>
<td></td>
<td>$SD$</td>
<td>1.07</td>
<td>1.46</td>
<td>1.22</td>
</tr>
<tr>
<td>Female</td>
<td>$M$</td>
<td>2.94</td>
<td>8.11</td>
<td>7.88</td>
</tr>
<tr>
<td></td>
<td>$SD$</td>
<td>1.19</td>
<td>1.09</td>
<td>1.19</td>
</tr>
<tr>
<td>Gender Neutral</td>
<td>$M$</td>
<td>3.23</td>
<td>7.68</td>
<td>7.03</td>
</tr>
<tr>
<td></td>
<td>$SD$</td>
<td>1.02</td>
<td>1.25</td>
<td>1.18</td>
</tr>
</tbody>
</table>

For likability, there was a significant difference between male ($M = 6.70$) and feminine gender-typed jobs ($M = 8.11$) and male and gender-neutral typed ($M = 7.68$). An examination of the means revealed that the masculine gender-typed job was rated significantly lower on likability for both of these comparisons indicating that feminine gender-typed job holders and gender-neutral job holders are viewed as more likable than masculine gender-typed jobs. Results of the post-hoc analyses and the means and standard deviations for job gender-type across hostility and likability can be seen in Tables 10 and 11 respectively.
According to the second hypothesis, successful men in a feminine gender-typed job will be rated as; (a) more competent and (b) more likable and (c) less interpersonally hostile than all other comparison groups (females in the feminine gender-typed job, males and females in the masculine gender-typed job, and males and females in the neutral gender job). To test this hypothesis, a 2x3 MANOVA was conducted crossing sex of target and gender-type of job on the continuous variables interpersonal hostility, competence, and likability. Results revealed a significant main effect of job gender-type, $F(6,442) = 8.96$, Wilks’ Lambda = .80, $p < .05$, and a significant interaction between sex of target and job gender-type, $F(6,442) = 2.23$, Wilks’ Lambda = .94, $p < .05$. These results are available in Table 12.

Follow-up univariate analyses were conducted on each of the dependent variables. For the interaction of sex of target and job gender-type, each of the univariate analyses were non-significant (See Table 9). Although non-significant at the univariate level, an examination of the plotted interactions for competence reveals that, once again, female norm violators received the least favorable ratings. Additionally, male norm-violators were rated more positively than female norm-violators, which is concordant with

### Table 12

<table>
<thead>
<tr>
<th>Source</th>
<th>Wilks’ Lambda</th>
<th>$F$</th>
<th>$df_{hypothesis}$</th>
<th>$df_{error}$</th>
<th>$p$</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex of Target</td>
<td>.99</td>
<td>.62</td>
<td>3</td>
<td>221</td>
<td>.59</td>
<td>.01</td>
</tr>
<tr>
<td>Job Gender Type</td>
<td>.80</td>
<td>8.96</td>
<td>6</td>
<td>442</td>
<td>.00</td>
<td>.11</td>
</tr>
<tr>
<td>Sex of Target* Job Gender-Type</td>
<td>.94</td>
<td>2.23</td>
<td>6</td>
<td>442</td>
<td>.04</td>
<td>.03</td>
</tr>
</tbody>
</table>
Hypothesis 2. However; male norm violators were not rated more positively than all other comparison groups, as was suggested this hypothesis. Interestingly, if one were to rank-order favorability based on the means scores of likability, interpersonal hostility, and competence female norm abiders were rated the most favorably, followed next by male norm-violators, then male norm-abiders with female norm violators viewed the least favorably. Mean scores for targets in the gender neutral job-type were typically settled centrally amongst the other values. See Figures 3, 4, and 5 for the graphs of the interactions of sex of target and job gender-type on likability, competence, and interpersonal hostility, respectively.

Figure 3. Graph of the estimated marginal means for likability.

For the main effect of job gender-type, results revealed significance for hostility and likability, but not for competence. Tukey’s post-hoc analyses were used to further
dissect the results of the univariate analyses. The findings from these analyses are identical to those from Hypothesis 1, such that the masculine gender-typed job was characterized as more hostile than both female and gender-neutral typed jobs and the least likable when compared to the feminine gender-typed and gender-neutral jobs. The post-hoc comparisons of each of the job types on hostility and likability can be seen in Table 10. The corresponding means and standard deviations can be found in Table 11.

Figure 4. Graph of the estimated marginal means for competence.

Exploratory Analysis of Hypothesis 2

Because of the relevance of sex and gender to the current investigation, an exploratory analysis was conducted, in which sex of the rater was added into the model as an additional independent variable. Similar to the results for the original hypotheses, a
significant main effect of job gender-type was discovered for both male and female raters. Once again, there was also a significant interaction between the gender-type of the job and the sex of target. Finally, the three-way interaction of job gender-type, sex of target and sex of rater was non-significant, $F(4,430) = 2.11$, Wilks’ Lambda = .94, $p > .05$. The results of this exploratory analysis suggest that the addition of sex of rater to the model had no significant bearing on the results.

