ABSTRACT

MULLINS, ALEXANDRA KARI. The Effect of Leader Gender on the Relation Between Workgroup Performance and Subordinate Perceptions of Leader Effectiveness. (Under the direction of Dr. S. Bartholomew Craig).

Despite a lack of evidence for significant behavioral differences, prior research suggests that observers rate male leaders more positively than female leaders. This study examined the potential moderating effect of leader gender on the relationship between objective performance and subjective evaluations. Three theories were tested to determine which one(s) best explained the disparities between male and female leader ratings. These theories were: tokenism theory (Kanter, 1977), status characteristics theory (Berger, Fisek, Norman, & Wagner, 1985), and leadership categorization theory (implicit leadership theories; Lord & Maher, 1993; Lord, Foti, & DeVader, 1984). Followers from 14 organizations were asked to evaluate their leaders’ behavior and to give their perceptions of leaders in general, as well as how much status males and females deserved in their organizations. Using a series of multilevel models, this study found that, under certain conditions (e.g., when followers believed men deserved more status than women or followers associated “male” with “leader”), the leaders’ gender moderated the relation between objective workgroup performance and subjective evaluations of leader effectiveness. Specifically, female leaders were rated lower than male leaders, even when their workgroups performed equally well. Explanations based on implicit leadership theories and status characteristics theory were supported, while tokenism theory was not. Directions for future research and implications for organizations are discussed.
The Effect of Leader Gender on the Relation Between Workgroup Performance and Subordinate Perceptions of Leader Effectiveness

by
Alexandra K. Mullins

A thesis submitted to the Graduate Faculty of North Carolina State University in partial fulfillment of the requirements for the degree of Master of Science Psychology

Raleigh, North Carolina
2013

APPROVED BY:

_______________________________  ________________________________
Dr. S. Bartholomew Craig          Dr. Lori Foster Thompson
Chair of Advisory Committee

______________________________
Dr. Mark A. Wilson
DEDICATION

I would like to dedicate this thesis to Al, Karen, and Max Mullins. This would not have been possible without your love and support.
BIOGRAPHY

Alexandra Kari Mullins was born May 24, 1987, in Napa, California. She earned a high school degree from Green Hope High School in Morrisville, North Carolina. Next, she completed her undergraduate education at North Carolina State University in 2009, earning a Bachelor of Arts degree in Psychology. In the fall of 2009, Alexandra continued her education at North Carolina State University where she entered the Industrial and Organizational Psychology Doctoral program. During her time at North Carolina State University, Alexandra has worked as a teaching assistant for multiple psychology courses and is currently a research assistant working with the North Carolina State Highway Patrol.
# TABLE OF CONTENTS

LIST OF TABLES ................................................................................................................. v
LIST OF FIGURES ............................................................................................................. vi
Disparities Between Male and Female Leaders ................................................................. 2
Subjective Evaluation in Organizations ............................................................................. 4
Theoretical Explanations for Disparities ............................................................................ 7
The Current Study ............................................................................................................... 13
Participants ....................................................................................................................... 16
Procedure .......................................................................................................................... 17
Measures ............................................................................................................................ 18
Analyses and Results ........................................................................................................ 21
Practical Implications ....................................................................................................... 28
Limitations and Future Research ...................................................................................... 29
References ......................................................................................................................... 31
LIST OF TABLES

Table 1. Means, Standard Deviations, Reliabilities and Intercorrelations among Study Variables.................................................................35

Table 2. Within-Leader and Between-Leader Variance Accounted for by each Model..................................................................................37

Table 3. Effects of Leader Gender on Subjective Ratings.........................................................39
LIST OF FIGURES

Figure 1. Interaction between leader gender and objective performance on the growth sub-dimension of strategic leadership. ..........................................................40

Figure 2. Interaction between leader gender and objective performance on the direction sub-dimension of strategic leadership. ..........................................................40
The Effect of Leader Gender on the Relation Between Workgroup Performance and Subordinate Perceptions on Leader Effectiveness

Leadership plays a critical role in organizations. Leadership has been defined as the capability to successfully guide a group of individuals toward a common goal or purpose (Riggio, 2000). Leadership typically consists of behaviors that influence, motivate, organize, and coordinate employees’ work (Eagly & Carli, 2007). Not all leaders are equally effective at providing such guidance, so organizations spend billions of dollars annually on leadership development in an attempt to help people become better leaders (Riggio, 2008).

In addition to their obvious role in directing work activities, leaders have the ability to influence outcomes for employees (e.g., attitudes and mental health) and the organization itself (e.g., climate and culture). Leaders can help increase employees’ sense of empowerment by giving them autonomy and support in their work (Riggio, 2000). They reduce employee stress by acting as “shock absorbers” during organizational change as well as acting to maintain employee trust (Skagert, Dellve, Eklof, Poussette, & Ahlborg, 2008). Increasing employee confidence and decreasing employee stress can aid in creating an industrious work environment (Riggio, 2000). Leaders often have the authority to make decisions affecting various dimensions of organizational climate and culture, such as organizational change, policy, and employee structure. Leaders are usually those who make important decisions regarding policy additions or changes, organizational restructure, hiring, laying off employees, etc. (Westaby, Probst, & Lee, 2010). Ultimately, much of an organization’s success rests in the hands of its leaders (Tichy & Bennis, 2007).
Disparities Between Male and Female Leaders

For years, statistics have shown that men make more money than women, even when holding the same job position (Eagly & Carli, 2007). Stroh, Brett, and Reilly (1992) suggest that female managers’ salaries and career advancement rates are behind those of male managers. Women are less likely to hold high ranking positions in organizations and also less likely to be offered promotions (Eagly & Carli, 2007). In 2009, a survey reported that women accounted for only 13.5% of the executive officer positions in the United States (Catalyst, 2010). In fact, almost 30% of corporations have no women in such positions. Even though women’s representation is low in absolute terms, the number of women in executive officer positions has increased within the past 15 years. Chief executive officer (CEO) positions held by women have increased from 0% to a mere 3% (Catalyst, 2010). Although one might suspect that differential representation of genders by organization type contributes to these numbers, research shows no advantage toward advancement for women in female, relative to male, dominated fields (Eagly & Carli, 2007). Though women are underrepresented in executive positions, the current study did not directly address the underrepresentation of females at executive levels. Rather, the current study examined issues related to the evaluation of female leaders’ performance that may be relevant to why this phenomenon occurs at higher-ranking positions.

In addition to the gender discrepancy in executive positions, there can be no doubt that, in many respects, women differ from men. The apparent differences between the sexes have resulted in the formation of gender stereotypes. Women are commonly expected to
behave in a communal manner (e.g., concerned with the care of others), while men are often associated with assertive and controlling behaviors, known as agenticism (Eagly & Sczesney, 2009). These stereotypes carry over into work roles and affect which job positions are perceived to be more suitable for females and which positions are perceived to be more suitable for males. Since people believe that women behave differently than men, they likewise may expect that women should hold different jobs than men in the workplace (Ridgeway, 1992).

When men and women are in leadership positions, are their leadership behaviors really different? Helfat, Harris, and Wolfson (2006) contend that relatively little is known about comparisons between women and men in upper management. However, researchers have posited that male and female leaders display few behavioral differences, for the most part (Morrison, White, & Van Velsor, 1987). Despite a lack of evidence for significant behavioral differences, prior research suggests that observers rate male leaders slightly more positively than female leaders (Eagly & Carli, 2007; Eagly, Makhijani, & Klonsky, 1992).

**Negative evaluations of female leaders.** Meta-analytic research (e.g., Eagly et al., 1992) suggested that, overall, women were more likely than men to be evaluated negatively when in positions of leadership, when occupying a stereotypical male work role, or adopting a more masculine style of leadership. Women leaders were also found to be less favorably evaluated by male subordinates when using assertive speech or expressing anger (Glomb & Hulin, 1997; Lewis, 2000). Even when the same behaviors were carried out by both men and women, women were evaluated more negatively and perceived to be less valuable by male
subordinates (Eagly et al., 1992). Gender bias was found to have a profound negative effect on performance evaluations and professional advancement of women in organizations. Overall, female leaders tend to encounter greater obstacles to advancement and performance than males in the same position (Lyness & Heilman, 2006).

**Positive evaluations of female leaders.** Although the current discussion focuses on negative evaluations of female leaders, relative to males, it should be noted that female leaders may be evaluated positively dependent upon leadership style and organizational performance. These positive evaluations are less frequent than negative ones, but they do occur in certain contexts. Research suggests that women are likely to be evaluated positively when they adopt a feminine style of leadership (e.g., democratic toward employees or considerate of employee well-being; Eagly et al., 1992; Eagly & Carli, 2003). In fact, female leaders are rated as high as male leaders when both sexes adopt feminine leadership (Eagly et al., 1992). Moreover, depending on a company’s financial performance (e.g., either prospering or declining), women are more often sought for leadership positions and evaluated positively in times of lower organizational performance, although this tendency also places them at greater risk for failure (Haslam & Ryan, 2008).

**Subjective Evaluation in Organizations**

Given apparent disparities between subjective evaluations of male and female leaders, it is important to understand why subjective leader evaluations are commonly used to assess leader performance, as well as to understand how other factors (e.g., gender) can influence these evaluations. Although performance ratings typically include a high level of
subjectivity, subjective evaluations are common in the workplace (Moers, 2005). Ratings from subordinates have been argued to be the most reliable subjective indicators of leader performance because leaders interact more regularly with subordinates than superiors or peers (Hogan, Curphy, & Hogan, 1994; Mount, 1984); therefore, subordinates are likely to know more about leaders’ performance-related behaviors. Further, leaders may not always have superiors or peers, depending on their location in the organization’s structure, but are guaranteed to always have subordinates (Hogan et al., 1994).

Gender has been found to affect performance evaluations. Moers (2005) claims that, in general, subjective ratings lead to gender bias in performance evaluations. Jonnergard, Stafsud, and Elg (2010) support this notion of bias by arguing that indicators of good performance tend to be based on male norms. Gender also influences how these performance evaluations are perceived by the individual who is being evaluated. Men and women attach more importance to different parts of the evaluations. Women are more concerned with who is evaluating them (e.g., subordinates, peers, superiors), while men tend to focus on what is being evaluated (e.g., performance, leadership effectiveness; Jonnergard et al., 2010). In an effort to examine gender’s influence on subjective evaluations in the current study, objective measures were also used to measure leader performance.

Although subjective evaluations of leaders are often convenient, their relationship with other performance criteria is not well understood. Prior research has not investigated how the relationship between objective workgroup performance and coworkers’ perceptions of leaders might vary with gender. In the current study, objective performance refers to
workgroup performance criteria (e.g., unit profit, revenue growth, percent of financial goals achieved) that exist independent of subjective perception. One might expect a positive relationship between objective measures and subjective measures, and past research has suggested that objective measures and subjective measures of company performance are correlated (Gonzalez-Benito & Gonzalez-Benito, 2005; Jaworski & Kohli, 1993); however, this issue has primarily been examined in the context of market orientation and company competitiveness and has not addressed the form of the relationship between objective and subjective evaluations of leaders (Lyness & Heilman, 2006).

