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GENDER GAP IN LEADERSHIP INTEREST: STEREOTYPE INCONGRUITY EXPLANATIONS AND TARGETED RECRUITMENT SOLUTIONS

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ABSTRACT

Despite extensive attention towards understanding the gender gap in leadership, little attention has been given to understanding women's beliefs in leadership and how they affect application for leadership. The present study investigated gender disparity in interest to apply for leadership positions. Using stereotype incongruence explanations, this study examined how gender differences in beliefs about the self and others serve as mechanisms to explain why women are less likely to apply for leadership than men. Further, this study investigated targeted recruitment practices as a solution for encouraging women to apply for leadership. Results show that stereotype incongruence plays little role in the gender gap in intention to apply. However, targeted recruitment practices aimed at the individual improves the rate at which women apply with similar rates of application for men.

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Chapter 1

Introduction

Gender disparity in female leadership is evident around the globe (see www.catalyst.org). Although women have been pouring into the workforce since the mid-twentieth century, now making up 47% of the modern workforce (Bureau of Labor Statistics, 2017), women remain underrepresented in top leadership positions. For example, women hold less than 20% of seats in congress (CAWP, 2018), and comprise only 8% of chief executives in Fortune 500 companies (Fortune Editors, 2017), patterns which hold across many organizations and industries. Gender underrepresentation in leadership – part of a phenomenon called the gender gap - is not unique to the United States. Even in countries high in gender egalitarianism (e.g. the Netherlands, Norway, Sweden, and Denmark) (Yukl, 2013), women still hold less than a fourth of senior leadership roles and represent only 5% of CEOs of the largest publicly listed companies in the European Union (Thornton, 2016). Recent movements such as #LeanIn urge women to feel empowered and confident when approaching opportunities at work (e.g., Sandburg, 2015), and the gender gap in leader emergence has been gradually decreasing with time, but the gap nevertheless persists (Badura et al., 2018).

Traditionally, scholars have explained the gender gap in leadership with genderoccupational stereotype incongruence. Expectations of leaders align with masculine
characteristics, resulting in perceived incongruence between women and leaders and producing
negative evaluations of women leaders (Eagly & Karau, 2002). This incongruence creates a
"glass ceiling" or even a "labyrinth", referring to invisible barriers or challenging paths such that
women cannot rise to higher status positions due to societal and institutional norms and
stereotypes about gender (Eagly & Carli, 2012; Morrison, White, & Van Velsor, 1987; Powell,

1999). This stereotype incongruence explains the gender gap in leadership at two stages of the leadership pipeline: selection of leaders and attrition of leaders.

First, the stereotype incongruence view has shown that women are not *selected* to be leaders over men, due to gender bias and stereotypes held by those who evaluate and make decisions about who becomes a leader (Eagly & Karau, 2002; Heilman, 2012). Early research suggested that women receive lower performance evaluations than men and require higher ratings than men to be promoted (Lyness & Heilman, 2006). A more recent meta-analysis shows the gender gap in performance evaluations is closing, yet women are still less likely than men to see their pay increase and promotions (Joshi, Son, & Roh, 2015). Women also lack developmental opportunities (Lyness & Schrader 2006; Lyness & Thompson 2000; Ohlott et al. 1994) and are less likely to have knowledgeable mentors and receive less career-related advice from mentors than are men (Diehl & Dzubinski 2016). In combination, lower evaluations and opportunity for development makes women seem less qualified for leadership positions than their male peers and prevents them from obtaining better pay and promotion into leadership positions.

A second way that the stereotype incongruence view explains the gender gap in leadership is that once women become leaders, they may not stay in that position. People evaluate women who act with dominance less favorably, due to violating their gender role (Eagly, Makhijani, & Klonsky, 1992). As such, women leaders – who often need to show dominance – are rated less likable or hirable as leaders than men leaders who show dominance (Williams & Tiedens 2016). Further, women leaders are considered less legitimate leaders and lower in status than men leaders, resulting in less follower cooperation and more undermining from followers and ultimately making it more difficult for women to be effective leaders (Vial et

al. 2016). Perhaps due to the hurdles experienced as a leader, women (vs. men) have shorter tenure as CEOs (Glass & Cook, 2016) supporting the idea that women are 'pushed out' of leadership positions (Kossek, Su & Wu, 2017).

Thus, the stereotype incongruence perspective has so far explained the gender gap by focusing on how *others* react to women in leadership, with preferential selection of men over women for leadership roles or, once selected, women leaders being evaluated less favorably. However, a missing piece of the puzzle is considering *how women react to leadership* – and whether they are applying for or being considered for leadership roles in the first place. It is possible that awareness of stereotype incongruence reduces women's willingness or interest to be leaders, thus creating gender disparity in the initial pool of potential leaders for organizations.

The evidence for a gender gap in applying for leadership positions is limited and mixed. On one hand, one survey found only 9% of women report an interest in reaching CEO or managing partner positions compared to 18% of men, and 43% of women aspiring to reach senior management compared to 54% of men (Galinsky et al., 2003). Similarly, a recent study of career goals found that while women see high-level positions as equally obtainable as men, women have little desire to obtain these positions due to heightened anticipation of conflict and tradeoffs (Gino, Wilmuth, & Brooks, 2015). On the other hand, some evidence finds no gender gap in indicators such as business career aspirations (Morrison, White, & Van Velsor, 1994), motivation to lead tendencies (Chan & Drasgow, 2001; Rosch, Collier & Thompson, 2015), and desire to be leaders (Eagly, 2013). Moreover, there was a record-breaking number of women running in the 2018 congressional races (Kurtzleben, 2018) where women started asking, "why not me?" (Alter, 2018, p. 29). Understanding what prompts women to apply for leadership is an

overlooked component of closing the gender gap in leadership: what factors get women to ask themselves "why not me?" and apply for leadership positions?

Given that you cannot see gender parity in leadership without equal numbers applying, the first step in closing the gender gap in leadership is identifying, understanding, and reducing any gender gap in applying for leadership positions. The primary goal of my research is to identify if there is a gender gap in intentions to apply for leadership and test two explanations for such a disparity. Based on gender-leadership stereotype incongruence, I expect to find that women are less interested in leadership roles than men, and this gender disparity can be explained by men and women holding different beliefs about (a) strength of *self*-efficacy for leadership and (b) likelihood of *others* mistreatment toward them as leaders. The secondary goal of this paper is to consider practices that can help to reduce such a gender gap in intentions to apply for leadership. Assuming self-efficacy and other-mistreatment beliefs are malleable, I propose that targeted recruitment – specifically inviting a woman to consider the leadership role-improves women's likelihood to apply for leadership positions over more general recruitment approaches.

This study makes important theoretical, empirical and practical contributions to the literature on women in leadership. First, I extend the stereotype incongruence theoretical explanation for the gender gap in leadership (Eagly & Karau, 2002) to understand how one's awareness of incongruence between gender roles and leader roles affects the likelihood of applying for leadership positions. This extends prior work, which has applied role incongruence explanations to explain evaluators (i.e., glass ceiling due to bias) but has not systematically considered how it affects women's (vs. men's) decision to pursue leadership roles (Eagly & Karau, 2002; Koenig, Eagly, Mitchell, & Ristikari, 2011).

This inquiry also extends the theoretical idea of stereotype incongruence by proposing more specifically *why* and *when* such stereotype misfit might explain leadership applications and providing a novel empirical test of these ideas. I compare beliefs about the self (i.e., I'm not a good fit) and of others (i.e., they will see me as a bad fit and not support me) as two possible mechanisms for gender differences due to stereotype incongruence. These two approaches reflect internal cognitions of employees, as a source of the gender gap in the leadership applicant pool. I pursue these questions using survey methods with both a student and working adult sample, priming participants to think about leadership opportunities at their organizations, which are then realistic and relevant to the participant.

Finally, this study offers practical implications by examining questions important to organizations and managers. The findings of this research will guide those seeking diverse representation at higher tiers within the organization. I also explore whether group-targeted or individual-targeted recruitment practices (Newman & Lyon, 2009) influence the gender disparity in applications. I examine if the gender disparity in these beliefs is stable (i.e., stereotype incongruence as rigid beliefs) or can be reduced by certain types of recruitment practices that focus on women (i.e., stereotype incongruence as malleable). By examining the effect of recruitment practices, I offer practical guidance to organizations to understand women within their organization with leadership potential and encourage them to reach that potential.

Theoretical Framework

Stereotypes refer to overgeneralized assumptions about the characteristics and expected behaviors of a person due to their group membership (McCauley, Stitt, & Segal, 1980); often studied regarding demographic groups such as gender, age and race (e.g., Fiske, Cuddy, Glick & Xu, 2002, North & Fiske, 2012). Stereotypes about group members stem from observations of

group member distributions in various social structures and roles (e.g. breadwinner and homemaker vs CEO or president) (Eagly & Steffen, 1984). Also, people hold stereotypes about how people in certain occupations should behave, or prototypes (Carli et al., 2016; Lipton, O'Connor, Terry, & Bellamy, 1991; Rosette, Leonardelli, & Phillips, 2008).