*Figure 5.* Graph of the estimated marginal means for hostility.

**Hypothesis 3**

To evaluate the hypothesis that males who are successful in feminine gender-typed jobs will be rated higher on both agentic traits and communality traits when
compared to successful female targets working a masculine gender-typed job, a 2x3 MANOVA was conducted crossing sex of target and gender-type of job on the continuous variables agency and competency. Results revealed a significant main effect of job gender-type $F(4,444) = 15.64$, Wilks’ Lambda = .77, $p < .05$. Contrary to the hypothesis however, the interaction of sex of target and job gender-type was non-significant, $F(4,444) = 1.20$, Wilks’ Lambda = .98, $p > .05$. Table 13 contains all of the results from this analysis. Likewise, the plotted interactional effects can be seen in Figures 6 and 7.

Table 13

*Multivariate Results for Hypothesis 3*

<table>
<thead>
<tr>
<th>Source</th>
<th>Wilks’ Lambda</th>
<th>$F$</th>
<th>df hypothesis</th>
<th>df error</th>
<th>$p$</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex of Target</td>
<td>1.00</td>
<td>.05</td>
<td>2</td>
<td>222</td>
<td>.95</td>
<td>.00</td>
</tr>
<tr>
<td>Job Gender Type</td>
<td>.77</td>
<td>15.61</td>
<td>4</td>
<td>444</td>
<td>.00</td>
<td>.12</td>
</tr>
<tr>
<td>Sex of Target* Job Gender-Type</td>
<td>.98</td>
<td>1.19</td>
<td>4</td>
<td>444</td>
<td>.31</td>
<td>.01</td>
</tr>
</tbody>
</table>

Separate univariate analysis of agency and communality were conducted to determine the affect of job gender-type on each of these variables. The results of these analyses, as reported in Table 14, revealed significance only for the communality variable, $F(2,223) = 25.36$, $p > .001$. Post-hoc analyses demonstrated significant differences at the $p < .05$ level among each of the job gender-types. Specifically, masculine gender-typed jobs were significantly different from gender-neutral jobs and female jobs and gender-neutral jobs were significantly different from female jobs. As could be anticipated, male jobs were viewed as the least communal ($M = 6.51$), followed by gender-neutral jobs ($M = 7.03$) and female jobs were seen as the most communal.
(M = 7.90). Results from the post-hoc analyses can be viewed in Table 10, whereas the means and standard deviations of communality for each of the job gender-types can be seen in Table 11.

Table 14

Univariate ANOVA Results for Hypothesis 3

<table>
<thead>
<tr>
<th>Source</th>
<th>DV</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex of Target</td>
<td>Agency</td>
<td>.08</td>
<td>1</td>
<td>.01</td>
<td>.06</td>
<td>.81</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Communality</td>
<td>.01</td>
<td>1</td>
<td>.01</td>
<td>.94</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Job Gender-Type</td>
<td>Agency</td>
<td>1.54</td>
<td>2</td>
<td>.71</td>
<td>.56</td>
<td>.57</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>Communality</td>
<td>73.21</td>
<td>2</td>
<td>36.60</td>
<td>25.36</td>
<td>.00</td>
<td>.19</td>
</tr>
<tr>
<td>Sex of Target* Job Gender-Type</td>
<td>Agency</td>
<td>5.71</td>
<td>2</td>
<td>2.85</td>
<td>2.08</td>
<td>.13</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>Communality</td>
<td>1.23</td>
<td>2</td>
<td>.62</td>
<td>.43</td>
<td>.65</td>
<td>.00</td>
</tr>
<tr>
<td>Error</td>
<td>Agency</td>
<td>305.82</td>
<td>223</td>
<td>1.37</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communality</td>
<td>321.86</td>
<td>223</td>
<td>1.44</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Exploratory Analysis of Hypothesis 3

Similarly to Hypotheses 1 and 2 above, an exploratory analysis of Hypothesis 3 was conducted in which sex of the rater was added to the model to determine if a three-way interaction between sex of rater, sex of target and gender-type of job would produce a significant effect on perceived communality and agency of the male and female targets. The results of this analysis however, were non-significant $F(4,432) = 2.18$, Wilks’ Lambda = .96, $p > .05$. However, there was a significant main effect of job-type, $F(4,432) = 15.22$, Wilks’ Lambda = .77, $p < .001$, indicating that the addition of sex of rater to the model did not significantly impact the results.
Recall that Hypotheses 4 and 5 stated that agency would be positively related to competence and communality would be positively related to likability, respectively. Each of these analyses was evaluated using simple correlation analyses. The results demonstrated full support for each of these hypotheses, such that agency was significantly, positively related to competence ($r = .25, p < .05$) and communality was significantly, positively related to likability ($r = .80, p < .05$). See Table 7 for the inter-item correlations of all variables.