In addition to allowing for examination of their relation, having more than one mode of measurement (e.g., objective performance and subjective evaluations) of leader performance contributes to increased accuracy of assessments. Jaworski and Kohli (1996) point out that the emphasis on subjective evaluations has been a limitation of past research. Possible reasons for this could be that managers are hesitant to release objective performance data they feel are confidential, subjective measures may be more suitable when comparing cross-industry performance, and objective measures may not even accurately describe the financial condition of the organization (Dess & Robinson, 1984). The current study used subjective measures of performance in conjunction with objective measures to examine the relation between them and examine how this relationship might be moderated by leader gender.
Theoretical Explanations for Disparities

Interestingly, research on gender differences and leadership style has not typically been driven by theories about gender’s impact on leadership. In fact, of the studies not explicitly based on a specific theory, gender theories are often not even mentioned until results or discussion sections of journal articles (Ayman, Korabik, & Morris, 2009). In essence, existing theories have not truly been tested as explanations for existing disparities. There are a number of theories that, when tested, could provide explanations for disparities likely to be seen in male and female leader evaluations. Among these theories are: tokenism theory (Kanter, 1977), status characteristics theory (Berger, Fisek, Norman & Wagner, 1985), stereotype-related theories [including leadership categorization theory (Lord, Foti, & DeVader, 1984; Lord & Maher, 1993), behavioral stereotypes (Eagly & Johnson, 1990), social role theory (Eagly, 1987), role congruence theory (Eagly & Karau, 2002)], and transformational leadership theory (Bass & Avolio, 1993).

**Tokenism theory.** As developed by Kanter (1977), tokenism theory is not specific to gender, but can apply to any sort of minority subgroup (e.g., race). For the purposes of this study, tokenism will be discussed with regard to gender and it is assumed that women are tokens in leadership settings more often than men are, although men may be tokens in some cases. Tokenism theory divides groups into “tokens” and “non-tokens” or dominants. Tokens are defined as the representative minority group, or more specifically, a group that constitutes less than 15% of a given population (Kanter, 1977). For example, when women constitute less than 15% of the workplace, women are assumed to have a token status.
Further, being a member of the minority comes with its consequences. According to Kanter (1977), these consequences include the following: (1) strained performance by tokens, resulting from feeling that they are constantly in the spotlight and not blending in with the rest of the dominant group; (2) strained communication, resulting from the dominant group not knowing how to treat the tokens; (3) stereotyping of the tokens by the dominant group and only accepting behaviors that are in harmony with the token group’s stereotyped role. If the token does not adhere to the expected role, then he or she is more likely to be evaluated negatively by others. However, meta-analytic research found that token female leaders are more likely to adopt a masculine style of leadership in an effort to maintain authority (Eagly & Johnson, 1990). Peers and subordinates generally evaluate token group members more negatively than non-tokens (Schmitt, Spoor, Danaher, Branscombe, 2009).

Kanter (1977) further suggested that token female leaders behave differently toward their subordinates than dominant male leaders behave, because of the implications of token status. Token leaders feel that they are constantly under pressure and responsible for representing their gender well in the organization. Token leaders may cope with such pressures by socially isolating themselves or striving for maximum performance and achievement (Kanter, 1977). Token female leaders have been found to behave differently than female leaders among a female-dominated workforce (Johnson, 1992). But token men do not seem to show this same pattern. Token men in female-dominated organizations are granted faster career advancement than women in both female-dominated and male-dominated fields (Eagly & Carli, 2007).
**Status characteristics theory.** Status characteristics theory suggests that a person’s sex is a status characteristic (i.e., high or low status; Berger et al., 1985). In this view, the male status is more respected than the female status (Berger et al., 1985; Ridgeway, 1992). Status may, in turn, affect leaders’ self-esteem and even how they interact with subordinates. Leaders may interact differently with subordinates in a female-dominated organization compared to a male-dominated organization because the female leader may feel less anxiety leading a group of women. According to this view, the female leader does not feel inferior to her female subordinates, therefore also feeling more positive about the interaction. Research suggests that a primary component affecting the nature of the leader-subordinate interaction is the gender of the leader (Johnson, 1992).

In situations where both men and women are present (e.g., a business meeting), this theory suggests that men will be awarded more power, allowed more time to talk, and also have their ideas taken more seriously (Ridgeway, 2001; Watson & Hoffman, 2004). In similar situations, women’s expectations for themselves are likely to be affected solely because of their gender’s status. Others who view the status of gender as relevant are also likely to form their own expectations. Research has shown that women whose roles are not congruent with their status (i.e., being a female leader) will be given lower evaluations as well as lower attributions of ability and influence; further, they will have a lower likelihood of even being placed into leadership roles (Watson & Hoffman, 2004).

**Leader categorization theory.** Lord and Maher (1993; see also Lord, Foti, & DeVader, 1984) proposed that people hold general ideas about the traits and behaviors of
leaders and even what a leader should look like. These ideas are known as implicit leadership theories (ILTs). If a leader possesses traits that are not part of an observer’s leader prototype, or that leader fails to exhibit those traits that are a part of the prototype, that leader may be evaluated negatively by the observer. An individual’s leader prototype often includes (but is not limited to) expectations about race, gender, and ethnicity (Lord & Emrich, 2001). Leader expectations also range from external to internal attributes; leader prototypes have been suggested to vary across eight dimensions: sensitivity, dedication, tyranny, charisma, attractiveness, masculinity, intelligence, and strength (Epitropaki & Martin, 2004; Offermann, Kennedy, & Wirtz, 1994). Perceivers are likely to categorize target individuals as leaders or non-leaders based on whether the individuals possess prototypical traits (Lord & Emrich, 2001). Research shows that organization members hold the view that managerial jobs are more male typed, and that the concepts of “men” and “managers” are more consistently linked than the concepts of “women” and “managers.” This view has persisted for the past 30 years (Schein, 1973; 2007).

Three additional theories have various propositions that may also explain why perceptions differ for male and female leaders. These theories all relate to the notion of implicit leadership theories in that, if a perceiver views the prototypical leader as male, then by implication the perceiver is also more likely to hold other, related, beliefs about the unsuitability of females for the role of leader. Several closely related theories all posit such beliefs, about characteristics of females (behavioral stereotypes; Eagly & Johnson, 1990), what constitutes appropriate female behavior (social role theory; Eagly, 1987), and what
constitutes appropriate leader behavior (role congruence theory; Eagly & Karau, 2002). These theories will now be discussed in more depth.

**Behavioral stereotypes.** Eagly and Johnson’s meta-analysis (1990) suggested that male and female leaders were likely to perform gender-stereotypical behaviors. The meta-analysis found that women in leadership roles tended to have a person-oriented (i.e., focused on interpersonal relationships with employees) style of leadership, while men tended to have a task-orientation (i.e., focused on the work task; Eagly & Johnson, 1990; Riggio, 2000). Although these differences between male and female leaders have been documented, they are not large in magnitude.

As female leaders act and appear to be concerned with the well-being of their employees, these stereotypes and leadership styles create a “double bind” for these women (Eagly & Carli, 2007, p. 102). As previously mentioned, women are expected to be communal, yet leaders are expected to be agentic. This “double bind” is hypothesized to create dissonance for subordinates who observe female leaders’ demonstration of agentic behaviors, making it more likely that they will resist the female leader in the organization or evaluate her performance more negatively (Eagly & Carli, 2007).

**Social role theory.** Social role theory proposes that men and women are expected to display stereotypical gendered behavior consistent with their roles in society (Eagly, 1987; Watson & Hoffman, 2004). In everyday life, women should appear communal (i.e., helpful and nurturing), while men are to appear agentic (i.e., dominant and confident; Johnson, Murphy, Zewdie, & Reichard, 2008). Society has adopted these behavioral roles, and as such
men and women seek to fulfill their designated roles (Cabrera, Sauer, & Thomas-Hunt, 2009; Watson & Hoffman, 2004). If leaders display behaviors contradictory to their social roles (e.g., an assertive female leader or a nurturing male leader), they are susceptible to negative evaluations by subordinates (Johnson et al., 2008).

**Role congruence theory.** According to Eagly and Karau (2002), role congruence theory states two forms of bias will emerge as a result of a perceived conflict between a woman’s gender and leadership roles. The first form of bias occurs because men are typically viewed as more “fit” to hold leadership positions than women, due to a lack of fit between the role of “leader” and the role of “woman,” resulting in a lower probability of selection into leadership roles for females (Eagly & Karau, 2002; Lyness & Heilman, 2006). The second form of bias results when a woman takes on a leadership role and implements a masculine leadership style. A conflict arises between her gender and leadership roles (Eagly & Karau, 2002; Johnson et al., 2008). Prior research has shown that when either form of bias is present, a female leader will be perceived as deviant and evaluated negatively because her roles are incongruent (Watson & Hoffman, 2004).

**Transformational leadership theory.** Apart from many of the theories evaluating women leaders negatively, the transformational leadership approach holds somewhat more positive implications for female leaders. Bass and Avolio (1993) suggest that transformational leaders are able to motivate their followers by communicating an inspirational vision of the organization’s future. Transformational leaders also take an avid interest in their employees by showing them respect, facilitating their personal growth and
development, and providing mentoring relationships for their employees (Ayman, Korabik, & Morris, 2009; Bass & Avolio, 1998). Past research has shown that when subordinates evaluated male and female leaders on the dimension of transformational leadership, female employees viewed female leaders as more transformational than male leaders. Male employees did not significantly differ in their ratings given to male or female leaders and evaluated them similarly (Maher, 1997). This research is noted here as support for differences in the perceptions of male and female leaders. However, because this explanation is primarily concerned with mean level of performance and not the relationship between objective and subjective indicators of performance, it will not be a focus of the current study.

Previous research finding differing evaluations of leaders by gender has tended to focus on subjective evaluations of performance. An important and unresearched question is whether male and female leaders perform at different levels in an objective sense, or whether it is only subjective evaluations that are influenced by leaders’ gender. Any of the rationales discussed above could explain differences in the way subordinates evaluate leaders of different genders, but no previous research has examined these explanations with regard to objective performance criteria. Nor has any previous study examined multiple competing explanations at once to determine which best explain observed effects.

**The Current Study**

As previously stated, this study did not directly address the underrepresentation of females at executive levels, but rather investigated issues related to the evaluation of female leaders’ performance in an effort to contribute to our understanding of why this gender
discrepancy is occurring at the executive level. The proposed study sought to explore the relationship between objective workgroup performance and subjective evaluations of leaders by subordinates, with particular emphasis on the moderating effect of leaders’ gender. Based on previous findings of a correlation between objective performance and subjective evaluations (Gonzalez-Benito & Gonzalez-Benito, 2005; Jaworski & Kohli, 1993) and that female leaders do not behave significantly differently from male leaders (Morrison et al., 1987; Eagly & Carly, 2007), but yet are evaluated more negatively (Eagly et al., 1992), gender is expected to interact with group performance in influencing followers’ perceptions. Thus, the current study addressed the following hypothesis:

**Hypothesis 1:** The relation between objective performance of the workgroup and subjective evaluations of leaders will be moderated by leader gender.

As discussed above, several theories predict that leaders’ gender will influence subjective evaluations by subordinates. Yet these theories present differing propositions as to the mechanisms underlying this effect. This study was designed to disentangle the competing explanations and test tokenism theory, status characteristics theory, and leadership categorization theory further to see which are able to explain the existing disparities between evaluations of male and female leaders. No past research has directly compared these theories as competing explanations. Therefore, the current investigation will consider multiple theories in an effort to test the following, mutually nonexclusive, hypotheses:

**Hypothesis 2:** Consistent with tokenism theory (Kanter, 1977), leader gender will moderate the relationship between objective workgroup performance and subjective
leader evaluations in settings where leaders of either gender occupy fewer than 15% of leadership positions.

**Hypothesis 3**: Consistent with status characteristics theory (Berger et al., 1985), leader gender will moderate the relationship between objective workgroup performance and subjective leader evaluations when members of either gender are rated higher in status than the other.

Regarding hypothesis 4, because of the overlap among the explanations provided by ILTs, behavioral stereotypes, social role theory, and role congruence theory, the latter three explanations cannot logically operate if the ILT explanation is not also operating. That is, the ILT explanation implies an association between perceivers’ concepts of “male” and “leader,” and if that association is not present then none of the other explanations can be true. Therefore, in this initial investigation only the ILT explanation will be directly tested.

**Hypothesis 4**: Consistent with leadership categorization theory (Lord & Maher, 2003), leader gender will moderate the relationship between objective workgroup performance and subjective leader evaluations when leaders’ raters score high on the masculinity dimension of an implicit leadership theories scale.