We learn gender roles and stereotypes in early childhood through observation of family and the surrounding environment. A common example of the internalization of stereotypes is elementary school girls having lower identification with math than boys due to the observation of a societal belief that "math is for boys" (Cvencek, Meltzoff, & Greenwald, 2011), which then affects career interests (Su & Rounds, 2015). In short, observations of group activities lead to beliefs that men and women tend to have differing patterns of traits and abilities such that men are stereotypically characterized by agency (e.g. achievement orientation, assertiveness, dominance, autonomy, rationality) while women are stereotypically characterized by communality (e.g. concern for others, warmth, friendliness, deference and sensitive to emotions) (Abele, 2003; Bakan, 1966; Eagly, 1987; Heilman, 2012). According to a recent meta-analysis, stereotypes about men being more agentic than women have remained unchanged over time while stereotypes about women being more communal than men have grown (Eagly et al., 2019). These stereotypes then steer men and women toward a congruent career or work roles.

Stereotype Fit: Gender and Leadership Interest

Stereotype fit framework addresses a broad range of explanations for why members of a group may experience misfit and discrimination within an occupation or social role (Heilman, 2001). Within that framework, role congruity theory (Eagly & Karau, 2002) is frequently used to explain the underrepresentation of women in leadership as a function of incongruence between gender stereotypes and leadership roles.

Leadership is traditionally seen as a "gendered construct" (Yoder, 2001), aligning with the stereotypes of men (e.g. strength, masculinity, tyranny: Offermann, Kennedy, & Wirtz, 1994). The gender associations with leadership explain why women leaders are often evaluated less favorably than men, such as when women leaders behave in dominating or autocratic ways (Eagly, Makhijani, & Klonsky, 1992). In a study of archival performance evaluations in senior positions, Lyness and Heilman (2006) found women in senior-level management positions that require more masculine behaviors were evaluated more negatively than women in management positions that require more feminine behaviors and men in either type of management position¹. Further, despite holding the same formal leadership position, women are seen as less legitimate and lower in status than men, which has negative consequences for follower cooperation and undermining (Vial et al., 2016).

Even the most qualified women face a double-bind when deciding whether to apply for a leadership position (Eagly & Carli, 2012). A double-bind, in this case, refers to the dilemma in which women must choose between acting masculine to meet leadership job requirements but violating gender roles, or acting feminine enough to meet gender role expectations, but violating occupational role expectations (Eagly & Carli, 2012). Because leadership presents a double-bind for women, they may avoid this conflict by never applying for the leadership positions in the first place. Following this line of reason, the proposed study investigates gender differences in intention to apply for leadership roles. Below I describe in more detail how women and men may have different beliefs about themselves and their social treatment, due to these stereotypes. But first, I hypothesize the following:

¹ While the terms leader, manager and supervisor have qualitative differences, the complexity of their conceptual and practical overlap has led many scholars to use them interchangeably. For the present research, we define leadership broadly and use these terms interchangeably.

Hypothesis 1: Gender predicts intention to apply for leadership roles, such that women express less intention to apply for a leadership position than men do.

Beliefs of the Self: Gender Differences in the Leader Self-Efficacy

When considering when and why women apply to leadership positions, it may be useful to consider the beliefs women hold about themselves. Role congruity theory is traditionally used to explain how evaluations of women by others leads to discrimination against by organizations. However, people internalize gender role stereotypes and experience role-conflict when they act in ways incongruous to prescriptive gender stereotypes (Rawski, Djurievic & Sheppard, 2014). For example, when one must violate their gender role to uphold a simultaneous social role, one can experience role conflict (O'Neil, 2008, 2013). Gender role conflict is linked to a stress response (Caswell, Bosson, Vandello & Sellers, 2014; Vandello, Bosson, Cohen, Burnaford & Weaver, 2008) and can be particularly distressing when that role-conflict is built into one's occupation (Luhaorg & Zivian, 1995). Thus, based on stereotype incongruence, I expect that when considering masculine roles such as leadership, women may have beliefs about the self that conflict with the occupational role.

In particular, women may believe that they cannot perform the behaviors necessary for leadership roles, or leadership self-efficacy, (Chemers, Watson, & May, 2000; Depp, 1993; Kane, Zaccaro, Tremble, & Masuda, 2002; Mayo & Christenfeld, 1999) compared to men. Notably, the evidence showing this gender gap in leader efficacy is dated, gathered around two decades ago. More recent evidence shows no significant gender difference in leader self-efficacy (Seibert, Sargent, Kraimer, Kiazad, 2017). This may be a sign of societal changes in gender beliefs, given many cultural, organizational, and interpersonal initiatives, (e.g., U.N. Sustainable Development goals, organizational accountability policies, mentoring) have facilitated women's

path to leadership by empowering women, or altering their self-beliefs (Lyness & Grotto, 2018). Cultural egalitarian values seen in Europe and emerging in the United States may spread through organizational and HR practices to positively influence self-beliefs and encourage women to strive towards leadership (Lyness & Kropf, 2005; Lyness & Grotto, 2018). Though this evidence suggests that women's self-efficacy for leadership is similar to men's, it is unclear whether such efficacy beliefs translate into reducing the gender disparity in leadership applications and interest. Thus, I aim to test whether women today have similar or still lower self-beliefs than men with regards to leadership, and whether those beliefs predict intention to lead.

One reason there may still be a gender disparity in self-efficacy for leadership is the lack of women in leadership roles. A source of self-efficacy is vicarious observation, with role modeling having stronger effects on self-efficacy when the target is similar to self (Bandura, 1986). Without women representation in leadership roles, women employees have less opportunity to vicariously observe leadership role-modeled and are thus not able to gauge their ability relative to other women leaders. Men comprise the majority of leadership roles in many industries, such as 80% of executives, senior officers, and managers in U.S. high-tech industries in 2014 were men (Equal Employment Opportunity Commission, 2014). As of 2019, women hold approximately a third of lower and middle management positions, with that proportion dropping to a fourth of senior-level executive positions, a fifth of corporate board seats and only one-twentieth of CEO positions (Catalyst, 2019). This suggests that while women at lower levels may have access to gender representatives at the next tier up, that representation becomes scarcer at each rung up the ladder. Thus, women may internalize the lack of women role models in leadership as gender-occupation incongruence and perceive themselves as less than capable of being a leader due to their gender membership.

The impact of self-efficacy on job motivation and performance has been widely documented (Bandura, 1977, 1997; Judge & Bono, 2001; Stajkovic & Luthans, 1998).

Leadership self-efficacy has been shown to predict who is motivated to become a leader and ultimately apply (Singer, 1989) Across a multiple study investigation, Chan and Drasgow (2001) identified self-efficacy as a consistent proximal predictor of motivation to lead. In combination with explanations for gender differences in leadership self-efficacy, we pose gender differences in leadership self-efficacy as an explanation for women having lower intentions to apply for leadership positions. More specifically, we hypothesize the following:

Hypothesis 2: Women report lower leadership self-efficacy than men (2a) which explains the indirect relationship between gender and applying for leadership (2b).

Beliefs about Others: Gender Differences in Anticipated Mistreatment as Leader

A second explanation for gender differences in applying for leadership positions is anticipated social consequences associated with being a leader. Role congruity theory posits that incongruity between gender and leader stereotypes explains prejudice towards women leaders (Eagly & Karau, 2002)—prejudice that can often manifest into discriminatory or sexist behavior. An extensive body of work theorizes that aggressive behaviors towards women at work (e.g., incivility, undermining, sexual harassment) are motivated by a desire (explicit or implicit) to maintain traditional gender hierarchies, sometimes referred to as gender policing (e.g., Berdahl et al., 1996; Berdahl, 2007; Franke, 1997; Rudman & Fairchild, 2004; Rudman & Glick, 1999, 2001; Stockdale, Visio, & Batra, 1999). This theorizing explains aggressive acts as a means to punish women who act in traditionally masculine ways – which include taking on the role of leader - that threaten the patriarchy. For example, evidence suggests that women who violate

gender roles face more sexual harassment (Berdahl, 2007) and backlash (Rudman & Fairchild, 2004) as a means to punish them for role violation.

Even with a lack of exposure to women leaders, women can observe gender policing of women leaders through high profile cases in the media. For example, in the 2016 presidential election, Hillary Clinton was frequently criticized for being "shrill" and "unlikable", ultimately undermining her qualifications by highlighting her violation of gender roles. As the 2020 election approaches, women candidates are beginning to receive similar criticisms (Astor, 2019). Such negative experiences suggest there are social consequences for breaking gender norms.

What makes observations and experiences of gender policing and backlash an effective form of gender policing is the way the experiences later lead the target or observers to fear social backlash in the future (Rudman & Fairchild, 2004). The anticipation of backlash due to violations of expectations leads the individual to engage in behaviors that are more normative and avoid going against the grain (Rudman & Fairchild, 2004). Therefore, women will likely fear such treatment in the future and avoid circumstances, such as leadership positions, that would enable them to behave in gender incongruent ways. Thus, I propose the following hypothesis:

Hypothesis 3: Women anticipate higher rates of negative social reactions as leaders than men do (H3a), which explains the relationship between gender and likelihood to apply for a leadership role (H3b).

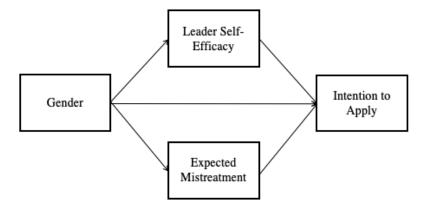


Figure 1-1. Proposed conceptual model.