Figure 6. Graph of the estimated marginal means for agency.
Hypotheses 6 & 7

This final set of hypotheses was analyzed using multiple regression techniques. Specifically, to test for Hypothesis 6, (which predicted likability and competency would have a significant, positive effect on overall evaluation and hostility would have a significant, negative effect on overall evaluations) overall evaluation was regressed on hostility, competence, and likability. In accordance with Hypothesis 6, the omnibus test was statistically significant, $F(3,225) = 30.46, \ p < .05, \ R^2 = .19$. However, an examination of the individual predictors revealed that only competence ($\beta = .30, \ p < .05$) and likability ($\beta = .26, \ p < .05$) were significantly related to overall evaluations, where
higher levels of perceived competence and greater likability are predictive of higher overall evaluations. Although the relationship is in the predicted direction, hostility ($\beta = -0.07$) was not a significant predictor of overall evaluations. Thus, these findings are only partially supportive of Hypothesis 6.

Finally, to test the hypothesis that overall evaluations would have a significant, positive effect on reward recommendations made about both male and female employees, reward recommendations were regressed on overall evaluations. The findings from this analysis were supportive of Hypothesis 7. Overall evaluations were a significant predictor of reward recommendations such that higher overall evaluations ($\beta = .55$) were positively related to reward recommendations, $F(3,225) = 95.72, p < .05, R^2 = .30$. See Table 15 for a summary of all hypotheses and their results.
1. Successful women in a male gender-typed job would be rated as; (a) less likable and (b) more interpersonally hostile than all other comparison groups (males and females in the female gender-typed job, males and females in the gender-neutral job and males in the male gender-typed job).

   **Results**
   Partially supported. Multivariate significance for the interaction of target sex and job gender type when examining all DVs. No univariate significance for this interaction amongst any of the DVs.

2. Successful men in a female gender-typed job will be rated as; (a) more competent and (b) more likable and (c) less interpersonally hostile than all other comparison groups (females in the female gender-typed job, males and females in the male gender-typed job, and males and females in the neutral gender job).

   **Results**
   Partially supported. Multivariate significance for the interaction of target sex and job gender type when examining all DVs. No univariate significance for this interaction amongst any of the DVs.

3. Males who are successful in female gender-typed jobs will be rated higher on both agentic traits and communality traits when compared to successful female targets working a male gender-typed job.

   **Results**
   Not supported.

4. Agency would be positively related to competence.

   **Results**
   Fully supported.

5. Communality would be positively related to likability.

   **Results**
   Fully supported.

6. Likability and competency would have a significant, positive effect on overall evaluation and hostility would have a significant, negative effect on overall evaluations.

   **Results**
   Partially supported.

7. Overall evaluations would have a significant, positive effect on reward recommendations made about both male and female employees.

   **Results**
   Fully supported.

### Table 15

**Summary of Hypotheses & Results**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Successful women in a male gender-typed job would be rated as; (a) less likable and (b) more interpersonally hostile than all other comparison groups (males and females in the female gender-typed job, males and females in the gender-neutral job and males in the male gender-typed job).</td>
<td>Partially supported. Multivariate significance for the interaction of target sex and job gender type when examining all DVs. No univariate significance for this interaction amongst any of the DVs.</td>
</tr>
<tr>
<td>2. Successful men in a female gender-typed job will be rated as; (a) more competent and (b) more likable and (c) less interpersonally hostile than all other comparison groups (females in the female gender-typed job, males and females in the male gender-typed job, and males and females in the neutral gender job).</td>
<td>Partially supported. Multivariate significance for the interaction of target sex and job gender type when examining all DVs. No univariate significance for this interaction amongst any of the DVs.</td>
</tr>
<tr>
<td>3. Males who are successful in female gender-typed jobs will be rated higher on both agentic traits and communality traits when compared to successful female targets working a male gender-typed job</td>
<td>Not supported.</td>
</tr>
<tr>
<td>4. Agency would be positively related to competence.</td>
<td>Fully supported.</td>
</tr>
<tr>
<td>5. Communality would be positively related to likability.</td>
<td>Fully supported.</td>
</tr>
<tr>
<td>6. Likability and competency would have a significant, positive effect on overall evaluation and hostility would have a significant, negative effect on overall evaluations.</td>
<td>Partially supported.</td>
</tr>
<tr>
<td>7. Overall evaluations would have a significant, positive effect on reward recommendations made about both male and female employees.</td>
<td>Fully supported.</td>
</tr>
</tbody>
</table>
Discussion

Results of this investigation revealed that at the multivariate level there is a significant interaction between the sex of a target and the gender-type of a job. When examining the mean scores among the dependent variables, it is obvious that female norm-violators (females in the masculine gender-typed job) are perceived as the least likable, least competent and most interpersonally hostile. These results are consistent with the first hypothesis of the current study, and also replicate the findings of Heilman and colleagues (2004), who reported that women who work in masculine gender-typed jobs are viewed as incompetent and face social rejection. Such outcomes are also congruent with the premises underlying tokenism (Kanter, 1977a), the lack of fit model (Heilman, 1983), and role congruity theory (Eagly & Karau, 2002).