Although previous findings of behavioral differences between male and female leaders have been equivocal, because prevailing stereotypes suggest that male leaders may be more likely to exhibit a task-oriented style of leadership and female leaders more likely to exhibit a relations-oriented style of leadership (Eagly & Johnson, 1990), the following hypotheses are also proposed:
**Hypothesis 5:** Male leaders will be rated higher than female leaders on task-oriented leadership.

**Hypothesis 6:** Female leaders will be rated higher than male leaders on relations-oriented leadership.

**Method**

**Participants**

For this study, subjective evaluations of leader performance were collected from leaders ($n=88$) and their followers ($n=151$), from 14 organizations. Of the total number of organizations and leaders who were invited to participate, the response rate from organizations was 46%, 67% from leaders, and 48% from their followers. Each leader nominated subordinate raters; these raters were then invited to participate in the study by evaluating their leaders. About 44% of the raters were women and 56% were men. The mean number of raters per leader was 1.81 raters ($SD = .78$, range 1-5). Four subordinates were not included in the analyses because they indicated “hardly knowing” their supervisors. Leaders represented a wide range of organizational levels: the study sample consisted of 21 supervisors, 9 middle-managers, 31 functional heads, 14 general leaders, 8 executives, and 5 senior executives. About 30% of leaders were women and 70% were men. Leaders were asked to report their age ($M = 42.61$, $SD = 9.73$), total years of experience working in a managerial job ($M = 13.58$, $SD = 8.89$) and years spent in current role ($M = 4.39$, $SD = 4.59$). The types of industries sampled include: automotive, retail, pharmaceuticals, consulting, restaurant, and computer technology.
Procedure

**Recruiting organizations.** Participants were recruited from hierarchically structured organizations. Organizations were invited to participate based on two criteria: leaders within the organization must have worked in a workgroup where they had followers who reported directly to them, and must have had some objective measure of their workgroups’ performance. Any level of management that agreed to participate was included.

Several strategies were used to identify target organizations for this study. One strategy was to contact North Carolina State University industrial-organizational psychology alumni currently working in organizations (e.g., GlaxoSmithKline, IBM, and SAS) that might be willing to participate. Another strategy was to contact Research Triangle Park organizations to see if any would assist in the study. Further, American Society for Training and Development and Conference Board resources were used to identify organizations that have previously participated in research studies.

Once a list of potential organizations was compiled, meetings were scheduled with representatives of each organization to inform them of what specifically was needed from their organization and employees (e.g., access to archival records, ratings from employees). This meeting determined whether or not final approval was granted to use the organizations in the data collection process. Organizations were told that they would be offered a technical report summarizing the study’s results in exchange for their participation.

**Leaders.** After the participating organizations were identified, managers (i.e., leaders) were invited to participate in the survey. Leaders completed an informed consent
form acknowledging that archival records of their groups’ performance may need to be obtained. They were assured that ratings of their performance would remain confidential and their identities would only be used to link their ratings to the performance criteria for their group. Leader participants were asked to provide demographic information, including age, gender, ethnicity, job title, time in current position, and time in organization (if different from current position). Leader participants were asked to provide email addresses for their followers, so that followers could be invited via email to participate.

In an effort to examine tokenism theory, leaders were also asked to provide data concerning the number of male and female managers in the organization. If leaders could not provide this information, the human resource department in each organization was contacted or online resources were used.

**Followers.** Follower participants received an email message containing a link to the online survey. Followers who chose to participate were required to read and confirm a separate informed consent provided at the start of the survey. Follower participants were assured that all ratings would be confidential and that responses could not be linked to raters’ identities by anyone in their organizations. After providing informed consent, follower participants completed the measures described below.

**Measures**

**Subjective leadership performance** (48 items; Forceful $\alpha = .94$, Enabling $\alpha = .90$, Strategic $\alpha = .94$, Operational $\alpha = .93$). Subjective evaluations of leaders’ performance were collected using Kaplan and Kaiser’s (2003) Leadership Versatility Index ® (LVI). The LVI
is a 360° survey which measures leader performance on four dimensions and twelve sub-dimensions: forceful (takes charge, declares, pushes), enabling (empowers, listens, supports), strategic (direction, growth, innovation), and operational leadership (execution, efficiency, order). Sample items include “[the leader] gives people room to show initiative” (enabling) and “[the leader] gives direction—tells people what to do” (forceful). The LVI is based on the idea that suboptimal performance can result either from leader behaviors being under-done or being over-done. Response options for each item ranged from -4 (much too little) to +4 (much too much). Because developmental feedback was not a goal of the current study, the sign of ratings was removed and scores reversed so that higher numbers indicated higher perceived performance (i.e., final scale of 0 to 4). Within each leader, rater scores were averaged in order to obtain a single score for each dimension and sub-dimension. The process was repeated for status conditions as well as ILT conditions.

**Objective workgroup performance.** Leaders were asked to report the percent of “plan” or “goal” achieved by their workgroup or team in their organizations’ most recent reporting period. This approach was used to provide a common metric (i.e., 0-100) across the diverse organization types in the current study. Measures of objective workgroup performance included: percentage of forecasted sales goals achieved, percentage of forecasted revenue goals achieved, and percentage of forecasted goals for sales growth achieved. These measures varied by leader and organization.

**Status conferral** (6 items, α = .83). Status conferral was assessed with a scale adapted from Brescoll and Uhlmann (2010). In previous research, this scale assessed the
status, power, and independence a potential job candidate deserved at his or her job and whether the participant would hire the job candidate (Brescoll & Uhlmann, 2010). The scale has been adapted for the current study to assess the status conferred upon organization members of different genders. A sample item is “How much status do females [males] deserve in your organization?” Exploratory factor analysis (EFA) in the current study suggested a one-factor solution. According to Lozano, Garcia-Cueto, and Muniz (2008), if participants are presented with more options than necessary, they will have trouble differentiating between options and measurement error is likely to increase. In keeping with Lozano et al.’s recommendations for number of response options, the number of options for this scale was reduced from 11 to 5 for this study. Possible responses ranged from 1 (none) to 5 (a great deal).

Implicit leadership theories (21 items, $\alpha = .63$). Employees’ implicit leadership theories were assessed with a scale from Epitropaki and Martin (2004). The full scale is comprised of six dimensions of ILTs including: sensitivity, intelligence, dedication, dynamism, tyranny, and masculinity, though only masculinity is of concern in the current study. Sample masculinity items are “[A business leader is] masculine” and “[A business leader is] male.” These items were averaged to get a single masculinity score for each rater. Scores more than one standard deviation above the mean (raw score >4.5) were considered “high” in the current study. As originally developed, possible responses for each item ranged from 1 (not at all characteristic) to 9 (extremely characteristic). However, for this study, the
scale was changed to a 1 (not at all characteristic) to 7 (extremely characteristic) based on Lozano et al.’s (2008) recommendations.

**Demographic variables.** Demographic variables assessed were: tenure with current supervisor (measured in months), age, and participant gender.

**Analyses and Results**

The means, standard deviations, reliabilities, and intercorrelations of the variables included in this study are presented in Table 1. A set of multilevel models (MLM) was used to analyze how subjective evaluations by raters were affected by the leader’s gender and their objective performance. MLM is typically used when there are observations nested within larger groupings (Raudenbush & Bryk, 2002). Although there has been debate about acceptable sample sizes in MLM, Maas and Hox (2005) recommend level 2 sample sizes of 50 or more. For this study, raters (Level 1) within leaders (Level 2) were examined; MLM also allows for investigating cross level interactions. At the rater-level, the outcome variables consisted of subjective evaluations by leaders’ followers. At the leader-level, leader gender and leaders’ objective performance were the main predictors. Raters’ gender was used as a control variable. The general equation (Equation 1) is shown below.

**Level 1:** Subjective Rating\(_{ij}\) = \(B_{0ij} + B_{1ij}\) (Rater Gender) + \(r_{ij}\)

**Level 2:** \(B_{0i} = \gamma_{00} + \gamma_{01}\) (LeaderGender) + \(\gamma_{02}\) (Objective P) + \(\gamma_{03}\) (LGXOP) + \(u_{0i}\)

**Level 2:** \(B_{1i} = \gamma_{10} + \gamma_{11}\) (LeaderGender) + \(\gamma_{12}\) (Objective P) + \(\gamma_{13}\) (LGXOP)

(1)

It is recommended to conduct a preliminary analysis to ensure that there is sufficient variance at level 1 and level 2 to warrant further analyses (Raudenbush & Bryk, 2002). This
preliminary analysis is called the fully unconditional model, where no other term other than
the intercept is included at any level (Nezlek, 2001). All 16 dependent variables yielded level
1 and level 2 variance. Any nonzero amount of variance in level 1 and level 2 is an
acceptable amount of variance to warrant further analyses. Therefore, the fully unconditional
models indicated that there was sufficient variability. Although there was not significant
variance at level 1 in all fully unconditional models, MLM was still appropriate because of
the nature of the data (e.g., nested data) and to maintain consistency throughout the analyses.

Hypothesis 1 predicted that the relation between objective performance of the
organization and subjective evaluations would be moderated by leaders’ gender. Results
indicated that, in the full sample, after controlling for rater gender, there was a main effect of
objective performance on forceful leadership ($\gamma_{02} = .17$, $t = 2.11$, $p < .05$), as well as two sub-
dimensions of forceful leadership, declares ($\gamma_{02} = .25$, $t = 2.69$, $p < .01$), and pushes ($\gamma_{02} =
.11$, $t = 2.03$, $p < .05$), such that when objective performance was high, subjective ratings
were high. Leader gender, however, did not moderate the relationship between objective
performance and subjective performance on any subjective dimension or sub-dimension. The
amount of variance accounted for by each of these models, as well as the proceeding models,
is presented in Table 2. Hypothesis 1 was not supported. Although the other dimensions and
sub-dimensions did not yield significant results, further hypotheses were tested to see if the
relationships varied according to the conditions specified by theory.

Hypothesis 2 predicted that leader gender would moderate the relationship between
objective workgroup performance and subjective leader evaluations in settings where leaders
of either gender occupy fewer than 15% of leadership positions. Examining only organizations where women were of token status \((n = 3)\), results indicated a main effect of objective performance on the \textit{pushes} sub-dimension of forceful leadership \((\gamma_{02} = .19, t = 2.12, p < .05)\). In organizations where men were of token status \((n = 1)\), results did not indicate any significant main effects or interactions. Since leader gender did not moderate the relationship between objective performance and subjective ratings, hypothesis 2 was not supported.

Hypothesis 3 predicted leader gender would moderate the relationship between objective workgroup performance and subjective leader evaluations in settings where members of either gender are rated higher in status than the other. For followers who rated females as more deserving of status \((n = 64)\), the leader gender X objective performance interaction was not significant for any dimension or sub-dimension. For followers who rated males as more deserving of status \((n = 48)\), there was a main effect of objective performance on the \textit{growth} sub-dimension of strategic leadership \((\gamma_{02} = .09, t = 1.89, p < .05)\), such that leaders were evaluated more favorably when objective performance was high. There was a significant interaction between objective performance and leader gender on \textit{growth} ratings \((\gamma_{03} = .23, t = 2.59, p < .05\); see Figure 1), such that female leaders’ behaviors were evaluated more negatively than male leaders’ when objective performance was low. A test of contrasts analysis revealed that male and female leaders were rated significantly different from each other when objective performance was low \((\text{coefficient} = 0.41, t = 3.90, p < .001)\), but were not significantly different when objective performance was high. For the purposes of
graphing the interaction, objective performance was dichotomized (i.e., one standard deviation above and below the mean; see Figure 1). Hypothesis 3 was partially supported.