Recruitment Strategies: Malleability of the Leadership Self- and Other- Beliefs

To improve the proportion of women in leadership positions, there must be a sufficient number of women applicants recruited for or considered for the positions. Relatively little literature exists that delineates the methods of recruiting or identifying potential leaders (Thornton, Johnson, & Church, 2017). One is a general job posting or announcement regarding an open leadership position, but an approach to reduce disparities is a group-targeted recruitment announcement that "encourages women and minorities to apply". Unfortunately, neither type of recruitment method is likely to address the self-efficacy and other treatment beliefs identified above.

When seeking to alter the composition of an applicant pool, researchers and organizations have turned to targeted recruitment. Targeted recruitment is a practice in which underrepresented groups are targeted in organizational hiring efforts to improve the diverse representation in an applicant pool (Newman & Lyon, 2009). Targeted recruitment should improve the quality of the applicant pool and further increase the number of high-potential applicants in the selection system, allowing higher functioning of the selection system (Murphy, Osten, & Myors, 1995; Newman & Lyon, 2009). Since the gender disparity in the leadership applicant pool tends to

suggest a lack of women, my discussion and hypotheses henceforth will be focused solely on exploring the effects of targeted recruitment aimed at reducing gender disparity in the applicant pool. I focus on arguments for why targeting women may help reduce gender disparity by improving women's beliefs to be more similar to the beliefs of men. Although typically applied to external hires, targeted recruitment could also be applied to the internal selection of leaders.

The research on targeted recruitment is ultimately limited (Breaugh, 2008), leaving the effectiveness of targeted recruitment unclear. However, some research has demonstrated the effectiveness of external factors on improving women's self- and other-beliefs and subsequent behaviors. For example, organizational diversity initiatives are associated with improved representation of women in managerial positions (Kalev et al. 2006). Further, external influences such as high-quality mentoring relationships that provide perspective and sensemaking in the face of ambient discrimination can buffer the negative effects of ambient discrimination events on the mentee (Ragins et al. 2017). Finally, in a step-by-step model of leadership development developed by Cheung and Halpern (2010), personal encouragement is presented as the first step to boost women's leadership self-efficacy.

While targeted recruitment is typically targeted at a group (e.g., women), more specific or personalized targeting of individuals within that group may be more effective in motivating members of that group to apply by improving self- and other-beliefs. Using a message that focuses on the group (e.g., "seeking female candidates!") may signal the goal of the organization to improve female representation within that job role. However, this message may also imply that they are not necessarily seeking a qualified candidate for the position so much as a token woman leader. Using individual-targeted recruitment as a method when targeting women who are qualified, but otherwise would not apply for a leadership position, may improve women's

self-efficacy ("i.e., they wouldn't ask unless they thought I'd be good at it") and motivate them to enter into the leadership applicant pool. Similarly, individual-targeted recruitment that encourages a specific woman to apply may imply expected social support from colleagues ("i.e., they wouldn't ask unless they would be supportive of me in the role") and motivate her to apply for the leadership position.

Overall, I propose the following:

Hypothesis 4: Compared to non-targeted recruitment and group-targeted recruitment, women who receive individual-targeted recruitment are more likely to apply for leadership positions.

I will examine how recruitment affects men's beliefs and leadership applications in an exploratory way.

Chapter 2

PILOT STUDY

In general, I propose a model that relies on the underlying assumption of role congruity theory that women, compared to men, perceive greater stereotype incongruence between their gender and leaders. Given my hypotheses are based on assumptions of gender differences stereotype incongruence and motivation to lead, I first tested whether those gender differences still exist. As a conservative test, we survey undergraduate students to see if gender and leadership stereotypes hold among people who lack much direct experience with how leaders are treated in business contexts.

Method

Sample

Online data was collected from students at a large university in Fall semester. Participants were recruited through the department's undergraduate online participant pool in exchange for course credit, and 288 participants volunteered. To ensure quality of responses, two attention checks were embedded within the survey (Meade & Craig, 2012). The first attention check asked the participant to select "Very" and the second attention check asked participants to select "Somewhat likely". Out of the 288 participants, 29 were omitted due to poor quality data (10%): 12 participants for completing less than 60% of the survey and 17 for missing either of the response quality checks.

The final sample (N = 259) had a mean age of 19.00 years (*SD*=2.30). The sample was majority female (76.4%) and Caucasian (81.1%), with 10.0% Asian, 8.1% Hispanic, 5.4% Black participants, 0.1% Native American or Alaskan Native and 00.1% Hawaiian or Pacific Islander. Note that because participants were able to select multiple race options, these percentages add up to more than 100%.

Over half of the sample had leadership experience (62.2% total, 65% of women, 52% of men). Of those who had leadership experience, 22% described a position within their workplace, while the remaining 78% reported leadership in a social or academic group (e.g., athletics, sorority/fraternity, clubs, class projects, youth ministry, Boy/Girl scouts of America).

Procedure

After reading instructions and consenting to participate in the online survey, participants were asked demographic questions (i.e. gender, age, race, and family income). Survey logic used their gender to show the appropriate gender pronouns and instructions for the gender-stereotypes

(e.g., stereotypes of women for female respondents) either presented on the next page or at the end of the survey as explained below. Participants then rated leadership stereotypes.

Survey order for gender stereotypes. It is possible that asking for gender stereotypes at the beginning creates high stereotype awareness and results in greater bias about leader stereotypes and leader interest (e.g., Spencer, Logel, Davies, 2016). To reduce the likelihood that our findings are due to this methodological artifact, we randomly assigned participants such that half the participants rated gender stereotypes at the beginning and the other half rated gender stereotypes at the end of the survey. Based on an between-person ANOVA, the group reporting gender stereotypes prior to the rest of the survey did not significantly differ (p > .10) from the group that reported gender stereotypes at the end of the survey, in terms of leader stereotypes or intentions to apply, thus all data was aggregated together.

Priming for leadership role. Prior to being asked about interest in leadership positions, participants were asked to write a paragraph describing a leader in their own life, a priming technique to orient participants to think about the characteristics of actual leaders before they imagine themselves relative to a leadership position when they rate their willingness to apply for a leadership position (similar to the one they described) in their current or future career path.

Lastly, they were asked about the extent and type of their leadership experience as factors that might affect their beliefs.

Measures

Gender-leader stereotype incongruence. Participants rated their awareness of societal beliefs about their own gender and leaders (i.e., stereotypes) with instructions that asked: "What do most people believe a business leader is like?" and "What do most people believe women (men) are like?" (matched to gender of participants). For each instruction, they responded to 20-

items (McPherson, Park, & Ito, 2018), on a five-point scale from "Not at all" to "Extremely". That assess the two main dimensions of communality and agency. Examples of the 10 *communal* items include "Are caring" and "help the community" ($\alpha_{gender} = .90$; $\alpha_{leader} = .86$), while the 10 *agentic* items include "Are dominant" and "Make decisions easily" ($\alpha_{gender} = .90$; $\alpha_{leader} = .81$).

To test the assumption that gender stereotypes held about women are more incongruent with leader stereotypes than gender stereotypes held about men, I followed the approach used by McPherson et al. (2018) to compute incongruence scores. This is done by subtracting participants' stereotypes of leaders from the stereotypes for their own gender, for agentic and communality scores separately. Congruence (or a "good fit") between gender and leadership stereotypes would be a value close to zero, whereas positive values indicate the participants see their gender as having more of the quality compared to leaders, and negative values the participants see their gender as having less of the attribute than leader have.

Intention to apply for leadership. Intention to apply for a leadership position was assessed through a modified version of a 5-item measure of company attractiveness (Highhouse, Lievans, & Sinar, 2003), rated on a scale of 1 (strongly disagree) to 5 (strongly agree). The five items were altered to reflect attraction to the leadership role that the respondent was instructed to imagine at their current or future company. Based on item-level analysis, we removed one item that did not make sense for our purposes and reduced reliability of the scale ("I would recommend this leadership job to a friend looking for a similar job"). The four remaining items showed excellent internal consistency ($\alpha = .85$).

Gender. Gender was measured using a 1-item measure that asked participants to indicate their gender. Options included "Male", "Female", and "Other", giving the option to write in their gender identity for "Other".

Leadership experience. In order to determine the sample's experiences with leadership for descriptive purposes, we asked participants whether they had had or currently hold a leadership role, defined as any leadership position at a job, on a club, sports team or any formal group. They were then asked to describe the position in an open-ended response.

Pilot Results

I tested the assumptions about gender-leader stereotype incongruence and gender disparity in applying for leadership roles. I further explored whether incongruence between stereotypes has implications for one's intention to apply. Means, standard deviations, and correlations are reported in Table 2-1. Means for gender and leader stereotypes can be seen in Figure 2-1 and 2-2.