What is inconsistent between the results of the current study and these previous theories and models addressing gender norm violations in the workplace is the finding that males in feminine gender-typed jobs were not evaluated negatively, denied reward recommendations or otherwise penalized for violating the norms associated with their gender. Recall that neither Kanter (1977a), Heilman (1983), nor Eagly and Karau (2002) had explicitly limited their theories or model only to females working in masculine gender-typed jobs. In fact, in her work with tokenism Kanter specifically noted that, “Every statement that can be made about what women typically do or feel holds true for some men” (1977b, p. 262).

However, the results from this current investigation do not support the norm violation argument that discrimination in the workplace occurs when there is a
misalignment between the type job or job requirements and the stereotypical traits associated with sex and gender. If this were true, one would expect male norm violators to receive some of the least favorable ratings when compared to the other targets in the presented in the current investigation. On the contrary, male norm violators received rather positive ratings. In fact, when juxtaposed with males and females in masculine gender-typed jobs, males and females in gender-neutral jobs, and females in feminine gender-typed jobs, male targets in the feminine gender-typed job received the second most favorable ratings across likability, hostility and competence. Only females in the feminine gender-typed job earned higher ratings.

Indeed, results from this present study appear to affirm the findings associated the glass escalator phenomenon or the conclusions of Zimmer (1988), rather than those of Kanter (1977a, 1977b), Heilman (1983), or Eagly and Karau (2002). Recall that Zimmer (1988) reviewed numerous investigations of tokenism including studies involving male tokens (e.g., Kadushin, 1976; Benokraitis & Feagin, 1986). The results of these studies led Zimmer to surmise the following: “These examples of men’s experiences as tokens suggest that being ‘few’ in a highly skewed work group has very different consequences for men and women…When males are the tokens, the disadvantages of being the few are minimal and, under some circumstances, turn into advantages.” (p. 70-71).

To be fair, the male norm violation results from the present study are not entirely supportive of this investigation’s predicted hypothesis either. Specifically, Hypothesis 2 suggested that males working in feminine gender-typed jobs would receive the most favorable ratings when compared to all other groups (females in female-gender typed
jobs, and males and females in both gender-neutral jobs and masculine gender-typed jobs). This hypothesis was intended to align with the research on the glass escalator that demonstrated males working in feminine gender-typed jobs were treated with greater deference and often rewarded or promoted at faster rates than their female counterparts (e.g. Blau & Tatum, 2000; Williams, 1992; Floge & Merrill, 1986). However, given that the hypothesis expressly stated that males in feminine gender-typed jobs would receive the most favorable ratings compared to all other, yet they only received the second most favorable ratings, it cannot be stated with legitimacy that the research hypothesis was supported. Despite this somewhat precarious inconsistency, based on the evidence that male norm violators still received relatively positive ratings one could argue that support for the glass escalator was indeed garnered.

*An Implied Communality Surplus*

The argument for males in feminine gender-typed jobs receiving the most positive ratings centered on the idea of an implied communality surplus. The implied communality surplus was hypothesized as an explanation as to why males in feminine gender-typed jobs might be viewed more positively and therefore treated more favorably via the glass escalator. This explanation suggested that unlike female norm violators, who are perceived as deficient in communal traits (Heilman & Okimoto, 2007), males in feminine gender-typed (norm-violators) jobs would be perceived as possessing more of the communal traits associated with their job, as well as the agentic traits associated with their sex. However, male norm violators did not receive the most positive ratings, thus the proposed explanation was not supported either.
On the other hand, males norm violators did still receive rather favorable ratings overall. Thus one could expect that if the implied communality surplus was indeed a viable explanation for these positive ratings some evidence of this effect would still be present. For instance, it could be anticipated that even if not significant, the mean scores for these variables would present a pattern such that the male target in feminine gender-typed job would receive some of the highest scores on agency and communality. An examination of these mean values do indicate that, although the male target in the feminine gender-typed job earned some of the highest average ratings on communality (second only to the female target in the feminine gender-typed job), they received the lowest mean scores on agency. These particular findings are completely opposite of the predicted agency scores for males in feminine gender-typed jobs. According to the hypothesized explanation, male norm violators ride the glass escalator because they are expected to possess a surplus of the positively valenced attributes agency and communality. Obviously, the results do not reconcile with the offered explanation.