Hypothesis 4 stated that leader gender would moderate the relationship between objective workgroup performance and subjective leader evaluations where raters’ implicit leadership theories included “male” as a characteristic of leaders, operationalized here as a high score (i.e., above 4.5). A masculinity score was considered high if it was greater than or equal to one standard deviation above the mean masculinity score on the masculinity dimension. Results indicated that when raters scored high on the masculinity dimension ($n = 23$), there was a significant interaction between leader gender and objective performance for the direction sub-dimension of strategic leadership ($\gamma_{03} = 0.18, t = 2.12, p < .05$; see Figure 2), such that female leaders’ behaviors were rated more negatively than males when objective performance was low. A test of contrasts analysis revealed that males and females were not rated significantly different from each other when objective performance was low or high (defined as described above). Hypothesis 4 was partially supported.

For hypotheses 5 and 6, a MANOVA was used to assess whether either male or female leaders received higher ratings on the dimensions of forceful, enabling, and operational leadership, as well as their corresponding sub-dimensions. Hypothesis 5 predicted that male leaders will be rated higher than female leaders on task-oriented (forceful and operational) leadership and hypothesis 6 predicted that female leaders will be rated higher than male leaders on relations-oriented (enabling) leadership. A one-way MANOVA revealed a significant multivariate main effect of leader gender on the takes charge sub-
dimensions of forceful leadership, Wilks’ $\lambda = 8.54$, $F (15, 62) = 4.25$, $p < .05$, and partial eta squared $= .053$. Power to detect this effect was .63. Results of the one-way MANOVA revealed non-significant findings for enabling leadership, operational leadership, and their corresponding sub-dimensions. Hypothesis 5 is partially supported and hypothesis 6 is not supported.

**Discussion**

As described earlier, women are underrepresented in executive levels of leadership relative to men. This study’s main goal was to examine possible mechanisms that could contribute to this phenomenon and I attempted to do so by examining perceptions of male and female leaders at lower levels.

Results suggested that, in the full sample, leader gender did not affect the relationship between objective performance and subjective performance. However, among raters who assigned higher status to men, the interaction was significant for the growth sub-dimension of strategic leadership. Specifically, female leaders’ behaviors were evaluated more negatively than male leaders when objective performance was low. On the other hand, when objective performance was high, both male and female leaders were rated similarly on growth ratings.

This discrepancy also held true for raters who associated “leader” with “male.” When individuals scored high on the masculinity dimension of the ILTs scale, leader gender moderated the relationship between objective performance and subjective evaluations for the direction sub-dimension of strategic leadership. When objective performance was low,
female leaders’ behaviors were rated more negatively than male leaders. When objective performance was high, male leaders were again rated more positively than female leaders.

One reason as to why leader gender did not moderate this relationship may be because, contrary to what was expected, this study did not find a widespread relationship between objective workgroup performance and subjective ratings. This was the first study to look at the relationship between objective performance and subjective evaluations of leaders. Perhaps there would have been a stronger objective-subjective relation if these data were collected from a single organization. Collecting from a single organization may provide a more consistent measure of performance in future research.

The second goal of this study was to pit tokenism theory, implicit leadership theories, and status characteristics theory against each other by testing them directly. Based on this study’s findings, status characteristics theory and implicit leadership theories were only somewhat supported as explanations for the moderation of the objective-subjective performance relation by leader gender. Significant findings associated with status characteristics theory are consistent with previous literature (e.g., Berger et al., 1995; Ridgeway 2001), but only when employees viewed males higher in status. Significant findings associated with implicit leadership theories, specifically those raters who expected leaders to be masculine or male, are also consistent with past research (e.g., Lord & Emrich, 2001; Schein, 2007). By extension, because “think leader-think male” ILTs were operating for a number of individuals, these findings are at least inconsistent with behavioral stereotypes, social role theory, and role congruence theory. More specifically each of those
theories depends upon raters associating the concept of “leader” with the concept of “male,” in cases of which this study found an effect for leader gender. Although findings provided partial support for ILTs and status characteristics theory, the results of this study did not provide support for tokenism theory. This study showed that when women are considered to be of token status in an organization, their subjective ratings are not significantly influenced by their gender. These findings are inconsistent with past literature, wherein subordinates have been shown to evaluate token group members more negatively than non-token members (Schmitt et al., 2009). One possible explanation for this may relate to women’s tenure in their organizations. Heilman (1983) found that the longer a woman works in a company and the more she interacts with others, the less salient her gender becomes, and other factors (e.g., success) begin to carry more importance. Another explanation for this may be that the effects of tokenism due to gender are simply not as strong as they have been in the past. In a recent study by Stroshine and Brandl (2011), findings showed that both white females and black females experienced fewer effects of tokenism than black males. It may be that the effects of tokenism are more salient with regard to race and ethnicity than gender.

Contrary to expectations based on gender stereotypes, leader gender was unrelated to subjective ratings for most dimensions or sub-dimensions of leadership performance. The only sub-dimension where there were significant differences between male and female leaders was the takes charges sub-dimension of forceful leadership. These results are consistent with previous research finding little or no difference between males and females in their leadership behavior (e.g., Eagly & Carli, 2007; Eagly et al., 1992). It is interesting to
note that although these findings are consistent with the literature on leader behaviors, these results are inconsistent with previous research on stereotypes (e.g., Eagly & Johnson, 1990). Males and females were expected to exhibit different styles of leadership (i.e., task-oriented and relations-oriented), but their subordinates’ ratings did not reflect these differences.

**Practical Implications**

The findings of this study suggest that organization members should be aware of potential biases they may be introducing into evaluations of their supervisors. Gender bias still exists today (i.e., some individuals believe males deserve higher status in their organizations and some see the prototypical leader as a male figure), and women may face more evaluation bias depending on whether or not their subordinates hold these partialities.

It is possible that gender bias could be a contributing factor in promotions. As stated previously, Stroh et al. (1992) have suggested that female managers’ salaries and promotion rates lag behind those of male managers. In cases of promotions and career advancement, supervisors should consider basing their decisions at least partly on measures of objective performance rather than relying only on subjective evaluations. Subjective evaluations may provide additional useful information and could still be used in the decision making process, but not exclusively.

However, for individuals who do not hold these prejudices, the overall findings of this study suggest that male and female leaders were not rated differently on their subjective evaluations. New statistics have shown that women are even gaining momentum in the corporate world and filling more high level positions. In just the past couple of years, the
number of female CEOs of Fortune 500 companies has climbed to a record 4%, more than half of whom were appointed within that past year (Howard, 2012).

**Changes for Women in Leadership**

New research has shown that the state of the entire company may predict whether females are actually the preferred leader during a given period of time. Ryan, Haslam, Hersby, and Bongiorno (2011) found that when companies are performing poorly, female leaders are preferred over male leaders. Perhaps some companies in this sample may have preferred male leaders and other companies preferred female leaders, depending on the overall context of the organization. In addition, it may be the case that perceptions of female leaders are beginning to change. A recent study by Elsesser and Lever (2011) found that male subordinates evaluated their female leaders more positively than male leaders, whereas female subordinates evaluated their male leaders more positively than female leaders. Interestingly, these perceptual shifts coincide with the changing CEO statistics.

**Limitations and Future Research**

There were some limitations which were associated with this study. A greater number of male leaders participated than females leaders, and in a study looking at gender differences, more female leaders would have been desirable. Another possible limitation of this study is that these data were not collected from a single organization, which may have affected the measurement of objective performance, in turn affecting the relationship between objective and subjective performance. Instead, different types of organizational performance measures were collected (e.g., revenue growth goals, sales growth goals, and
overall sales goals). In an effort to correct for this issue and have all of the objective performance measures on a common metric, all objective performance data were collected in the form of a percentage. In addition, companies that don’t measure performance objectively were excluded from this study; perhaps those companies would have showed stronger bias effects in subjective evaluations of performance. A final limitation is that data were collected from fewer raters per manager than originally anticipated. More raters per managers might have reduced error variance in the study variables that were calculated from the mean raters’ responses, possibly increasing power to detect small effects.

Future research should be conducted in order to further investigate the ILT related theories, mainly social role theory, role congruence theory, and behavioral stereotypes. In addition, researchers may want to address additional predictors, and their relationship with leader gender, such as rater personality. Leader tenure may also be an interesting variable to examine, given the findings by Heilman (1983). It might be interesting to consider the leader gender and objective performance interaction cross-culturally as well, due to the fact that there are currently many women in powerful leadership positions (e.g., CEOs, Presidents) across the globe (Howard, 2012). Future research may also want to examine the relationship between objective performance and subjective evaluations over time.
References


Heilman, M. E. (1983). Sex bias in work settings: The lack of fit model. In B. Staw and
L. Cummings (Eds.), Research in organizational behavior (Vol. 5). Greenwich, CT: JAI.


Table 1

Means, Standard Deviations, Reliabilities, and Intercorrelations among Study Variables

| Variable              | M    | SD  | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17   | 18   |
|-----------------------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1. Leader Gender      | .70  | .46 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2. Forceful Leadership| 3.22 | .52 | .19  | .92  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 3. Takes Charge       | 3.21 | .60 | .23* | .86**| .82  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 4. Declares           | 3.16 | .62 | .12  | .90**| .69**| .83  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 5. Pushes             | 3.23 | .62 | .22  | .86**| .71**| .65**| .82  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 6. Enabling Leadership| 3.35 | .47 | .10  | .74**| .70**| .64**| .63**| .86  |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 7. Empowers           | 3.37 | .60 | .05  | .64**| .55**| .63**| .44**| .91**| .89  |      |      |      |      |      |      |      |      |      |      |      |      |
| 8. Listens            | 3.26 | .54 | .02  | .58**| .52**| .55**| .42**| .84**| .61**| .74  |      |      |      |      |      |      |      |      |      |      |      |
| 9. Supports           | 3.43 | .50 | .19  | .56**| .61**| .38**| .59**| .81**| .43**| .53**| .78  |      |      |      |      |      |      |      |      |      |      |
| 10. Strategic Leadership| 3.39 | .48 | .10  | .58**| .60**| .47**| .50**| .65**| .48**| .40**| .67**| .91  |      |      |      |      |      |      |      |      |      |
| 11. Direction         | 3.40 | .52 | .12  | .57**| .61**| .51**| .48**| .90**| .43**| .40**| .58**| .90**| .82  |      |      |      |      |      |      |      |      |
| 12. Growth            | 3.35 | .50 | .10  | .53**| .51**| .38**| .43**| .92**| .46**| .27**| .56**| .92**| .73**| .72  |      |      |      |      |      |      |      |

Notes: Coefficient alphas are located along the diagonal. *p < .05, **p < .01
<table>
<thead>
<tr>
<th>Variable</th>
<th>$M$</th>
<th>$SD$</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Innovation</td>
<td>3.40</td>
<td>.55</td>
<td>.11</td>
<td>.53**</td>
<td>.57**</td>
<td>.41**</td>
<td>.51**</td>
<td>.94**</td>
<td>.44**</td>
<td>.42**</td>
<td>.73**</td>
<td>.94**</td>
<td>.78**</td>
<td>.83**</td>
<td>.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Operational</td>
<td>3.41</td>
<td>.46</td>
<td>.15</td>
<td>.62**</td>
<td>.62**</td>
<td>.48**</td>
<td>.53**</td>
<td>.67**</td>
<td>.55**</td>
<td>.53**</td>
<td>.57**</td>
<td>.58**</td>
<td>.62**</td>
<td>.42**</td>
<td>.55**</td>
<td>.90</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Execution</td>
<td>3.37</td>
<td>.55</td>
<td>.10</td>
<td>.57**</td>
<td>.62**</td>
<td>.42**</td>
<td>.52**</td>
<td>.66**</td>
<td>.51**</td>
<td>.47**</td>
<td>.64**</td>
<td>.66**</td>
<td>.69**</td>
<td>.46**</td>
<td>.58**</td>
<td>.85**</td>
<td>.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Efficiency</td>
<td>3.40</td>
<td>.50</td>
<td>.17</td>
<td>.52**</td>
<td>.51**</td>
<td>.45**</td>
<td>.43**</td>
<td>.49**</td>
<td>.53**</td>
<td>.44**</td>
<td>.43**</td>
<td>.48**</td>
<td>.27*</td>
<td>.46**</td>
<td>.90**</td>
<td>.61**</td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Order</td>
<td>3.46</td>
<td>.52</td>
<td>.16</td>
<td>.52**</td>
<td>.50**</td>
<td>.40**</td>
<td>.45**</td>
<td>.42**</td>
<td>.46**</td>
<td>.40**</td>
<td>.42**</td>
<td>.46**</td>
<td>.28*</td>
<td>.42**</td>
<td>.91**</td>
<td>.62**</td>
<td>.80**</td>
<td>.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Objective</td>
<td>.98</td>
<td>.17</td>
<td>.15</td>
<td>.31**</td>
<td>.25*</td>
<td>.36**</td>
<td>.28*</td>
<td>.23*</td>
<td>.20</td>
<td>.16</td>
<td>.23*</td>
<td>.24*</td>
<td>.26*</td>
<td>.27*</td>
<td>.21</td>
<td>.19</td>
<td>.22</td>
<td>.15</td>
<td>.19</td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Coefficient alphas are located along the diagonal. *$p < .05$, **$p < .01$
### Table 2