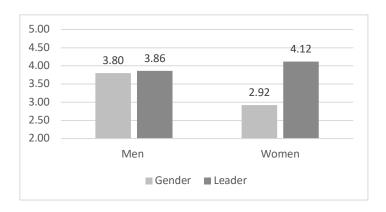


Figure 2-1. Beliefs about Agency Stereotypes for One's Gender and Leaders

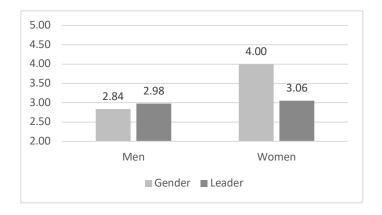


Figure 2-2. Beliefs about Communality Stereotypes for One's Gender and Leaders

Table 2-1

Pilot Study Correlations, Means and Standard Deviations

1 wor study Correlations, incans c	1	2	3	4	5	6	7
1.Respondent Gender $(M = 1, F = 2)$							
2. Leader Agency	.207***						
3. Leader Communality	.052	.064					
4. Gender Agency	515***	.010	.265***				
5. Gender Communality	.710***	.317***	.237***	093			
6. Intention to Apply	.117	.279***	.152*	.127*	103		
7. Leadership Experience	157*	022	017	.097	025	.091	
Mean	.764	4.06	3.04	3.13	2.37	4.54	1.38
SD	.425	.531	.653	.729	.617	.559	.486

Note. * p < .05, ** p < .01, *** p < .001

Testing Assumptions: Gender-Leadership Stereotype Incongruence

To test role congruity assumptions, I conducted OLS regressions with respondent gender as the predictor and gender-leader stereotype incongruence for both agenticism and communality as the outcome. Focusing first on agentic characteristics, respondent gender explained 29% of the variance in gender-leader stereotype incongruence ($R^2 = .29$, F(1, 257) = 106.211, p < .001) such that women saw stereotypes about their gender as more incongruent with leaders than did men ($\beta = -.541$, p < .001). As shown by the means in Figure 2a, women believe their gender is viewed as *less* agentic than leaders are, and this difference is greater than it is for men (p < .001, $\Delta M = -1.14$). Interestingly, post-hoc Welch's t-test analyses show that not only do women believe their gender is stereotyped as *less* agentic than men do (t(111.1) = 10.26, p < .001, $\Delta M = .88$, 95% CI [.70, 1.06]) but women also believe *leaders* are more agentic than men do (t(84.2) = -3.00, p < .01, $\Delta M = -.26$, $\Delta 95\%$ CI [-.43, -.09]). Therefore, women are aware that people see their gender as less agentic than men, but also are setting a higher bar than men when considering agenticism expected for leadership.

Focusing on communal characteristics, gender explained 30% of the variance in gender-leader stereotype incongruence (R^2 = .30, F(1, 257) = 111.70, p < .001) such that women (vs men) saw their group as more incongruent (β = .550, p < .001). The means in Figure 2b suggest that women believe their gender is stereotyped as *more* communal than leaders, and this incongruence is stronger for women than it is for men. Post hoc Welch's t-test analyses show that women and men stereotype leaders as similarly communal (t(102.6) = -.85, p > .05, ΔM = -.08, 95% CI [-.27, .11]), such that the gender-leader incongruence is driven by the gender stereotypes (t(92) = -15.28, p < .001, ΔM = -1.16, 95% CI [-1.31, -.1.01]).

Indeed, these findings are consistent with the assumption that women believe their gender's agency and communality are viewed as more incongruent from leader characteristics than men's. Compared to traditional studies which use gender as a proxy for role-incongruence, this pilot study finds empirical support that women and men hold different levels of stereotype incongruence between their gender and leaders. Difference scores are a common method used by scholars to denote congruence between two component measures, but they limit interpretation (Edwards & Parry, 1993). I address this concern by providing the means of both gender and leader stereotypes and comparing by t-tests, as well as using the difference score as an outcome in regression analyses.

Testing Assumptions: Gender Difference in Leadership Interest

Hypothesis 1 proposed that women have lower intentions to apply for leadership positions than men. This hypothesis was tested using a Welch's t-test to test for differences in group means while accounting for unequal variances due to the unequal group sizes in our sample (Welch, 1947). Results, seen in Figure 2-3, suggest women (M = 4.58, SD = .67) and men (M = 4.43, SD = .52) did not differ in their attitudes towards applying for a leadership position [t(83.4) = -1.65, p > .05]. Thus, men and women were equally interested in applying to be a leader, and hypothesis 1 was not supported.

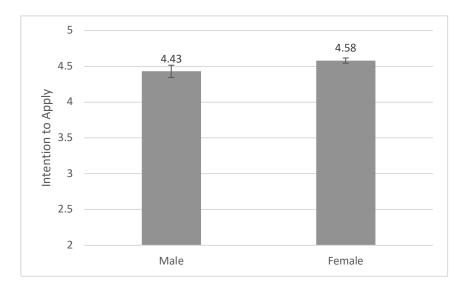


Figure 2-3. Intention to Apply for Leadership Position by Gender.

Exploratory

We found support for gender-leadership stereotype incongruence such that women had greater incongruence than men for both agency and communality. We further tested the assumption that gender-leader stereotype incongruence was associated with intention to apply for leadership. In contradiction to expectations, gender-leader agency incongruity was not significantly related to intention to apply ($\beta = -.062$, p > .05, $R^2 = .004$), and gender-leader communality incongruity explained only 2% of the variance and was *positively* related to intention to apply ($\beta = .131$, p < .05, $R^2 = .017$).

Pilot Discussion

Though we do find support for greater gender-leader stereotype incongruence for women, we did not find gender differences in interest in applying to leadership positions, or incongruence as a predictor of that interest. This could be due to our methodology, or – optimistically – substantive societal changes. Though the majority of this sample had leadership experience, those experiences were mostly (78.1%) high school and collegiate student organizations (i.e. clubs, sports teams, Greek life) rather than business; notably, these contexts tend to be gender-

segregated more than in the business world. It is possible that asking students to reflect on business leadership may not adequately capture attitudes towards leadership for a number of reasons (Bono & McNamara, 2011). Thus, a sample of working adults – with more exposure to the business context – might show the gender disparity in leadership motivation.

Alternatively, perhaps the stereotype incongruence has no impact on leadership interest, but rather creates the gender disparity later in the pipeline (i.e., due to selection biases, attrition of women leaders). To confirm the lack of gender differences in leadership interest we proceed with our main study, where we test for gender differences in leadership interest with a working adult sample, as well as testing for gender differences other self and other beliefs. Finally, we test whether organizational recruitment strategies help to minimize the gender disparity.

Chapter 3

MAIN STUDY

The purpose of this study was to test the proposed model (see Figure 1) with an adult working sample and assess (1) gender differences in intention to apply to leadership, (2) gender differences in beliefs about the self and others that predict likelihood to apply to leadership roles, and (3) to assess targeted recruitment methods as a potential intervention for gender differences in interest to apply for leadership positions.

Method

Participants in the main study responded to a two-part online study with a survey component followed by an experimental investigation. The survey component conducted a between-subject design comparing gender differences in the proposed mediational processes.

Sample

With our goal of obtaining an adult working sample, 201 participants were recruited to complete an online study through Prolific Academic (www.prolific.ac). Prolific is a recently designed online platform for recruitment of participants designed to address methodological and technical concerns raised about other online sampling (e.g., Amazon's Mechanical Turk), including unclear payment standards, communities of professional online survey takers sharing details of studies, and limited attention paid to tasks (Palen & Schitter, 2018). Prolific requires ethical pay and treatment of participants while providing researchers with more transparent methods for prescreening prior to study recruitment. Collectively, Prolific is an alternative participant recruitment platform that benefits both the researcher and the participants, relative to other platforms. In this particular data collection, participants were rewarded \$2.17 for their participation in the study which resulted in an average payrate of \$7.66 per hour spent².

To be included in the study, eligible participants were over 18, working full-time (>35 hours per week), with native or professional English language proficiency. To ensure quality of responses, two attention checks were embedded within the survey items. The first attention check item asked participants to "Please respond 'Somewhat likely' to this statement." and the second attention check asked participants to "Please select 'Very'" (Meade & Craig, 2012). Of the 201 original respondents, 12 participants (6%) were removed from the study for missing one or more of the response quality checks. Given the nature of the study, participants were asked to imagine that a leadership position was opening up in their current company. We dropped an additional 21 participants (11%) who reported that leadership opportunities were not available to them in their organizations, since the scenario would not be realistic to them participants.

² Funding for this study was awarded through the Psychology Department at Penn State University and funds were provided by the Herbert H. Krauss Memorial Graduate Research Endowment in Psychology.

The final sample (N =168) had a mean age of 33.80 years (*SD*=9.01) based on a single item requesting the participant to report their age in years in an open-response. The sample was majority male (57.7%) and Caucasian (82.7%), with 8.9% Asian, 8.3% Hispanic, and 1.1% Black participants. No participants reported their race as Native American, Hawaiian, or Pacific Islander. Note that because participants were able to select multiple race options, these percentages add up to more than 100%.

These respondents held jobs in a variety of industries and occupations, with the largest groups in computer and mathematics occupations (13.8%), education, training and library occupations (12.0%), and business and financial occupations (9.6%). Participants reported a range of tenures from 0-6 months (7.7%) to over 20 years (4.2%) with most participants having a tenure between 2 and 10 years (57.1%).

Survey Procedure

At the beginning of the survey, participants were primed to think about actual leadership positions within their current organization, listing responsibilities associated with leadership (Mumford, Campion, & Morgeson, 2007), such as "setting goals and objectives for others", "allotting resources needed for tasks", "identifying and solving problems" and "responding to pushback or complaints from employees or teams" and job titles that indicated leadership, including "team leaders", "supervisors", "project managers" "department manager" and "CEO/CFO". After priming participants to think about leaders and leadership positions within their own workplace, we asked for their leadership experiences in their organization: whether they currently hold a leadership position or have previously applied for or held leadership positions within their organization. If yes, they were asked to describe the position.