Contrary to the hypothesis advocating an implied communality surplus, it appears as though high-levels of perceived agency are not what is driving the positive judgments of male norm violators or their ascent up the glass escalator.

A different possibility may be that males in feminine gender-typed jobs are in fact promoted to avoid a lack of fit or role incongruity. Higher-level and leadership positions are often associated with males (Eagly & Karau, 2002), and therefore the association between sex and leadership or other higher-level jobs is likely to exist even when the job field is feminine (e.g. nursing, elementary school teacher). Thus, males may be promoted
in order to stay consistent with their gender role and avoid a lack of fit. This alternative explanation could possibly reconcile findings established by the norm violations literature (e.g. Heilman & Okimoto, 2008; Heilman et al. 2004; Rudman & Glick, 2001; Rudman, 1992) and the glass escalator research (Williams, 1992). In fact, in her original research on the topic, Williams (1992) pondered whether the glass escalator effect were actually a reflection of the dominant societal status of males or whether these promotions were actually attempts to legitimize males working in feminine gender-typed jobs. Future investigations on this topic might consider exploring each of these possibilities.

*Penalizing Female Norm Violators*

Consistent with the hypotheses of the current study, competence and likeability were demonstrated to predict overall evaluations of a target. In turn, overall evaluations were predictive of reward recommendations. Although not a surprising set of findings in their own right, what is disconcerting about these particular results is that among the current sample it was females in masculine gender-typed jobs who were perceived to be the least competent and least likable. This is in comparison to all other targets (males in male-gender typed jobs, and males and females in both gender-neutral jobs and feminine gender-typed jobs), and in spite of the fact that evidence of the success of these female targets was clearly noted in the job descriptions. Once again, it seems that successful female targets were personally denigrated simply because they pursued work in a masculine gender-typed job. Unfortunately, such findings are nothing new. Similar results have been reported for decades by the likes of Kanter (1977a), Heilman and colleagues (e.g. Heilman & Okimoto, 2007; Heilman et al., 2004), Rudman and
colleagues (Rudman, 1998; Rudman & Glick, 1999; Rudman & Glick, 2001) and so on. What still remains to be answered is why such defamation and discrimination occurs for female gender-norm violators, but not for male gender-norm violators.

Additional Findings

An interesting finding explored in the current study was the impact, or lack thereof, of rater sex on perceptions of the targets. Specifically, when sex of participant was added to the statistical models, the findings did not change, or in the case of the univariate analyses, reach significance. Such results imply that the sex of the rater has an inconsequential effect on the perception of a target, at least in this situation. Similar findings had been previously reported by Heilman et al. (2004). In their investigation, Heilman and colleagues reported that there were no significant interactions or main effects involving subject sex for any of the dependent variables tested. This was true for all three studies. However, other researchers examining subject sex have reported sex differences in the perceptions of gender norm violators. For instance, Parks-Stamm et al. (2008) surmised that female raters may be more motivated than male raters to denigrate successful females, presumably to protect themselves from threatening upward social comparison. In a more direct comparison of male and female rater perceptions, Rudman (1998) discovered that female raters penalized female norm violators more harshly than male raters did. In fact, Rudman went so far as to suggest that “women may be partially responsible for perpetuating gender stereotypes that impede their own socioeconomic status” (p. 642). The somewhat conflicting findings of the current study with those noted
above suggest that additional research on differences in rater characteristics would be a worthwhile pursuit.

Another noteworthy finding was discovered amongst the pattern of results throughout hypotheses one, two, and three. Recall that for each of these hypotheses there was a significant main effect of job gender-type, both at the multivariate and univariate levels. The results of the subsequent post-hoc analyses are supportive of the basic premises of the current paper such that masculine gender-typed job holders are viewed as the most hostile, and least likable, whereas feminine gender-typed job holders are perceived as the most likable and least hostile. What is inconsistent with the premise of the current paper is that the gender-type of the job does not appear to interact with the sex of the target at the univariate level of analysis.

Based on these results it seems that it is the stereotypes associated with the job that are having the greatest impact on rater perceptions of the target. This is not meant to imply that the interaction of sex and job gender-type is void, but rather it may be the case that this interaction has been overemphasized to the extent that is has ignored the powerful influence of the gender-typing of the job itself. What may actually be occurring is that raters first rely on the stereotypes associated with the job to deduce information about the job holder. Secondary information is then provided by the sex of the job holder. Past researchers have already demonstrated that people use job-related cues to make personality judgments. For instance, Johanson (2008) provided evidence that when physical cues relating information about sex are absent; raters rely on implicit personality theories to evaluate leaders. More specifically, this researcher discovered that
when target sex was withheld there was a strong correlation between masculinity and initiating structure, and a strong correlation between femininity and consideration.