**Within-Leader and Between-Leader Variance Accounted for by each Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>Hypothesis 1 Male Tokens</th>
<th>Hypothesis 1 Female Tokens</th>
<th>Hypothesis 2 Male Tokens</th>
<th>Hypothesis 2 Female Tokens</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R^2 Between</td>
<td>R^2 Within</td>
<td>R^2 Between</td>
<td>R^2 Within</td>
</tr>
<tr>
<td>Forceful Leadership</td>
<td>15.41%</td>
<td>7.14%</td>
<td>10.54%</td>
<td>8.36%</td>
</tr>
<tr>
<td>Takes Charge</td>
<td>20.56%</td>
<td>17.85%</td>
<td>6.77%</td>
<td>4.58%</td>
</tr>
<tr>
<td>Declares</td>
<td>17.34%</td>
<td>34.74%</td>
<td>10.91%</td>
<td>3.41%</td>
</tr>
<tr>
<td>Pushes</td>
<td>13.58%</td>
<td>7.14%</td>
<td>11.81%</td>
<td>19.18%</td>
</tr>
<tr>
<td>Enabling Leadership</td>
<td>17.73%</td>
<td>18.21%</td>
<td>20.85%</td>
<td>17.60%</td>
</tr>
<tr>
<td>Empowers</td>
<td>15.10%</td>
<td>5.09%</td>
<td>27.99%</td>
<td>19.13%</td>
</tr>
<tr>
<td>Listens</td>
<td>6.03%</td>
<td>4.55%</td>
<td>25.45%</td>
<td>11.22%</td>
</tr>
<tr>
<td>Supports</td>
<td>16.38%</td>
<td>24.75%</td>
<td>16.60%</td>
<td>12.29%</td>
</tr>
<tr>
<td>Strategic Leadership</td>
<td>14.00%</td>
<td>9.53%</td>
<td>14.83%</td>
<td>12.57%</td>
</tr>
<tr>
<td>Direction</td>
<td>21.83%</td>
<td>26.67%</td>
<td>17.45%</td>
<td>10.04%</td>
</tr>
<tr>
<td>Growth</td>
<td>8.33%</td>
<td>23.08%</td>
<td>9.26%</td>
<td>14.80%</td>
</tr>
<tr>
<td>Innovation</td>
<td>26.71%</td>
<td>13.64%</td>
<td>15.77%</td>
<td>12.61%</td>
</tr>
<tr>
<td>Operational Leadership</td>
<td>22.50%</td>
<td>5.56%</td>
<td>24.40%</td>
<td>14.51%</td>
</tr>
<tr>
<td>Execution</td>
<td>14.29%</td>
<td>4.04%</td>
<td>21.27%</td>
<td>20.91%</td>
</tr>
<tr>
<td>Efficiency</td>
<td>19.63%</td>
<td>5.73%</td>
<td>21.05%</td>
<td>11.27%</td>
</tr>
<tr>
<td>Order</td>
<td>23.33%</td>
<td>15.24%</td>
<td>16.81%</td>
<td>15.29%</td>
</tr>
</tbody>
</table>
Table 2 (Continued)

**Within-Leader and Between-Leader Variance Accounted for by each Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>Hypothesis 3</th>
<th>Hypothesis 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High Male Status</td>
<td>High Female Status</td>
</tr>
<tr>
<td></td>
<td>R² Between</td>
<td>R² Within</td>
</tr>
<tr>
<td>Forceful Leadership</td>
<td>12.82%</td>
<td>7.88%</td>
</tr>
<tr>
<td>Takes Charge</td>
<td>12.95%</td>
<td>10.93%</td>
</tr>
<tr>
<td>Declares</td>
<td>24.73%</td>
<td>7.33%</td>
</tr>
<tr>
<td>Pushes</td>
<td>12.57%</td>
<td>10.43%</td>
</tr>
<tr>
<td>Enabling Leadership</td>
<td>18.80%</td>
<td>8.66%</td>
</tr>
<tr>
<td>Empowers</td>
<td>20.88%</td>
<td>11.88%</td>
</tr>
<tr>
<td>Listens</td>
<td>21.57%</td>
<td>9.01%</td>
</tr>
<tr>
<td>Supports</td>
<td>6.20%</td>
<td>3.04%</td>
</tr>
<tr>
<td>Strategic Leadership</td>
<td>11.34%</td>
<td>7.48%</td>
</tr>
<tr>
<td>Direction</td>
<td>10.15%</td>
<td>4.72%</td>
</tr>
<tr>
<td>Growth</td>
<td>13.63%</td>
<td>5.38%</td>
</tr>
<tr>
<td>Innovation</td>
<td>18.53%</td>
<td>6.80%</td>
</tr>
<tr>
<td>Operational Leadership</td>
<td>17.41%</td>
<td>10.49%</td>
</tr>
<tr>
<td>Execution</td>
<td>14.86%</td>
<td>13.86%</td>
</tr>
<tr>
<td>Efficiency</td>
<td>14.20%</td>
<td>6.57%</td>
</tr>
<tr>
<td>Order</td>
<td>15.88%</td>
<td>12.77%</td>
</tr>
</tbody>
</table>
Table 3

*Effects of Leader Gender on Subjective Ratings*

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Female Leaders</th>
<th>Male Leaders</th>
<th>F (15,62)</th>
<th>p</th>
<th>$\eta^2_p$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N = 26</strong></td>
<td></td>
<td>N = 62</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forceful Leadership</td>
<td>3.16 0.56</td>
<td>3.36 0.43</td>
<td>3.253</td>
<td>.075</td>
<td>.041</td>
</tr>
<tr>
<td><strong>Takes Charge</strong></td>
<td>3.12 0.63</td>
<td>3.42 0.48</td>
<td>4.245</td>
<td>&lt;.05</td>
<td>.053</td>
</tr>
<tr>
<td><strong>Declares</strong></td>
<td>3.11 0.63</td>
<td>3.27 0.58</td>
<td>1.054</td>
<td>.308</td>
<td>.014</td>
</tr>
<tr>
<td><strong>Pushes</strong></td>
<td>3.13 0.68</td>
<td>3.42 0.44</td>
<td>3.807</td>
<td>.055</td>
<td>.048</td>
</tr>
<tr>
<td>Enabling Leadership</td>
<td>3.32 0.49</td>
<td>3.42 0.42</td>
<td>.950</td>
<td>.333</td>
<td>.012</td>
</tr>
<tr>
<td><strong>Empowers</strong></td>
<td>3.34 0.59</td>
<td>3.41 0.62</td>
<td>.197</td>
<td>.658</td>
<td>.003</td>
</tr>
<tr>
<td><strong>Listens</strong></td>
<td>3.26 0.57</td>
<td>3.28 0.47</td>
<td>.022</td>
<td>.884</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Supports</strong></td>
<td>3.36 0.53</td>
<td>3.56 0.41</td>
<td>2.991</td>
<td>.088</td>
<td>.038</td>
</tr>
<tr>
<td>Strategic Leadership</td>
<td>3.36 0.48</td>
<td>3.46 0.47</td>
<td>1.065</td>
<td>.305</td>
<td>.014</td>
</tr>
<tr>
<td><strong>Direction</strong></td>
<td>3.37 0.51</td>
<td>3.49 0.54</td>
<td>1.013</td>
<td>.317</td>
<td>.013</td>
</tr>
<tr>
<td><strong>Growth</strong></td>
<td>3.31 0.52</td>
<td>3.41 0.48</td>
<td>.739</td>
<td>.393</td>
<td>.010</td>
</tr>
<tr>
<td><strong>Innovation</strong></td>
<td>3.35 0.56</td>
<td>3.48 0.53</td>
<td>1.049</td>
<td>.309</td>
<td>.014</td>
</tr>
<tr>
<td>Operational Leadership</td>
<td>3.37 0.44</td>
<td>3.51 0.5</td>
<td>1.848</td>
<td>.178</td>
<td>.024</td>
</tr>
<tr>
<td><strong>Execution</strong></td>
<td>3.33 0.54</td>
<td>3.45 0.56</td>
<td>.840</td>
<td>.362</td>
<td>.011</td>
</tr>
<tr>
<td>Efficiency</td>
<td>3.37 0.49</td>
<td>3.51 0.49</td>
<td>2.044</td>
<td>.157</td>
<td>.026</td>
</tr>
<tr>
<td><strong>Order</strong></td>
<td>3.40 0.46</td>
<td>3.57 0.6</td>
<td>1.674</td>
<td>.200</td>
<td>.022</td>
</tr>
</tbody>
</table>
Figure 1. Interaction between leader gender and objective performance on the *growth* sub-dimension of strategic leadership.

Figure 2. Interaction between leader gender and objective performance on the *direction* sub-dimension of strategic leadership.
APPENDICES
Appendix A

Thesis Proposal Manuscript

THE EFFECT OF LEADER GENDER ON THE RELATION BETWEEN WORKGROUP PERFORMANCE AND SUBJECTIVE PERCEPTIONS OF LEADER EFFECTIVENESS

by

Alexandra K. Mullins

A thesis submitted to the Graduate Faculty of North Carolina State University in partial fulfillment of the requirements for the degree of Master of Science

Psychology

Raleigh, North Carolina

2010

APPROVED BY:

__________________________________________
Dr. Lori Foster Thompson

__________________________________________
Dr. Mark A. Wilson

__________________________________________
Dr. S. Bartholomew Craig
Chair of Advisory Committee
The Effect of Leader Gender on the Relation Between Workgroup Performance and Subordinate Perceptions on Leader Effectiveness

The Importance of Leadership in Organizations

Leadership plays a critical role in organizations. Leadership has been defined as the capability to successfully guide a group of individuals toward a common goal or purpose (Riggio, 2000). Leadership typically consists of behaviors which influence, motivate, organize, and coordinate employees’ work (Eagly & Carli, 2007). Not all leaders are equally effective at providing such guidance, so organizations spend billions of dollars annually on leadership development in an attempt to help people become better leaders (Riggio, 2008).

In addition to their obvious role in directing work activities, leaders have the ability to influence employees (e.g., attitudes and mental health) and the organization itself (e.g., climate and culture). Leaders can help increase employees’ sense of empowerment by giving them autonomy and support in their work (Riggio, 2000). They reduce employee stress by acting as “shock absorbers” during organizational change as well as acting to maintain employee trust (Skagert, Dellve, Eklof, Poussette, & Ahlborg Jr., 2008). Increasing employee confidence and decreasing employee stress can aid in creating an industrious work environment (Riggio, 2000). Leaders often have the authority to make decisions affecting various dimensions of organizational climate and culture, such as organizational change, policy, and employee structure. Leaders are usually those who make the important decisions regarding policy additions or changes, organizational restructure, hiring, laying off
employees, etc. (Westaby, Probst, & Lee, 2010). Ultimately, much of an organization’s success rests in the hands of its leaders (Tichy & Bennis, 2007).