Participants then rated measures of our focal measures: anticipated mistreatment, leadership self-efficacy, and willingness to apply for a leadership position if one were to become available at the organization. Given the range of previous experiences apply, participants were asked to rate these measures either a) based on previous experiences applying for and in leadership roles or b) if they lacked experience with leadership, imagining a leadership role within their current organization that may become available to them. In addition, to confirm and extend our stereotype incongruence findings in the pilot study, participants rated leaders' stereotypical agency and communality and their own agency and communality.

After rating the focal outcomes, exploratory questions were used to gather a better understanding of leadership application opportunities in the workplace. Participants were asked questions about opportunities to apply for leadership in their organization in the past regardless of whether or not they applied to the opportunity. This portion of the survey included both multiple-choice response and open-ended questions. Participants who reported having had the opportunity to apply were asked follow-up questions regarding recruitment and how interested they were in the position.

Experimental Procedure

After the survey and open-ended questions, we used a between-person design to assess reactions to an experimental manipulation of targeted recruitment tactics. Participants were randomly assigned to one of three conditions; individual-targeted recruitment, group-targeted recruitment, or general recruitment. They read brief experimental vignettes, reported in the Appendix, which asked them to imagine the company that they currently work for is searching for a qualified individual to fill an open leadership role (example: supervisory role, project leader, department manager, committee chair, etc.) within their department. They were then

asked to read a description of the open position which included general leadership role responsibilities and a brief mention of benefits (see the Appendix).

Participants then received one of three recruitment messages from their supervisor. In all the messages, participants were reminded by their supervisor of the open position and were asked to respond if they were interested in applying. For participants in the individual-targeted recruitment condition, their supervisor stated a belief that the participant was qualified for the position and should apply. For participants in the group-targeted recruitment condition, the supervisor stated that the department values diversity and given the lack of women currently holding leadership positions in the company, they highly encourage women to apply. Participants in the general recruiting condition received no additional statements. Following the manipulation, participants rated their interest in the position and were asked to write a short response to their supervisor about whether or not they wished to apply and why.

Survey Measures

Leadership intention to apply. The same measure from the pilot was used, specifying that they imagine an opportunity for a leadership role at their current organization.

Leadership self-efficacy. Leadership self-efficacy was assessed with an adapted version of the 5-item Leader Role Efficacy scale (Ladegard, & Gjerde, 2014), reworded to measure expectations in a future position (α = .77). An example of an adapted item is "I would feel confident when I make decisions" with a scale of 1 (Extremely unlikely) to 5 (Extremely likely).

Anticipated mistreatment. Anticipated mistreatment was assessed using the 13-item coworker sub-facet of the social undermining measure developed by Duffy, Ganster and Pagon (2002), which refers to behaviors consistent with backlash and mistreatment of leaders. I adapted the measure to reflect expectations of future behaviors from followers toward themselves as a

leader. Adapted instructions asked participants "How likely are the people who follow you to do the following" with items such as "Spread rumors about you?" and "Belittle you or your ideas?". Anticipated social undermining was rated from 1 (Extremely unlikely) to 5 (Extremely likely). The items in this measure showed excellent internal consistency ($\alpha = .87$).

Stereotype Incongruence. Using the same 20 agency and communality items used in the pilot, participants were asked "How do you see the following descriptors as characteristic of yourself?" and "What do most people believe a business leader is like?" and rated each item on a five-point scale from "Not at all" to "Extremely".

Respondent gender. Gender was measured using a 1-item measure that asked participants to indicate their gender. Options included "Male", "Female", and "Other", giving the option to write in their gender identity for "Other".

Gender ratio of work context. Research on gender and leadership have emphasized the influence of workplace gender context on perceptions of gender-leadership congruence. For example, women are seen as more effective leaders in female-dominated contexts, while in male-dominated contexts men are evaluated as more effective and women tend to be mistreated or harassed more often (Paustian-Underdahl et al. 2014). To assess the influence of gender context, the proportion of men and women coworkers who work with the participant was measured using a slider graphic. The instructions read "What proportion of your coworkers are male or female?" ranging from "100% male coworkers" to "100% female coworkers"

Leadership recruitment experiences. To assess the experience of recruitment for leadership positions, participants were asked to "Think of the last time you learned of a leadership opportunity (e.g. supervisory role, project leader, department manager, committee chair, etc.) within your current organization that was available to you". Participants were asked

"When was this opportunity presented?" with options ranging from "Never" to "10+ years ago". To gauge interest in the position, participants were asked "Regardless of whether or not you applied to the leadership position, how interested were you in the position?" with responses ranging from "Not at all" to "Extremely". For those who reported a previous opportunity, participants answered the follow-up question "Who was the leadership position opening announced to?" with options of "Everyone", "A select few" and "Only you".

Experiment Measures

Leadership intention to apply. Intention to apply for the leadership position was measured using a slider graphic. The instructions read "How likely are you to apply for this position?" ranging from 0 (Not Likely) to 100 (Most Likely).

Results

Means, standard deviations, and correlations are reported in Table 3-1. We were seeking an adult working sample with more business and leadership experience. As can be seen in Table 3-1 the respondents were older ($M_{\text{pilot}} = 19.0$, $M_{\text{main}} = 33.8$, $\Delta M = 14.8$, t(181) = 20.85, p < .001) and were all working adults (vs. 37.9% with work experience in student sample). Approximately half of the respondents had leadership experiences in a business setting (50.6%) compared to only 13.5% in the student sample. All participants reported their gender identity as either male or female, therefore all were included for between-gender analyses. Thus, we proceed with our hypothesis testing.

Table 3-1

Correlations, Reliabilities and Descriptive Statistics

	1	2	3	4	5	6	7	8	9	10	11
1. Gender	_										
2. Leader Agency	.03	(.81)									
3. Leader Communality	08	0.01	(.90)								
4. Self Agency	13	.25**	.29***	(.81)							
5. Self Communality	.12	.22**	.46***	.35***	(.85)						
6. Leader Self Efficacy	07	.28***	.19*	.47***	.30***	(.77)					
7. Anticipated Mistreatment	.07	19*	-0.05	16*	32***	30***	(.87)				
8. Intention to Apply	17*	.22**	. 25**	.35***	.25**	.37***	23**	(.88)			
9. Age	.09	0.01	0.1	01	.13	.03	15	01	_		
10. Gender Proportion	.39***	.14	.00	07	.17*	.02	03	06	.15	_	
11. Leader Experience	.05	.02	.11	.12	.04	.18*	09	.12	.17*	02	_
Mean	1.41	4.05	2.89	3.44	3.76	4.11	2.27	4.01	33.8	-2.72	0.51
SD	0.493	0.55	0.78	0.59	0.6	0.59	0.69	0.85	9.01	56.4	.501

Note. * p < .05, ** p < .01, *** p < .001. Reliabilities are reported along the diagonal.

Hypothesis Testing

Hypothesis 1 stated that women have less intention to apply for a leadership position at their current company than men. An independent samples t-test demonstrated a statistically significant gender difference in intention to apply for leadership, t(166) = -2.22, p < .05, with men (M = 4.13, SD = .76) reporting more attraction to leadership than women (M = 3.84, SD = .94; $\Delta M = 0.29$, $\Delta 95\%$ CI [.07, .62]). Thus, supporting hypothesis 1, findings suggest a gender gap in leadership interest.

Hypotheses 2 and 3 were tested using mediational regression analyses with parametric bootstrapping (n = 10,000). Mediational analyses were conducted in Jamovi, an R compatible statistical software. I test the prediction that gender differences in attraction to leadership are explained by leadership self-efficacy (H2) and expectations for follower mistreatment (H3). Results for mediational analyses are reported in Table 3-2 and Figure 3-1.

In hypothesis 2a, I predicted that women will have lower leadership self-efficacy than men. Results demonstrated leader self-efficacy was not predicted by gender (b = -0.09, p > .05) such that women reported the same mean levels of leader self-efficacy (M = 4.05) as men (M = 4.15). Thus, hypothesis 2a was not supported. Hypothesis 2b predicted that women have less intention to apply for leadership due to lower leadership self-efficacy. Though leader self-efficacy predicted attraction to leadership (b = .46, p < .001), the indirect effect of gender on attraction to leadership through LSE was non-significant (b = -.04, p > .05). Together, hypothesis 2 was unsupported. Thus, leader self-efficacy does not explain the gender gap in intention to apply for leadership positions because men and women see themselves as equally capable of being leaders.

Table 3-2.

Mediation Results with Bootstrapping Procedures Predicting Attraction to Leadership

Mediator	Effect	coefficient	Lower	Upper	SE	Z
	Direct (Gender → Attraction)	-0.24†	48	.02	.13	-1.85
Leader Self-						
efficacy						
	Indirect	-0.04	-0.13	.05	.05	88
	gender → LSE	-0.09	27	.10	.10	91
	LSE → Attraction to leadership	0.46**	.25	.68	.11	4.22
Anticipated						
Mistreatment	* *	0.01	0.5	0.2	0.2	70
	Indirect	-0.01	05	.03	.02	73
	gender → Anticipated Mistreatment	0.10	12	.31	.11	.87
	Anticipated Mistreatment → Attraction to		34	.04		
	leadership	-0.15			.10	-1.61
	Total	-0.29*	55	03	.13	-2.22

Note: n = 168. Unstandardized coefficient. *p < .05, **p < .01, † p < .10 SE is standard error. Confidence interval predicted with parametric bootstrap.