In the current study, participants were provided with information about the target sex, yet job gender-type had a greater effect on rater perceptions of communality, likability, and hostility than sex of the target or the interaction of target sex and job gender-type. One possibility for this may be that raters utilize an ad hoc weighting schema when formulating implicit personality assumptions such that they place greater weight on target characteristics that are behaviorally based (i.e. job, career) when compared to those that are biologically based (i.e. sex). Thus, personality evaluations would be more aligned to the conceptions of the job, rather than the stereotypes of the sex. After all, one may choose their profession, but not their sex. Although this explanation is speculative, it does seem clear that information about one’s job has a meaningful influence on the perception of personality.

**Future Research Considerations**

One potential explanation for the lack of robustness in the interaction between sex of target and gender-type of job could be attributed to discrepancies in the manipulation of job gender-types. Although a check of the manipulations did confirm successful manipulation of the gender-typing of the job, it is apparent that the female gender-type of the nursing profession was far more successful than the manipulation of the masculine gender-typed job of a financial planning: Ninety six percent of participants rated the nursing job as female compared with seventy six percent rating the financial planning job as male.
Furthermore, one could argue that the job titles provided for each of the different job gender-types had implicitly cued raters to a job level or job status, which in turn, may have affected rater perceptions. Recall that the job titles provided included Director Training (gender-neutral) Registered Nurse (feminine gender-typed) and, Assistant Vice President of Financial Affairs (masculine gender-typed). For both the masculine and gender-neutral job types there is an implied job level included in the job titles. Given that higher-level and higher-status jobs are often associated with males (Schein, 1973; Heilman, 1983; Eagly & Karau, 2002), it is possible that these job titles skewed the results of the current study by cuing raters to not only consider the gender-typing of the work, but also the gender-typing of the job level. Future researchers should consider using multiple job titles for each job gender-type and varying the job level and job status to determine how these variables may affect rater perceptions of the job holders.

Another potential explanation for contrast between the current study and the results reported by Heilman et al. (2004) is a subtle difference in the research design. Specifically, Heilman et al. utilized a mixed-subjects design, where sex of target was a within-subjects, repeated measures variable. On the other hand, this current investigation employed an entirely between-subjects design. Although this modification was intended to reduce the possibility of demand characteristics, such an alteration increases the within group variance potentially drowning any significant between group variance. It would be interesting to replicate the current study using a within-subjects design to discover if any additional significant findings emerge.
One final speculative thought on probable explanations for the discrepancies between the current study and those published by previous researchers is the dramatic change which occurred in the American workforce during the latter half of this decade and its potential effects on research such as this. During the time data were collected for the present study (March 2009-June 2009), the makeup of the American workforce made a subtle, but remarkable shift. Males were laid off from their jobs in record numbers, yet women remained somewhat stable in the workforce. In fact, during this time women, for the first time in history, comprised 50% of the American workforce (Shriver, Boushey, O’Leary, Skelton, Paisley, et al., 2009). An even more dramatic shift occurred within the household economics: 40 percent of American women became equal or sole breadwinners (Shriver et al.). The contention is that such a dramatic change in the makeup of the American workforce may have forced both males and females to rethink and redefine women in the workplace and thus contributed to a shift in perceptions of sex and gender roles.

Conclusions

A primary objective of the current study was to bridge the gap in the norm violation literature between females who work in masculine gender-typed jobs and males who work in feminine gender-typed jobs. Previous researchers had speculated that norm violation hypotheses were generalizable to males in female-dominated or feminine gender-typed jobs (Kanter, 1977a, 1977b; Eagly & Karau, 2002), but there was little, if any, experimental research to support these claims. Additionally, research on the glass escalator demonstrated that males in feminine gender-typed jobs were not penalized or
discriminated against, but promoted and rewarded. The current findings, although tentative, seem to support the latter research. Specifically, although males were not rated the highest among all comparison groups, they were rated more positively than their norm-abiding male counterparts. This result stands in direct contrast to previous norm violations hypotheses that would suggest that male norm violators should be perceived less favorably than individuals working in gender-consistent jobs.

Finally, although not the primary motivation behind the current research, results from this study do appear to reiterate previous findings that women working in masculine gender-typed jobs are subjected to discrimination in the workplace. As demonstrated in countless other investigations interested in norm violations explanations of workplace discrimination (e.g. Heilman & Okimoto, 2007; Heilman et al., 2004; Rudman & Glick, 2001; Rudman & Glick, 1999; Kanter, 1977a) female norm violating targets in the current study received the most negative ratings and these ratings, in turn, were shown to have an impact on workplace outcomes including overall evaluations and reward recommendations. Yet, on a more encouraging note, the current results provide some evidence that such relationships may not be as robust as in the past.
References