**Disparities Between Male and Female Leaders**

For years, statistics have shown that men make more money than women, even when holding the same job position (Eagly & Carli, 2007). Stroh, Brett, and Reilly (1992) suggest that female managers’ salaries and career advancement rates are behind those of male managers. Women are less likely to hold high ranking positions in organizations and also less likely to be offered promotions (Eagly & Carli, 2007). In 2009, a survey reported that women accounted for only 13.5% of the executive officer positions in the United States (Catalyst, 2010). In fact, almost 30% of corporations have no women in such positions. Even though these statistics look bleak, the number of women in executive officer positions has increased within the past 15 years. Chief executive officer (CEO) positions held by women have increased from 0% to a mere 3% (Catalyst, 2010). Although we might suspect that differential representation of genders by organization type contributes to these numbers, research shows no advantage toward advancement for women in female, over male, dominated fields (Eagly & Carli, 2007). Though women are underrepresented in executive positions, this study will not directly address the underrepresentation of females at executive levels. Rather, the current study will examine issues related to the evaluation of female leaders’ performance that may be relevant to why this phenomenon is occurring at higher-ranking positions.
In addition to the gender discrepancy in executive positions, there can be no doubt that, in many respects, women differ from men. The apparent differences between the sexes have resulted in the formation of gender stereotypes. Women are commonly expected to behave in a communal manner (e.g., concerned with the care of others), while men are often associated with assertive and controlling behaviors, known as agenticism (Eagly & Sczesney, 2009). These stereotypes carry over into work roles and affect which job positions are perceived to be more suitable for females and which positions are perceived to be more suitable for males. Since people believe that women behave differently than men, they likewise believe that women should hold different jobs than men in the workplace (Ridgeway, 1992).

When men and women are in leadership positions, are their leadership behaviors really different? Helfat, Harris, and Wolfson (2006) contend that relatively little is known about comparisons between women and men in upper management, particularly at the CEO level. However, researchers have posited that male and female leaders display few behavioral differences, for the most part (Morrison, White, & Van Velsor, 1987). Despite a lack of evidence for significant behavioral differences, prior research suggests that observers rate male leaders more positively than female leaders (Eagly & Carli, 2007; Eagly, Makhijani, & Klonsky, 1992).

**Negative evaluations of female leaders.** Meta-analytic research (e.g., Eagly et al., 1992) suggested that, overall, women were more likely than men to be evaluated negatively when in positions of leadership, when occupying a stereotypical male work role, or adopting
a more masculine style of leadership. Women leaders were also found to be less favorably evaluated by male subordinates when using assertive speech or expressing anger (Glomb & Hulin, 1997; Lewis, 2000). Even when the same behaviors were carried out by both men and women, women were evaluated more negatively and perceived to be less valuable by male subordinates (Eagly et al., 1992). Gender bias was found to have a profound negative effect on performance evaluations and professional advancement of women in organizations. Overall, female leaders tend to encounter greater obstacles to advancement and performance than males in the same position (Lyness & Heilman, 2006).

**Positive evaluations of female leaders.** Female leaders may be evaluated positively dependent upon leadership style and organizational performance. These positive evaluations are not held as the norm, but they do occur in certain contexts. Research suggests that women are likely to be evaluated positively when they adopt a feminine style of leadership (e.g., democratic toward employees or considerate of employee well-being; Eagly et al., 1992; Eagly & Carli, 2003). In fact, female leaders are rated as high as male leaders when both sexes adopt feminine leadership (Eagly et al., 1992). Moreover, depending on the company’s financial performance (e.g., either prospering or declining), women are more often sought for leadership positions and evaluated positively in times of lower organizational performance, although this tendency also places them at greater risk for failure (Haslam & Ryan, 2008).

It is important to understand why subjective leader evaluations are commonly used to assess leader performance, as well as to understand how other factors (e.g., gender) can influence these evaluations. Although performance ratings typically include a high level of
subjectivity, subjective evaluations are common in the workplace (Moers, 2005). Ratings from subordinates have been argued to be the most reliable subjective indicators of leader performance because leaders interact more regularly with subordinates than superiors or peers (Hogan, Curphy, & Hogan, 1994; Mount, 1984); therefore, subordinates are likely to know more about leaders’ performance-related behaviors. Furthermore, leaders may not always have superiors or peers, depending on their location in the organization’s structure, but are guaranteed to always have subordinates (Hogan et al., 1994).

Gender has been found to affect performance evaluations. Moers (2005) claims that, in general, subjective ratings lead to gender bias in performance evaluations. Jonnergard, Stafsud, and Elg (2010) support this notion of bias by arguing that indicators of good performance tend to be based on male norms. Gender also influences how these performance evaluations are perceived by the individual who is being evaluated. Men and women attach more importance to different parts of the evaluations. Women are more concerned with who is evaluating them (e.g., subordinates, peers, superiors), while men tend to focus on what is being evaluated (e.g., performance, leadership effectiveness; Jonnergard et al., 2010). In an effort to examine gender’s influence on subjective evaluations in the current study, objective measures will also be used to measure leader performance.

Although subjective evaluations of leaders are often convenient, their relationship with other performance criteria is not well understood. Prior research has not investigated how the relationship between objective workgroup performance and coworkers’ perceptions of leaders might vary with gender. In the current study, objective performance refers to
workgroup performance criteria (e.g., unit profit, revenue growth, percent of financial goals hit) that exist independent of subjective perception. One might expect a positive relationship between objective measures and subjective measures. Past research has suggested that objective measures and subjective measures of company performance are correlated (Gonzalez-Benito & Gonzalez-Benito, 2005; Jaworski & Kohli, 1993); however, this issue has primarily been examined in the context of market orientation and company competitors and does not address the form of the relationship between objective and subjective evaluations of leaders (Lyness & Heilman, 2006).

In addition to allowing for examination of their relation, having more than one mode of measurement (e.g., objective performance and subjective evaluations) of leader performance contributes to increased accuracy of assessments. Jaworski and Kohli (1996) point out that the emphasis on subjective evaluations has been a limitation of past research. Possible reasons for this could be that managers are hesitant to release performance data they feel are confidential, subjective measures may be more suitable when comparing cross-industry performance, and objective measures may not even accurately describe the financial condition of the organization (Dess & Robinson, 1984). The current study seeks to use subjective measures of performance in conjunction with objective measures to examine the relation between them and examine how this relationship might be moderated by leader gender.
Theoretical Explanations for Disparities

Interestingly, research on gender differences and leadership style has not typically been driven by theories about gender’s impact on leadership. In fact, of the studies not explicitly based on a specific theory, gender theories are often not even mentioned until results or discussion sections of journal articles (Ayman, Korabik, & Morris, 2009). In essence, these theories have not truly been tested as explanations for existing disparities. There are a number of theories that, when tested, could provide explanations for disparities likely to be seen in male and female leader evaluations. Among these theories are: tokenism theory (Kanter, 1977), status characteristics theory (Berger, Fisek, Norman & Wagner, 1985), stereotype-related theories [including individuals’ implicit leadership theories (Lord & Maher, 1993), behavioral stereotypes (Eagly & Johnson, 1990), social role theory (Eagly, 1987), role congruence theory (Eagly & Karau, 2002)], and transformational leadership theory (Bass & Avolio, 1993).

Tokenism theory. As developed by Kanter (1977), tokenism theory is not specific to gender, but can apply to any sort of minority subgroup (e.g., race). For the purposes of this study, tokenism will be discussed with regard to gender and it is assumed that females are tokens in leadership settings more often than males are, although males may be tokens in some cases. Tokenism theory divides groups into “tokens” and “non-tokens” or dominants. Tokens are defined as the representative minority group, or more specifically, a group that constitutes less than 15% of a given population (Kanter, 1977). For example, when women constitute less than 15% of the workplace, women are assumed to have a token status.
Further, being a member of the minority comes with its consequences. According to Kanter (1977), these consequences include the following: (1) strained performance by tokens, resulting from feeling that they are constantly in the spotlight and not blending in with the rest of the dominant group; (2) strained communication, resulting from the dominant group not knowing how to treat the tokens; (3) stereotyping of the tokens by the dominant group and only accepting behaviors that are in harmony with the token group’s stereotyped role. If the token does not adhere to the expected role, then he or she is more likely to be evaluated negatively by others. However, meta-analytic research found that token female leaders were more likely to adopt a masculine style of leadership in an effort to maintain authority (Eagly & Johnson, 1990). Peers and subordinates generally evaluate token group members in more negatively (Schmitt, Spoor, Danaher, Branscombe, 2009).

Kanter (1977) further suggested that token female leaders behave differently toward their subordinates than dominant male leaders behave, because of the implications of token status. Token leaders feel that they are constantly under pressure and responsible for representing their gender well in the organization. Token leaders may cope with such pressures by socially isolating themselves or striving for maximum performance and achievement (Kanter, 1977). Token female leaders have been found to behave differently than female leaders among a female-dominated workforce (Johnson, 1992). But token men do not seem to show this same pattern. Token men in female-dominated organizations are granted faster career advancement than women in both female-dominated and male-dominated fields (Eagly & Carli, 2007).
**Status characteristics theory.** Status characteristics theory suggests that a person’s sex is a status characteristic (i.e., high or low status; Berger et al., 1985). Simply put, on this view the male status is viewed as more respected than the female status (Berger et al., 1985; Ridgeway, 1992). Status may, in turn, affect the leader’s self-esteem and even how he or she interacts with subordinates. Leaders may interact differently with subordinates in a female-dominated organization compared to a male-dominated organization because the female leader may feel less anxiety leading a group of females. According to this view, the female leader does not feel inferior to her female subordinates, therefore also feeling more positive about the interaction. Research suggests that a primary component affecting the nature of the leader-subordinate interaction is the gender of the leader (Johnson, 1992).

In situations where both men and women are present (e.g., a business meeting), this theory suggests that men will be awarded more power, allowed more time to talk, and also have their ideas taken more seriously (Ridgeway, 2001; Watson & Hoffman, 2004). In similar situations, women’s expectations for themselves are likely to be affected solely because of their gender’s status. Others who view the status of gender as relevant are also likely to form their own expectations. Research has shown that women whose roles are not congruent with their status (i.e., being a female leader) will be given lower evaluations as well as lower attributions of ability and influence; further, they will have a lower likelihood of even becoming a leader (Watson & Hoffman, 2004).

**Implicit leadership theories.** Lord and Maher (1993) proposed that people hold general ideas about the traits and behaviors of leaders and even what a leader should look
like; these ideas are known as implicit leadership theories. If a leader possesses traits that are not part of an observer’s leader prototype, or that leader fails to exhibit those traits that are a part of the prototype, that leader may be evaluated negatively by the observer. An individual’s leader prototype often includes (but is not limited to) expectations about race, gender, and ethnicity (Lord & Emrich, 2001). Leader expectations also range from external to internal attributes; leader prototypes have been suggested to vary across eight dimensions: sensitivity, dedication, tyranny, charisma, attractiveness, masculinity, intelligence, and strength (Epitropaki & Martin, 2004; Offermann, Kennedy, & Wirtz, 1994). Perceivers are likely to make assumptions about leaders based on whether the leaders possess prototypical traits (Lord & Emrich, 2001). Research shows that organization members hold the view that managerial jobs are more male typed, and that the concepts of “men” and “managers” are more consistently linked than the concepts of “women” and “managers.” This view has persisted for the past 30 years (Schein, 1973; Schein, 2005).