In hypothesis 3a, I predicted that women expect more mistreatment when acting as leaders than do men. Results did not support that women anticipate more follower mistreatment (M = 2.32) than men (M = 2.23, b = .10, p > .05). Hypothesis 3a was not supported. Hypothesis 3b predicted that women will be less attracted to a leadership position than men due to heightened anticipation of follower mistreatment. The indirect effect of gender on attraction to leadership through anticipated mistreatment was not statistically significant (b = -.01, p > .05) and expectations of mistreatment did not predict attraction to leadership (b = -.15, p > .05). Together, hypothesis 3 was not supported.

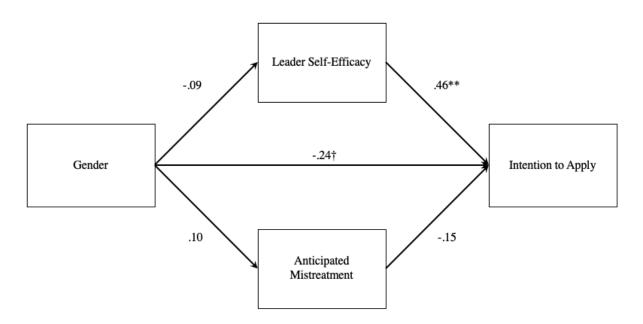


Figure 3-1. Results for mediational model testing Hypothesis 2 and 3. Note: n =168. Unstandardized coefficient. *p < .05, **p < .01, † p < .10.

Exploratory Analyses for Survey Component

The above results show that there are gender differences in applying for leadership, but this is not explained by self-efficacy or mistreatment in leadership roles as expected. We explored these null effects in the following ways. First, consistent with role congruity

explanations, we tested whether the respondent having more gender- or leader-stereotypical characteristics (i.e., agency or communality) determine the effect of gender on self and other beliefs. Second, we assess these respondents' leadership experiences as explanations for, or conditional factors of, the gender gap in intent to apply for leadership. Third, we test the influence of workplace gender context on self and other beliefs.

Stereotype incongruence. Based on role congruity, we might expect that women on average see themselves as less agentic and more communal than men and thus are more incongruent with leader roles³. As such, respondent's agency and communal traits could explain the gender difference in intent to apply for leadership. Independent samples t-tests demonstrated a marginally significant group difference in agency traits (t(148) = 1.70, p < .10) such that men rated themselves as more agentic (M = 3.50, SD = .58) than women (M = 3.35, SD = .60) as expected by gender stereotypes. However, men and women did not differ in communality traits (t(166) = -1.52, p > .10). In fact, gender (coded 1 = men and 2 = women) did not significantly correlate with agency (r = -.13) and communality (r = .12) traits, though there were trends in the expected directions. Overall, stereotypical traits did not emerge and so could not explain gender differences in intentions to be leaders.

Another possibility is that gender differences in leadership self-efficacy and mistreatment did not emerge because they depend on the respondent's levels of agency and communality. In other words, perhaps the extent to which women are agentic (or communal) is more likely to determine leader self-efficacy for women than it is for men (Bandura, 2000; Eagly & Kauru, 2002). At the same time, women who are more agentic and less communal are violating their gender role, and thus may anticipate more mistreatment than women whose traits are more

³ Men and women did not differ in their perceptions of leader stereotypes, and thus, were considered a constant while the respondent's traits were used to indicate incongruence from leader stereotypes.

congruent with their gender role, as found previously (Berdahl, 2007; Rudman & Fairchild, 2004).

Moderated regression analyses (see Table 3-3 and 3-4) revealed that, based on the interaction coefficients, a gender difference in leader self-efficacy was not contingent on the individual's agency (b = .05, p > .05) or communality (b = .25, p > .05). However, the more agentic or communal the individual, the higher their leadership self-efficacy ($b_{agentic} = .41$, p < .001, $b_{communal} = .19$, p < .05). This aligns with the expectation that leadership should be agentic and that agentic individuals would see themselves more qualified to be a leader. It may suggest that communality is a characteristic seen as beneficial to being a good leader. It is also worth considering, however, that this relationship may be a statistical artifact of an acquiescence response bias, such that participants who are more agreeable rate items more positively (Bentler et al., 1971).

Results still demonstrated a lack of gender differences in anticipated mistreatment regardless of individual agency (b = -.19, p > .05) and communality (b = .06, p > .05). However, results revealed a main effect of communal self-characteristics on anticipated mistreatment from followers such that those who are more communal anticipate less mistreatment from followers, (b = -.37, p < .001). Thus, communal individuals (men and women) see themselves as less likely to experience follower mistreatment than less communal individuals.

Leadership experience. I tested to see if there were gender differences in previous leadership experience, which might then explain intentions to lead in the future. Participants were coded as having leadership experience (1) if they either reported previous leadership experience, currently holding a leadership position or both; All other participants were coded as

Table 3-3.

Exploratory test of conditional Effects of Gender on Leader Self-Efficacy and Anticipated Mistreatment

	Leader Self-Efficacy				Anticipated Mistreatment					
	b (SE)	95%	6 CI	t	p	b (SE)	95%	CI	t	p
Agency										
-1 SD	08(.11)	31	.15	70	.483	13(.15)	16	.42	.88	.380
At the mean	01(.08)	17	.15	14	.886	07(.11)	14	.28	.62	.537
+1 SD	.06(.12)	17	.29	.479	.633	.00(.15)	30	.30	.01	.992
Communality										
-1 SD	28(.13)	53	02	-2.16	.032	.15(.15)	14	.44	1.01	.316
At the mean	14(.09)	31	.03	-1.56	.120	.15(.10)	05	.35	1.47	.144
+1 SD	.00(.12)	24	.24	.01	.989	.15(.14)	13	.43	1.06	.291

Table 3-4.

Exploratory Test of Effect of Gender on LSE and Anticipated Mistreatment interacting with individual characteristics

	I	Leader Self-Ef	Anticipated Mistreatment					
Variables	b(SE)	95% CI	t	p	b(SE)	95% CI	t	p
Main Effects								
Gender	-1.16 (.61)	[-2.37, .04]	-1.91	.058	.54 (.77)	[98, 2.05]	.70	.484
Agentic	0.41(.07)	[.27, .56]	5.61	<.001	04(.09)	[23, .14]	47	.638
Communal	0.19 (.07)	[.04, .33]	2.57	.011	37 (.09)	[55,19]	-3.98	<.001
Interaction								
Gender x Agentic	0.05(.15)	[24, .34]	.36	.722	19(.19)	[55, .18]	-1.01	.315
Gender x Communal	0.25 (.15)	[04, .54]	1.68	.095	.06(.19)	[30, .43]	.35	.726

not having leadership experience (0). A 2 (gender) x 2 (leadership experience) chi-squared test was used. The results suggest that leadership experience is not significantly different between the men and women in the sample (X^2 (1, N = 168) = .42, p > .05). Further, correlations show leader experience is correlated with leader self-efficacy, as expected (Bandura, 1986) but is unrelated to any of the other variables in the hypothesized model. Thus, leader experience cannot explain gender differences for intention to lead.

It is possible that prior leadership roles influence men and women differently, such that it builds self-efficacy for men but tears it down for women; and increases mistreatment for women but not men. This suggests a 2 (gender) x 2 (leader experience) interaction on the self and other beliefs. Results revealed that although leadership experience predicts leadership self-efficacy (b = .22, p < .05, the effect of leadership experience does not vary by gender (b = .04, p > .10). Results also revealed leadership experience neither predicted anticipated mistreatment (b = .13, p > .10) nor did it interact with gender to predict anticipated mistreatment (b = .02, p > .10).

Gender Context. Based on previous research emphasizing the influence of the gender context of one's workplace on perceptions of leadership and gender (e.g., Paustian-Underdahl et al. 2014), we might expect gender context to influence how one sees themselves with respect to self and other leadership beliefs. As such, beliefs about who is an effective leader or who will be mistreated may be stronger for women in a male dominant context. Using an OLS regression, results suggested that the lack of relationship between gender and leadership (b = -.06, p > .05) self-efficacy is not contingent on one's gender context (b = .00, p > .05). Similarly, analyses revealed the lack of relationship between gender and anticipated mistreatment (b = .17, p > .05) was not contingent on gender context (b = .00, p > .05).

Targeted Recruitment

One goal of the study was to explore targeted recruitment as a potential solution to reduce a gender gap in attraction to leadership which is done using two methods: survey and experiment. By using complementary methods, we are able to examine both the descriptive experience of recruitment for leadership as well as the causal effects of targeted recruitment on intent to apply.

Survey method. In the descriptive portion of this investigation, participants who reported having a previous opportunity to apply for leadership (i.e., n = 128) responded to questions regarding how they heard about the position. Of those, half of women reported hearing the position being announced through a general recruitment announcement (51%), while the other half (49%) were individually targeted for the position (i.e., announced to a few specific people or to only them). Meanwhile, most men reported being individually targeted for the position (65%) while approximately a third heard about the position through a general recruitment method. (35%). The results of a 2 x 2 *chi*-squared test suggest these proportions different from expected with marginal statistical significance (X^2 (1, N = 128) = 3.20, p < .10). Despite only marginal support, the reported differences may have practical significance in suggesting that men hear about leadership positions in a more targeted way whereas women hear about leadership positions when there are announced to everyone.