Research was conducted in order to estimate the actual number of males and in females working in each of the job titles utilized for the present study. According to data collected by the Bureau of Labor Statistics (2008), male nurses comprise approximately 8.3% of all registered nursing positions in the United States. Uncovering the number of female VPs of financial affairs was considerably more challenging given that job titles of this sort fluctuate from one organization to the next. The data available from the Bureau of Labor Statistics only had sex statistics for very generic job titles within finance. For instance, data were available for the job titles “personal financial manager” and “financial analyst.” Among these job titles females comprise between 34.3% and 38.8%, respectively. However, when looking to the data for “financial managers” it can be seen that females work in 54.8% of these jobs. For more clarity on this particular job field I examined Fortune 500 companies as a sample. Roughly 20% of senior finance managers among these companies are female (merisgroup.com, retrieved January 30, 2010). Overall, it would seem that the majority of positions in the world of finance are occupied by men. Additionally, it should be noted that the job used in the current study was described as executive level position, and according to the Bureau of Labor Statistics, only 23.4% of executive positions are held by females. Finally, the gender-neutral job title presented in the current study was listed as “Director of Training.” As was the case with the VP of Financial Affairs position, this is a very particular job title and is subject to change within various companies, industries, and so on. It was noted in the job description provided to participants that this job sits in the Human Resources function and data were available from the Bureau of Labor Statistics (2008) on Human Resources Managers. Roughly 66.3% of these jobs are held by women.
Aside from the univariate follow-up analyses conducted and presented above, alternative follow-up analyses to the multivariate analysis of variance were also conducted. Specifically, Tabachnick and Fidell (2001) have proposed that although using the univariate F tests is the most common and straightforward methodology for conducting follow-up analysis to a significant multivariate F, it may not always be the best option. Accordingly, a Roy-Bargmann Stepdown Analysis was conducted as a follow-up to each of the significant multivariate tests conducted for hypotheses 1, 2, and 3. The Roy-Bargmann Stepdown analysis was chosen as the alternative methodology because it is considered the most statistically pure when dealing with correlated dependent variables (Tabachnick & Fidell), as is the case with the current study. However, the results of these analyses did not differ from those of the univariate F tests (i.e. results were non-significant). Thus, given that there was no difference in the findings, for the sake of simplicity and consistency with the proposed methodology the univariate F results were presented in lieu of the Roy-Bargmann Stepdown analysis.
Appendix A: Job Descriptions Provided to Participants

SECTION I

Thank you for participating in this study. Please read the job description below containing information about a job and the individual holding the job. After you have read the description, you will be asked to rate the individual described on several dimensions. Please take the time to read the description carefully and refer back to this description as often as needed.

Job Description:

Registered Nurse: James is a registered nurse (RN) in the trauma ward of a local hospital. James works directly with patients and their families. As a nurse, James serves as the primary point of contact between the patient and the world of health care, in both bedside and outpatient settings. James performs frequent patient evaluations, including monitoring and tracking vital signs, assisting in medical procedures and administering medications. James has good interpersonal skills and sensitivity towards the patients and their family members. In a recent hospital-wide annual performance review, he received consistently high praise for his job performance.

Please continue to the questionnaire.
SECTION I

Thank you for participating in this study. Please read the job description below containing information about a job and the individual holding the job. After you have read the description, you will be asked to rate the individual described on several dimensions. Please take the time to read the description carefully and refer back to this description as often as needed.

Job Description:

Registered Nurse: Andrea is a registered nurse (RN) in the trauma ward of a local hospital. Andrea works directly with patients and their families. As a nurse, Andrea serves as the primary point of contact between the patient and the world of health care, in both bedside and outpatient settings. Andrea performs frequent patient evaluations, including monitoring and tracking vital signs, assisting in medical procedures and administering medications. Andrea has good interpersonal skills and sensitivity towards the patients and their family members. In a recent hospital-wide annual performance review, she received consistently high praise for her job performance.

Please continue to the questionnaire.
SECTION I

Thank you for participating in this study. Please read the job description below containing information about a job and the individual holding the job. After you have read the description, you will be asked to rate the individual described on several dimensions. Please take the time to read the description carefully and refer back to this description as often as needed.

Job Description:

*Assistant Vice President of Financial Affairs*: Jon is the Assistant Vice President of Financial Affairs at his organization. He provides financial planning information to employees. He helps inform employees about within-company benefit options through individual appointments and in-house workshops, and locates out-of-company sources that can aid them in long-term financial strategies for themselves and their families. Jon is good with numbers and knowledgeable about banking, insurance, accounting, and bond and equity investments. In a recent company-wide performance review he received consistently high praise for his job performance.

Please continue to the questionnaire.
SECTION I

Thank you for participating in this study. Please read the job description below containing information about a job and the individual holding the job. After you have read the description, you will be asked to rate the individual described on several dimensions. Please take the time to read the description carefully and refer back to this description as often as needed.