Three additional theories have various propositions that may also explain why perceptions differ for male and female leaders. These theories all relate to the notion of implicit leadership theories in that, if a perceiver believes that the prototypical leader is male, then by implication the perceiver is also more likely to hold other, related, beliefs about the unsuitability of females for the role of leader. The following theories all posit such beliefs, about characteristics of females (behavioral stereotypes; Eagly & Johnson, 1990), what constitutes appropriate female behavior (social role theory; Eagly, 1987), and what
constitutes appropriate leader behavior (role congruence theory; Eagly & Karau, 2002). These theories will now be discussed in more depth.

**Behavioral stereotypes.** Eagly and Johnson’s meta-analysis (1990) suggested that male and female leaders were likely to perform gender-stereotypical behaviors. The meta-analysis found that women in leadership roles tended to have a person-oriented (i.e., focused on interpersonal relationships with employees) style of leadership, while men tended to have a task-orientation (i.e., focused on the work task; Eagly & Johnson, 1990; Riggio, 2000). Although these differences between male and female leaders have been documented, they are not large in magnitude.

As female leaders act and appear to be primarily concerned with the well-being of their employees, these stereotypes and leadership styles create a “double bind” for these women (Eagly & Carli, 2007, p. 102). As previously mentioned, women are expected to be communal, yet leaders are expected to be agentic. This “double bind” is hypothesized to create dissonance for subordinates, making it more likely that they will resist the female leader in the organization (Eagly & Carli, 2007).

**Social role theory.** Social role theory proposes that men and women are expected to display stereotypical gendered behavior consistent with their roles in society (Eagly, 1987; Watson & Hoffman, 2004). In everyday life, women should appear communal (i.e., helpful and nurturing), while men are to appear agentic (i.e., dominant and confident; Johnson, Murphy, Zewdie, & Reichard, 2008). Society has adopted these behavioral roles, and as such men and women seek to fulfill their designated roles (Cabrera, Sauer, & Thomas-Hunt, 2009;
Watson & Hoffman, 2004). In leadership roles, if a man or woman displays behaviors contradictory to his or her social role (e.g., an assertive female leader or a nurturing male leader), he or she is susceptible to negative evaluations by subordinates (Johnson et al., 2008).

**Role congruence theory.** According to Eagly and Karau (2002), role congruence theory states two forms of bias will emerge as a result of a perceived conflict between a female’s gender and leadership roles. The first form of bias occurs because men are typically viewed as more “fit” to hold leadership positions than women, due to a lack of fit between the role of a leader and role of a woman, resulting in a lower probability of selection into leadership roles for females (Eagly & Karau, 2002; Lyness & Heilman, 2006). The second form of bias results when a woman takes on a leadership role and implements a masculine leadership style. A conflict arises between her gender and leadership roles (Eagly & Karau, 2002; Johnson et al., 2008). Prior research has shown that when either form of bias is present, a female leader will be perceived as deviant and evaluated negatively because her roles are incongruent (Watson & Hoffman, 2004).

**Transformational leadership theory.** Apart from many of the theories evaluating women leaders negatively, the transformational leadership approach holds somewhat more positive implications for female leaders. Bass and Avolio (1993) suggest that transformational leaders are able to motivate their followers by communicating an inspirational vision of the organization’s future. Transformational leaders also take an avid interest in their employees by showing them respect, facilitating their personal growth and
development, and providing mentoring relationships for their employees (Ayman, Korabik, & Morris, 2009; Bass & Avolio, 1998). Past research has shown that when subordinates evaluated male and female leaders on the dimension of transformational leadership, female employees viewed female leaders as more transformational than male leaders. Male employees did not significantly differ in their ratings given to male or female leaders and evaluated them similarly (Maher, 1997). This research is noted here as support for differences in the perceptions of male and female leaders. However, because this explanation is primarily concerned with mean level of performance and not the relationship between objective and subjective indicators of performance, it will not be a focus of the current study.

Previous research finding differing evaluations of leaders by gender has tended to focus on subjective evaluations of performance. An important and unresearched question is whether male and female leaders perform at different levels in an objective sense, or whether it is only subjective evaluations that are influenced by leaders’ gender. Any of the rationales discussed above could explain differences in the way subordinates evaluate leaders of different genders, but no previous research has examined these explanations with regard to objective performance criteria. Nor has any previous study examined multiple competing explanations at once to determine which best explain observed effects.

The Current Study

As previously stated, this study will not directly address the underrepresentation of females at executive levels, but rather investigate issues related to the evaluation of female leaders’ performance in an effort to contribute to our understanding of why this gender
discrepancy is occurring at the executive level. The proposed study seeks to explore the relationship between objective workgroup performance and subjective evaluations of leaders by subordinates, with particular emphasis on the moderating effect of leaders’ gender. Based on previous findings of a correlation between objective performance and subjective evaluations (Gonzalez-Benito & Gonzalez-Benito, 2005; Jaworski & Kohli, 1993) and that female leaders do not behave significantly differently from male leaders (Morrison et al., 1987; Eagly & Carly, 2007), but yet are evaluated more negatively (Eagly et al., 1992), gender is expected to interact with group performance in influencing followers’ perceptions. Thus, the current study will address the following hypothesis:

**Hypothesis 1:** The relation between objective performance of the workgroup and subjective evaluations of leaders will be moderated by leader gender.

As discussed above, several theories predict that leaders’ gender will influence subjective evaluations by subordinates. Yet these theories also present differing propositions as to the mechanisms underlying this effect. This study intends to disentangle the competing explanations and test tokenism theory, status characteristics theory, and implicit leadership theories further to see which ones are able to explain the existing disparities between evaluations of male and female leaders. No past research has directly compared these theories as competing explanations. Therefore, the current investigation will consider multiple theories in an effort to test the following hypotheses:

**Hypothesis 2:** Consistent with tokenism theory (Kanter, 1977), leader gender will moderate the relationship between objective workgroup performance and subjective
leader evaluations in settings where leaders of either gender occupy fewer than 15% of leadership positions.

**Hypothesis 3:** Consistent with status characteristics theory (Berger et al., 1985), leader gender will moderate the relationship between objective workgroup performance and subjective leader evaluations in settings where members of either gender are rated significantly higher in status than the other.

Regarding hypothesis 4, because of the overlap among the explanations provided by ILTs, behavioral stereotypes, social role theory, and role congruence theory, the latter three explanations cannot logically operate if the ILT explanation is not also operating. That is, if followers do not associate the idea of “male” with the idea of “leader,” then none of the other explanations can be true. Therefore, in this initial investigation only the ILT explanation will be directly tested.

**Hypothesis 4:** Consistent with implicit leadership theories (Lord & Maher, 2003), leader gender will moderate the relationship between objective workgroup performance and subjective leader evaluations in settings where leaders’ raters score high on the masculinity dimension of an implicit leadership theories scale.

Because it has been suggested that male leaders are more likely to exhibit a task-oriented style of leadership and female leaders are more likely to exhibit a relations-oriented style of leadership (Eagly & Johnson, 1990), the following hypotheses are also proposed:
Hypothesis 5: Male leaders will be rated higher than female leaders on forceful and operational leadership.

Hypothesis 6: Female leaders will be rated higher than male leaders on enabling leadership.

Because it is possible that a three-way interaction involving organizational context could mask the two-way interaction between objective work group performance and leader gender, if hypothesis 1 is not supported, hypotheses 2-6 will still be tested.

Method

Participants

This study’s participants will consist of at least 300 employees recruited from hierarchically structured organizations (100 leaders, each rated by at least two observers). Organizations will only be invited to participate if they meet certain criteria. One criterion is organizations must have leaders who regularly interact with subordinates. This requirement is in place to improve accuracy in assessments of subordinates’ evaluations of their leaders. Also, supervisors will be in charge of teams or departments within a given organization such that objective workgroup performance data are available from organizations. Middle managers will be targeted, but lower level management will also be sampled.

Several strategies will be used to identify target organizations for this study. One strategy is to contact North Carolina State University industrial-organizational psychology alumni currently working in organizations (e.g., Glaxosmith-Kline, IBM, and SAS) that might be willing to participate. Another strategy is to contact Research Triangle Park
organizations to see if any would assist in the study. Further, American Society for Training and Development and Conference Board resources will be used to identify organizations that have previously participated in research studies.

Once a list of potential organizations is compiled, I will then attempt to schedule meetings with representatives of each organization to inform them of what will specifically be needed from their organization and employees (e.g., access to archival records, ratings from employees). This meeting will determine whether or not I get final approval to use the organizations in the data collection process. Organizations will be offered a technical report summarizing the study’s results in exchange for their participation. The number of organizations needed for the study will depend on how many workgroups exist within participating organizations and how employees participate in the survey from each organization.

**Procedure**

After the participating organizations are defined, employees will be invited to participate in the survey. The managers being rated will be asked to fill out an informed consent form (see Appendix A-1) acknowledging that archival records of their group’s performance will need to be obtained. Leader participants will be assured that ratings of their performance will remain confidential and their identities will only be used to link their ratings to the performance criteria for their group. Possible measures of objective workgroup performance include: unit profit, revenue growth, change in market share, bonuses received, percent of financial goals hit, etc. These measures will also be dependent upon which
organizations are used. Leader participants will be also asked to complete items related to their demographic characteristics, including age, gender, ethnicity, job title, time in current position, and time in organization (if different from current position).

Potential follower participants will receive an email message (see Appendix A-2). Participants will access the survey through a web link provided in the email. If employees choose to participate, they will be asked to read and confirm a separate informed consent provided at the start of the survey (see Appendix A-3). Follower participants will be assured that all ratings are confidential and responses cannot be linked to raters’ identities by anyone in their organizations. After providing informed consent, follower participants will complete the measures described below.

**Measures**

**Subjective leadership performance.** Subjective evaluations will be assessed using Kaplan and Kaiser’s (2003) Leadership Versatility Index ® (LVI). The LVI is a 360-degree survey which measures leader performance on four dimensions: forceful leadership, enabling leadership, strategic leadership, and operational leadership. Sample items include “[the leader] gives people room to show initiative” (enabling) and “[the leader] gives direction—tells people what to do” (forceful). The LVI is based on the idea that suboptimal performance can result either from leader behaviors being under-done or being over-done. Possible responses for each item range from -4 (*much too little*) to +4 (*much too much*). Scales are internally consistent for forceful and enabling scores (Cronbach’s alpha in the
as well as strategic and operational scores (in the low .80s). The four LVI dimensions will be analyzed separately.

**Implicit leadership theories.** I will assess employees’ implicit leadership theories with a 21-item scale from Epitropaki and Martin (2004). This scale is comprised of six dimensions of ILTs including: sensitivity, intelligence, dedication, dynamism, tyranny, and masculinity, though only masculinity is of concern in the current study. Items for this scale are reported in Appendix A-4. Sample masculinity items are “[A business leader is] masculine” and “[A business leader is] male.” Possible responses for each item range from 1 (not at all characteristic) to 9 (extremely characteristic). Psychometric analyses have found that this scale has adequate reliability (α = .83) and all factors loadings are significant (p < .001) for this scale (Epitropaki & Martin 2004). Coefficient alphas will be reported for all study scales.

**Status conferral.** Status conferral will be assessed with a 4-item scale adapted from Brescoll and Uhlmann (2010). In previous research, this scale assessed the status, power, and independence a potential job candidate deserved at his or her job and whether the participant would hire the job candidate (Brescoll & Uhlmann, 2010). This scale has been shown to be an internally consistent measure (α = .91). The scale has been adapted for the current study to assess the status conferred upon organization members of different genders. A sample item is “How much status do females [males] deserve in your organization?” The complete list of items is reported in Appendix A-5. Possible responses for the first three items will range from 1 (none) to 11 (a great deal). Sample item “If you owned a company, would you ever
hire a female [male] to work for you” will be scored with a similar range from 1 (never) to 11 (definitely).