When asked if they were interested in the position that had previously been announced (whether or not they applied) women were marginally less interested in applying for the position (M = 4.65, 95% CI [4.19, 5.11]) than men (M = 5.19, 95% CI [4.82, 5.57]) according to an OLS regression $(R^2 = .03, p < .10)$. This is consistent with Hypothesis 1, and the findings from the survey data in this sample. However, after including the recruitment method as a simultaneous

predictor, gender no longer predicted interest in applying (p > .05) while the variance explained in interest to apply significantly improved ($\Delta R^2 = .06$, p < .01). Based on the condition means, participants who heard about the position through individual-targeted recruitment (announced to only them or a select few; M = 5.29, SE = .19) had more interest in the position than those who heard about the position through a general announcement (M = 4.43, SE = .22, p < .05). When the gender by recruitment method interaction was introduced to the model, the variance explained did not significantly improve and the interaction did not predict interest in applying for leadership above and beyond the main effect of recruitment method.

Experimental method. In the experimental portion of this investigation, we tested Hypothesis 4 which states women who receive an individual-targeted recruitment message (i.e. a call for your application) are more likely to apply for leadership positions than women who only receive a general call for applications or women who receive a gender-oriented targeted recruitment (i.e. a call for women to apply). To examine the effects of the experimental manipulation of targeted recruitment on women's likelihood to apply to a hypothetical leadership position at their company (0-100%), I conducted a between-person ANOVA to compare the three levels of recruitment with only the women in the sample. Results from the experiment (see Figure 3-2) reveal that the recruitment method used had a marginally significant effect of likelihood to apply for the leadership position (p < .10). A post hoc test demonstrated that using a individual-targeting message (you should apply) was significantly more effective in improving one's likelihood to apply than the general recruitment method, t(67) = 2.27, p < .05, $\Delta M = 19.41$. The group-targeted recruitment did not differ in effectiveness compared to the individualtargeting strategy $t(67) = .89, p > .05, \Delta M = 8.03$, and the general recruitment, t(67) = 1.37, p > 0.05.05, $\Delta M = 10.86$. Individual-targeted recruitment practices increased women's likelihood to

apply compared to a general announcement, but not compared to group-targeted recruitment, partially supporting hypothesis 4.

To examine if the effects of targeted recruitment on likelihood to apply differentially influence women and men, I also conducted a 2 (respondent gender) by 3 (recruitment condition) between-person ANOVA. Results (see Figure 3-2) demonstrate that gender did not influence likelihood to apply for the leadership position (F(1, 161) = .10, p > .05; $M_{\text{women}} = 67.7$, SE = 3.43; $M_{\text{men}} = 66.3$, SE =2.91). Further, the effectiveness of targeted recruitment was not contingent on gender (F(2,161) = 0.03, p > .05). Men and women were similarly likely to intend to apply for leadership when individually targeted ($t(161) = -.31, p > .05, M_{\text{men}} = 77.0$, SE = 4.73, 95% CI [67.6, 86.3] $M_{\text{women}} = 76.8$, SE = 6.35, 95% CI [64.3, 89.3]) and after receiving the general announcement ($t(161) = -.35, p > .05, M_{\text{men}} = 55.7$, SE = 5.47, 95% CI [44.9, 66.3], $M_{\text{women}} = 57.4$, SE = 5.37, 95% CI [46.8, 68.0]). Even more surprising, group-targeted recruitment (women) was just as effective at improving men's intent to apply ($t(161) = -.22, p > .05, M_{\text{men}} = 66.1$, SE = 4.87, 95% CI [56.5, 75.7]) as women ($M_{\text{women}} = 68.8$, SE =6.05, 95% CI [56.8, 80.7]). In other words, a leadership position targeted towards women was not discouraging to men and in fact encouraged them apply to the same degree as women.

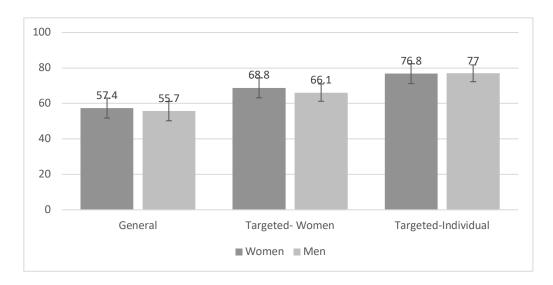


Figure 3-2. Intention to Apply by Targeted Recruitment Method and Gender.

Main Study Discussion

The purpose of the main study was to further identify the state of a gender gap in intention to apply for leadership opportunities and to examine the role of self- and other-beliefs. As expected, but contrary to the pilot with younger respondents, women expressed less intention to apply for leadership positions than men. However, this difference was neither explained by negative self-beliefs (e.g., "I am not capable of leading"), a finding which aligns with more recent work on leadership self-efficacy (Seibert et al., 2017), nor negative other-beliefs (e.g., "followers will retaliate"). Further, exploratory tests ruled out explanations for gender differences in leader-stereotypic traits (i.e., agency), or prior leadership experience. Finally, when asked to consider a specific leadership position that was held constant for all in the experimental portion, there was no gender difference in interest. Overall, there is weak evidence for gender disparity in leadership beliefs or intentions.

I further explored whether gender disparity might emerge under certain conditions and not others, thus weakening the overall effect. Results of the exploratory moderated regression revealed that agency or communality of the individual did not moderate the effect of gender on

leader beliefs or interest. Instead, regardless of gender, those who have higher agency or higher communality also believed they were more capable of leading compared to those with low agency or communality. Further, I did not find that prior leadership experience moderated whether gender predicted self-efficacy and mistreatment beliefs—that experience worked similarly to increase self-efficacy for both men and women.

Finally, these adult workers' experience with targeted recruitment might enhance intention to apply for leadership. Across the survey and experimental design, individualized recruitment increased intention to apply for leadership compared to a general call. Yet, we learned that women employees were somewhat less likely than men employees to learn about their leadership roles through individualized recruitment. Interestingly, men's interest in applying after receiving the recruitment targeting women was boosted at the same rate as women. This may reflect a desire of men to lead and have a proactive role within organizations that signal the inclusion of diversity. While this test of targeted recruitment reveals an effective solution to raising motivation to apply to leadership and potentially improving the quality of an applicant pool, further work needs to be done to understand the dynamics of targeted recruitment strategies related to leadership.

The main study improved upon the pilot by drawing on an employed sample and asking participants about leadership opportunities that are more directly related to their current organizational experiences. However, the main study still has limitations that constrain the inferences we can draw from its results. For example, asking participants to think about contrived leadership opportunities within their current organization may not create the same reactions as when real leadership opportunities with real benefits and consequences to the

employee emerge within their organizations. The lack of realism may have restricted how much consideration participants gave to their leadership self- and other-beliefs.

Chapter 4

General Discussion

Despite extensive attention towards understanding the gender gap in leadership through discriminatory selection practices and negative evaluations of women leaders (e.g., Eagly & Karau, 2002; Eagly, et al., 1992; Glass & Cook, 2016; Heilman, 2012; Lyness & Heilman, 2006; Vial et al. 2016) little attention has been given to understanding women's beliefs in leadership and how they affect applying. Thus, the overall aim of the current study was to offer theoretical, empirical and practical contributions to understanding women's attitudes towards applying for leadership positions. Counter to role congruity theory, the incongruence between women and leadership characteristics seem to play little role in explaining why women and men apply for leadership positions. Over the remainder of this discussion, I will address the key takeaways of the two studies, limitations that constrain interpretation, future directions, and the practical implications of the findings for organizations.

Main Findings

Across two studies, the evidence for a gender gap in intention to apply for leadership is mixed (see table 4-1 for summary). While women and men in the student sample reported no difference in their intention to apply for leadership, a gender gap emerged in the working sample—Women had lower intentions to apply for potential leadership positions in their company than men. Yet again, when asked to think of a specific leadership position where details were controlled, women were just as likely to intend to apply as were men. These mixed

findings may support a larger trend in the leadership gap literature—the gap in leader emergence is diminishing over the last few decades (Badura et al., 2018).

Despite popular assumptions that women are less likely to apply to be leaders due to lower confidence or heightened awareness of retaliation against women who hold power (e.g., Lean In), the present findings suggest neither plays a meaningful role in preventing women from applying. Although women (vs. men) still report greater role incongruity between their gender and leaders, showing initial support for the application of role congruity theory to self-characteristics (Eagly & Karau, 2002), role incongruence was not associated with intentions to apply. Thus, although there is evidence to suggest a gap may exist, role congruity explanations may not help to understand why women would pursue leadership less than men. The lack of support for role congruity explanations suggests this framework may be better suited for understanding gender bias in evaluations of gender and leadership than for understanding internalized beliefs about the self.

Furthermore, given women had a lower interest in applying for leadership roles available to them in their current organizations than men did, there must be different explanations that are not captured in the present study. First, a work-family explanation suggests that part of the reason for fewer women in leadership is due to "opting out" of the workforce to engage more with family (Kossek, Su & Wu, 2017). Women are more likely to identify with their family and work equally while men are more likely to be work-centric (Kossek & Lautsch, 2012). As a result, women prefer jobs that are flexible for family time (Kossek & Michel, 2011). Taking on a leadership role may force women to choose work responsibilities over family responsibilities, and thus push them to become work-centric, sacrificing the attention they could once provide

Table 4-1.