Job Description:

*Assistant Vice President of Financial Affairs:* Anne is the Assistant Vice President of Financial Affairs at her organization. She provides financial planning information to employees. She helps inform employees about within-company benefit options through individual appointments and in-house workshops, and locates out-of-company sources that can aid them in long-term financial strategies for themselves and their families. Anne is good with numbers and knowledgeable about banking, insurance, accounting, and bond and equity investments. In a recent company-wide performance review she received consistently high praise for her job performance.

Please continue to the questionnaire.
Thank you for participating in this study. Please read the job description below containing information about a job and the individual holding the job. After you have read the description, you will be asked to rate the individual described on several dimensions. Please take the time to read the description carefully and refer back to this description as often as needed.

Job Description:

_Director of Training:_ Brian supervises a unit within Human Resources that provides skills training to employees who seek to upgrade their positions within the company. Brian informs employees about job advancement opportunities through individual appointments and in-house workshops, and refers them to professionals who can aid them in developing long-term career goals. Brian is a good communicator and knowledgeable about job and career planning. In a recent company-wide performance review he received consistently high praise for his job performance.

Please continue to the questionnaire.
SECTION I

Thank you for participating in this study. Please read the job description below containing information about a job and the individual holding the job. After you have read the description, you will be asked to rate the individual described on several dimensions. Please take the time to read the description carefully and refer back to this description as often as needed.

Job Description:

*Director of Training:* Maria supervises a unit within Human Resources that provides skills training to employees who seek to upgrade their positions within the company. Maria informs employees about job advancement opportunities through individual appointments and in-house workshops, and refers them to professionals who can aid them in developing long-term career goals. Maria is a good communicator and knowledgeable about job and career planning. In a recent company-wide performance review she received consistently high praise for her job performance.

Please continue to the questionnaire.
Appendix B: Participant Questionnaire

SECTION II
Based on the short description you just read, please rate the job holder on each of the following dimensions. You may refer back to the description as needed.
Using the 1-9 scale provided, please circle the response that best reflects your opinion of the job holder on each of the dimensions below.

Competent  Incompetent

Selfish  Not Selfish

Considerate  Inconsiderate

Effective  Ineffective

Abrasive  Not Abrasive

Friendly  Unfriendly

Unproductive  Productive

Understanding  Not Understanding

Trustworthy  Not Trustworthy

Unsuccessful  Successful
Pushy
1---------2---------3---------4---------5---------6---------7---------8---------9
Accommodating
Supportive
1---------2---------3---------4---------5---------6---------7---------8---------9
Not Supportive
Dominant
1---------2---------3---------4---------5---------6---------7---------8---------9
Submissive
Assertive
1---------2---------3---------4---------5---------6---------7---------8---------9
Not Assertive
Active
1---------2---------3---------4---------5---------6---------7---------8---------9
Passive
Likeable
1---------2---------3---------4---------5---------6---------7---------8---------9
Not Likeable
Sympathetic
1---------2---------3---------4---------5---------6---------7---------8---------9
Not Sympathetic
Tough
1---------2---------3---------4---------5---------6---------7---------8---------9
Not Tough
Nice
1---------2---------3---------4---------5---------6---------7---------8---------9
Mean
Strong
1---------2---------3---------4---------5---------6---------7---------8---------9
Weak
Manipulative
1---------2---------3---------4---------5---------6---------7---------8---------9
Not Manipulative
Timid
1---------2---------3---------4---------5---------6---------7---------8---------9
Bold
SECTION II

Next, based on the description of the job holder provided earlier, please answer each of the following items. Please place an “X” to indicate your response. You may refer back to the description as needed.

1. How much do you think you would like this individual?

Not at all Somewhat Very Much

2. How would you feel about working with this person?

Not at all Neither Pleased nor Displeased Very Pleased

3. What do you think of this individual’s overall work performance?

Very Low Average Very High

4. Overall, how would you rate this individual?

Very Low Average Very High
5. To what degree would you recommend promoting this individual to a higher-level position?

Not at all       _______    Somewhat  _______    Very Much

6. To what degree would you recommend this individual for a salary increase?

Not at all       _______    Somewhat  _______    Very Much

7. Based on the description you read, what is the sex of the job holder described? Please circle only one response.

Male          Female

8. Based on the job description you read, do you suppose that the typical or majority of job holders in this field are male or female? Please circle only one response.

Male          Female

Please continue to the next page.
SECTION III
Instructions: Now I would like you to tell me a little bit about yourself. Please place an “X” to indicate your response.

1. Sex (check only one)
   Male________
   Female_______

2. Age_____________

3. Race (check only one)
   White_____   Hispanic/Latino_____   Native American____
   Asian_____   Aleut/Pacific Islander____   Other (Please Specify)____
   Arabic_____   Black/African American____