**Demographic variables.** Demographic variables that will be assessed are: tenure with current supervisor (measured in months), frequency of contact with boss/manager (hourly, daily, weekly, and monthly), age, and participant gender (0 = female, 1 = male).

**Analyses**

**Descriptive statistics.** The means, standard deviations, and intercorrelations of the variables included in the current study will be presented in a table.

**Moderated multiple regression.** Before conducting analyses, the data will be examined for violations of relevant assumptions of multiple regression including: distribution normality, homogeneity of variance, and homoscedasticity (Stone & Hollenbeck, 1989). Analyses will be conducted using SAS or SPSS.

Hypothesis 1, which predicted that the relation between objective performance of the organization and subjective evaluations will be moderated by leaders’ gender, will be tested using moderated multiple regression analysis. The dependent variable will be subjective leader evaluations, with objective workgroup performance, leader gender, and the objective workgroup performance by leader gender interaction as the predictors. Predictors will be centered to reduce effects of multicollinearity (Aiken & West, 1991). If predictor variables have regression weights that are significant at $p < .05$, they will be considered significant predictors of subjective evaluations (Baron & Kenny, 1986). If there is a significant regression weight for the interaction, then there is a significant interaction between objective
workgroup performance and leader gender. Indicating that the relationship of subjective leader evaluations with objective workgroup performance depends on the gender of the leader and providing support for hypothesis 1. A mock regression table is shown here:

TABLE 1.1

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SEb</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective Workgroup Performance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leader Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective X Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. DV: Subjective evaluations of leaders. R^2:

**Subgroup regression.** Hypotheses 2 and 3 will be tested using a subgroup moderated multiple regression method (Stone & Hollenbeck, 1989).

To test hypothesis 2, I will first code organizations according to whether either leader’s gender meets the criterion for token status, operationalized as less than 15% representation. Leader gender will be dummy coded in order to calculate representation rate (e.g., female = 0, male = 1). Organizations will then be divided into three groups: organizations where females are tokens, organizations where males are tokens, and organizations where neither are tokens. Then, moderated multiple regression will be used to analyze the relationship between objective workgroup performance and subjective
evaluations of the leader for each of the 3 subgroups. The dependent variable will be subjective leader evaluations, with objective workgroup performance, leader gender, and the objective workgroup performance by leader gender interaction as the predictors. If predictor variables have regression weights that are significant at \( p < .05 \), they will be considered significant predictors of subjective leader evaluations within that group (Baron & Kenny, 1986). If there is a significant regression weight for the interaction, it will be concluded that there is a significant interaction between objective workgroup performance and leader gender for that group. A significant interaction within groups where either gender is a token will provide support for hypothesis 2. Specifically, if I find that there is a significant objective workgroup performance \( \times \) leader gender interaction in groups where 1) females are tokens and 2) males are tokens, and given lower subjective leader evaluations, this will be interpreted as support for tokenism theory.

To test hypothesis 3, organizations will be divided into three groups: organizations where males were rated higher in status (coded as 1), organizations where females were rated higher status (coded as 2), and organizations where neither gender is rated higher (coded as 0). Moderated multiple regression will be used to analyze the relationships between objective workgroup performance and subjective evaluations of the leaders for each of the three subgroups. The dependent variable will be subjective leader evaluations, with objective workgroup performance, leader gender, and the objective workgroup performance by gender interaction as the predictors. If predictor variables have regression weights that are significant at \( p < .05 \), they will be considered significant predictors of subjective leader
evaluations within that group (Baron & Kenny, 1986). If there is a significant regression weight for the interaction, it will be concluded that there is a significant interaction between objective workgroup performance and leader gender for that group.

If I find that there is a significant objective performance X leader gender interaction in the group where males are rated higher in status with higher subjective evaluations, this will be interpreted as support for status characteristics theory. If I find that there is a significant objective performance X leader gender interaction in the group where females are rated higher in status with lower subjective evaluations, this will also be interpreted as support for status characteristics theory.

Hypothesis #4, which stated that leader gender will moderate the relationship between objective workgroup performance and subjective leader evaluations in settings where leaders’ raters score high on the masculinity dimension of an implicit leadership theories scale, will be tested using moderated multiple regression analysis with a three way interaction. The dependent variable will be subjective evaluations. The predictors will be objective performance, leader gender, follower masculinity ILT score, and the objective performance by leader gender by follower masculinity ILT score as the three way interaction. Variables will be mean centered to reduce the effects of multicollinearity (Aiken & West, 1991). If predictor variables have regression weights that are significant at $p < .05$, they will be considered significant predictors of subjective evaluations (Baron & Kenny, 1986). If there is a significant regression weight for the interaction, then there is a significant interaction between objective workgroup performance, leader gender, and the follower’s
masculinity ILT score. Indicating that the relationship of subjective leader evaluations with objective workgroup performance depends on the gender of the leader and a follower’s masculinity ILT score, which will provide support for hypothesis 4.

Failure to support the ILTs explanation will be interpreted also as failure to support the behavioral stereotypes, social role theory, and role congruence theory explanations. Support for the implicit leadership theories explanation will indicate that those three explanations may also be true, but future research will be needed to disentangle the four related explanations.

Hypotheses 5 and 6 will be analyzed using a one-way multivariate analysis of variance (MANOVA). A MANOVA will be used to assess whether either male or female leaders receive higher ratings on the dimensions of forceful, enabling, and operational leadership. If male leaders are given higher ratings than female leaders on forceful and operational leadership, this result will provide support for hypothesis 5. If female leaders are rated higher than male leaders on enabling leadership, this will provide support for hypothesis 6.

**Discussion**

Results will be interpreted in terms of their implications for future theory and empirical research on the link between workgroup performance and subjective evaluations. Practical implications for organizations will also be considered.
Appendix A-1

Informed Consent Form for Managers

INFORMED CONSENT FORM for RESEARCH
Principal Investigator: Alexandra Mullins  Telephone Number: 919.522.6785

INTRODUCTION
You have been asked to participate in a study being directed by Alexandra Mullins. The faculty member supervising the research is Bart Craig, PhD. This study is part of a program of research that has been designed to learn more about employees’ perceptions of leaders.

INFORMATION
If you agree to participate in this study, you will be asked to release archival records of your group’s performance to the researcher for research purposes. You will also be asked to identify several members of your workgroup to provide ratings of your leadership behavior. These data will be analyzed in an effort to find a relationship between objective measures of organizational performance and employees’ perceptions of leaders.

RISKS AND DISCOMFORTS
None foreseeable.

POTENTIAL BENEFITS
If you choose to view the results of this research study, it will hopefully benefit you by informing you about how workgroup performance links with employees’ subjective evaluations and give you insight into the methods and procedures used to conduct research in the field of psychology.

CONFIDENTIALITY
Your participation in this study is confidential. The individual information collected about you will not be shared with your organization or anyone outside the research team. Only Alexandra Mullins and Dr. Bart Craig will have access to the workgroup data you generate. All results will be reported in an aggregated format (e.g., as averages). Under no circumstance will your organization or employees be identified in a publication or presentation describing this study.

COSTS AND COMPENSATION
You will receive no monetary compensation for participating in this study. You will be offered a technical report summarizing the study’s results in exchange for their participation. Participants may withdraw from the study at any point in time without negative consequences.

CONTACT
If you have questions at any time about this study or the procedures, you may contact Alexandra Mullins at 919.522.6785 or akmullin@ncsu.edu. If you feel that you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of the project, you may contact Ms. Deb Paxton, IRB Administrator, 919.515.4514 or Arnold Bell, IRB Chair, 919.515.4420.

PARTICIPATION
Your participation in this study is voluntary. If you decide to participate, you may withdraw from the study at any time without penalty. If you choose to withdraw from the study before data collection is completed, your data will be returned to you or destroyed at your request.

CONSENT
I have read and understand the above information. Continuing this study indicates, “I agree to participate in this research with the understanding that I may withdraw at any time.”
Appendix A-2

Email Message to Employees

Dear [Name of Organization] employee,

I am a graduate student in the Industrial-Organizational Psychology program at North Carolina State University. I am conducting research for my Master’s degree and would greatly appreciate your help. Your boss, [Name of Boss], has given me permission to contact you to ask for your participation in answering a few questions in a survey. The survey asks you to give honest ratings of your boss, which will remain completely anonymous and confidential. No identifying information will be linked to your responses.

Would you be willing to participate in a short survey? If so, please click the link following the text in this email. The survey should not take more than 30 minutes. At the conclusion of the study, I will gladly distribute results to those that are interested.

Any assistance would be greatly appreciated! Thank you!

Sincerely,

Alexandra Mullins
Appendix A-3

Informed Consent Form for Employees

INFORMED CONSENT FORM for RESEARCH
Principal Investigator: Alexandra Mullins  Telephone Number: 919.522.6785

INTRODUCTION
You have been asked to participate in a study being directed by Alexandra Mullins. The faculty member who is supervising the research is Bart Craig, PhD. This study is part of a program of research that has been designed to learn more about employees’ perceptions of leaders.

INFORMATION
If you agree to participate in this study, you will be asked to complete survey items asking questions about your perceptions and evaluations of leaders. This study should take about 30 minutes to complete. Your boss has given me permission to administer the study to this organization.

RISKS AND DISCOMFORTS
None foreseeable.

POTENTIAL BENEFITS
If you choose to review the results of this research study, it will hopefully benefit you by informing you about areas of industrial-organizational psychology and giving you insight into the methods and procedures used to conduct research in the field of psychology.

CONFIDENTIALITY
Your participation in this study is confidential; your ratings will not be identified to your supervisor as coming from you. Only Alexandra Mullins and Dr. Bart Craig will have access to the individual data you generate. All results will be reported in an aggregated format (e.g., as averages). Under no circumstance will any individual participant be identified in a publication or presentation describing this study.

COSTS AND COMPENSATION
You will receive no monetary compensation for participating in this study. You may request a copy of the study results as per the instructions in the survey. Participants may withdraw from the study at any point in time without negative consequences.

CONTACT
If you have questions at any time about this study or the procedures, you may contact Alexandra Mullins at 919.522.6785 or akmullin@ncsu.edu. If you feel that you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of the project, you may contact Ms. Deb Paxton, IRB Administrator, 919.515.4514 or Arnold Bell, IRB Chair, 919.515.4420.

PARTICIPATION
Your participation in this study is voluntary. If you decide to participate, you may withdraw from the study at any time without penalty. If you choose to withdraw from the study before data collection is completed, your data will be returned to you or destroyed at your request.

CONSENT
I have read and understand the above information. Continuing this study indicates, “I agree to participate in this research with the understanding that I may withdraw at any time.”
Appendix A-4

Implicit Leadership Theories (ILTs) Scale Items and Instructions

Please rate on a scale from 1 (not at all characteristic) to 9 (extremely characteristic) how characteristic each trait is of a business leader:

1. A business leader is understanding.
2. A business leader is sincere.
3. A business leader is helpful.
4. A business leader is intelligent.
5. A business leader is knowledgeable.
6. A business leader is educated.
7. A business leader is clever.
8. A business leader is motivated.
9. A business leader is dedicated.
10. A business leader is hard-working.
11. A business leader is energetic.
12. A business leader is strong.
13. A business leader is dynamic.
14. A business leader is domineering.
15. A business leader is pushy.
16. A business leader is manipulative.
17. A business leader is loud.
18. A business leader is conceited.
19. A business leader is selfish.
20. A business leader is masculine.*
21. A business leader is a male. *

*Items measure Masculinity dimension of ILTs
Appendix A-5

Status Conferral Scale Items and Instructions

Please rate your manager on a scale from 1 (none) to 5 (a great deal) for the following questions:

1. How much status do females deserve in your organization?
2. How much status do males deserve in your organization?
3. How much power do females deserve in your organization?
4. How much power do males deserve in your organization?
5. How much independence do females deserve in your organization?
6. How much independence do males deserve in your organization?