Summary of Gender Differences Across Pilot and Main Study

Study	Sample	Method	Dependent Variable	Gender Difference
Pilot	Students	Imagine future leadership opportunities	Intention to apply	No
Survey	Employees	Imagine <i>current</i> leadership opportunities	Intention to apply	Yes
Survey	Employees	Recall actual leadership opportunities	Interest in the position	No*
Survey	Employees	Actual leadership experience	Current or past leadership experience (yes/no)	No
Vignette	Employees	Described leadership opportunity	% likelihood to apply (0-100)	No

Note. * = Marginal Significance. Each case of a gender differences suggested men were more inclined to apply for leadership then women.

their family whereas men may already be work-centric and may not see sacrificing family responsibilities as heavily as women.

A second explanation is a "choice" explanation for "opting out" of leadership opportunities (Kossek et al., 2017). While women may feel *capable* of being leaders, that does not mean women *want* to be leaders. While research has shown men and women anticipate equal positive outcomes when promoted to higher levels in an organization, women anticipate more *negative* outcomes (e.g., stress/anxiety, sacrifices, time constraints, goal conflicts) and see promotions as less desirable overall (Gino et al., 2015). Further, not all leadership positions are the same and the types of leadership positions available to men or women may differ in terms of their desirability such that women are more likely to be offered leadership opportunities when they are less desirable. This idea might explain why women in our study had less intention to apply than men until the type of leadership position available was held constant in the experiment. Altogether, the perceived costs of leadership may outweigh the benefits more for women than men, leaving men to be more attracted to and likely to apply to these positions.

Despite considering a situation that makes them likely to be the target of follower mistreatment (e.g., Berdahl, 2007, Rudman & Fairchild, 2004), results from the main study reveal a lack of anticipation of mistreatment for women compared to men. For organizations seeking women to apply for leadership, the lack of anticipation of mistreatment is encouraging. However, this finding may be concerning as women may not be fully aware of their potential to be mistreated. A lack of gender difference in anticipated mistreatment as a leader could be explained in a few ways. First, literature suggests people tend to be overconfident in assessing future events (Kidd & Morgan, 1969; Fischoff & Beyth, 1975; Blascovich, Ginsburg, & Howe, 1975) and thus women may be more optimistic about how they will be treated in leadership.

Second, mistreatment towards women who violate gender roles may be on the decline as agentic women become more normalized and movements aimed at preventing aggression towards women emerge (e.g., #MeToo, Times Up movement). Future research should address the potential for a lack of gender difference in anticipated mistreatment in leadership or in general and the implications it may have for women who become leaders and face unexpected follower mistreatment (e.g., shorter tenure, confirmation of stereotypes about women being bad leaders).

Limitations and Future Directions

Although a multi-study approach allows the current set of studies to address the shortcomings of either study individually, some limitations remain unaddressed.

First, we focus on *intention* to apply for leadership positions, limiting our ability to understand how intention to apply translates into application behavior. This focus on intention and attitudes towards application was largely due to the descriptive nature of our study and an inability to manipulate real-world leadership opportunities. Thus, intention to apply served as a proxy for application behaviors; proxies are commonly used when the desirable measure is not available, and organizational boundaries prevent the measurement of the key variable (Carlson & Herdman, 2012). Although the intention to apply is not equivalent to applying, we address this concern by selecting outcome measures, across both studies, that ask participants their *likelihood to apply* if a leadership opportunity were to arise. We further address this concern in the experiment by asking participants to explain to their supervisor why they would or would not be interested in applying, imitating an informal application process. While this may not directly affect our conclusions about a gender gap in *intent* to apply, it limits our ability to generalize the gender gap to the rates women and men *actually* apply for leadership opportunities in their organizations.

Second, common method variance (CMV) is always a concern when using self-report survey methods as this method can bias observed relationships through systematic measurement error. We attempted to overcome this concern across both studies by varying the response scales and including quality checks to reduce consistency biases in responding. In the pilot, participants were randomly assigned to either respond to gender stereotypes at the beginning or end of the survey to rule out ordering effects due to priming (Podsakoff et al., 2003). Further, for my attitudinal constructs (leadership self-efficacy, anticipated mistreatment, intention to apply), self-report is the most appropriate method of measurement. Following suggestions from Podsakoff, MacKenzie, & Podsakoff (2012), future research on gender and leadership application could further address the concern of CMV by pairing self-report attitudes with archival measures of application to leadership positions. Additionally, researchers could separate measures temporally, proximally, or psychologically, to reduce the influence of measures on one another.

Third, methodologically, the omission of certain variables and analyses may limit our conclusions. For instance, we do not test other possible mechanisms for why there might be gender differences in intent to apply for leadership. Further, in the experimental portion of the main study, we do not obtain participants' beliefs about the presented leadership opportunity, and thus, cannot test why targeted recruitment improves attitudes towards leadership. Future research should investigate the assumption that targeted recruitment directed at an individual improves their likelihood to apply by improving their self- and other- beliefs.

Fourth, some of our findings may be biased due to statistical artifacts. For example, in the pilot study, the sample consisted of more women than men (76.4% women) which has implications for unequal variance between samples, breaking the assumption of equal variance.

Although this artifact was addressed using a statistical method that accounts for unequal variance

due to uneven group size (i.e., Welch's test), it is still worth considering group differences using a sample with equal gender distribution. In the experiment, the lack of group differences could have reflected accurate results, or the lack of differences could be the product of being underpowered to detect true differences between conditions. Finally, across both studies, variables such as leadership self-efficacy, anticipated mistreatment and intention to apply were skewed, potentially biasing results.

While the present investigation provides an initial test of targeted recruitment strategies, the use of targeted recruitment for leadership positions needs further investigation. For example, factors such as *who* targets the recruit (e.g. male vs. female, coworker vs supervisor) or *how many times* the target receives targeted recruitment signals may also be important factors in encouraging women to apply for leadership positions. Evidence suggests that recruiter characteristics (e.g., race, gender) are valued more by recruits from minorities than non-minorities (Thomas & Wise, 1999) meaning women may be more encouraged to apply for leadership when targeted by diverse recruiters.

In addition, future research should address other potential reactions to targeted recruitment methods such as why men were more inclined to apply after the organization uses diversity valuing signals. For example, men who share values of workplace diversity may be more attracted to leading in an organization that signals this value. On the other hand, similar to the negative reactions of whites in response to affirmative action initiatives targeted at blacks (James et al., 2001), men may consider the diversity valuing signal to suggest the organization is more concerned with finding a leader for their surface-level diversity (being a woman) rather than qualifications as a leader and may push men to think "why not me?" if they consider themselves qualified. For example, in response to the group-targeting recruitment, a few male

participants responded to their supervisor's email in ways that express their negative attitudes towards the practice such as one participant saying "I feel you're more interested in a woman putting me at an unfair disadvantage" or another saying "females are preferred for this position, just for the sake of 'diversity', which is pretty sexist". They may also believe, based on stereotypes about women, that if the organization is targeting women for the position, then the position may not be very challenging, and they too are qualified.

Practical Implications

The present findings of the gender gap in interest for leadership, and the role of targeted recruitment to diversify applicants, have practical implications for employees, managers, and organizations. First, for organizations seeking women representation in leadership, it is important to note that women were less interested in applying to these roles than men in the working sample. Although there is no support that this is due to low self-efficacy or anticipated mistreatment, it is helpful to be aware of a potential gap in the potential applicant pool. Should organizations address this gap, they should do so in a way that avoids tokenism, or the practice of including women to make only a symbolic effort towards gender inclusion. Women's awareness of their token status leads to greater anticipation of stereotype bias and a desire to leave the situation in which they are a token (Cohen & Swim, 1995) meaning women may avoid leadership opportunities.

Organizations and managers who have identified a gap in application to leadership positions should take diagnostic steps to consider if this gap is emerging earlier in the leadership pipeline. Ensuring women have equal access to opportunities earlier in the pipeline such as challenging developmental opportunities, mentorship, leader role-modeling, and network

building events (Cullen-Lester et al. 2016; Fitzsimmons et al. 2014; Ramaswami et al. 2010) may mitigate a leadership gap at the application stage.

Provided that some organizations are motivated to improve the diversity of leadership within their organization, including gender diversity, findings of targeted recruitment are promising. Primarily, we have provided initial evidence that individualized forms of targeted recruitment (e.g. "you should apply for this position") improve the rate at which women apply with similar rates of application for men. Thus, methods of targeted recruitment may be a useful tool for encouraging women to step up for leadership roles. By improving the quantity of women applicants and perhaps gathering additional male applicants as well, the average quality of the selection pool for leadership positions may generally improve allowing organizations to select the best available leaders.

Individual-targeted recruitment, when implemented in organizations, involves two steps. First, organizations should identify qualified women. This can be done by identifying predictors of leader effectiveness such as cognitive ability, self-confidence and ability to overcome stress (Bass, 1990) and identifying women with these characteristics. Second, targeting qualified women with individualized recruitment messages that encourage them to apply. These encouragements should focus more on the woman's qualifications and fit for the position than seeking women for the position (i.e., token women, Cohen & Swim, 1995). By focusing on qualifications as they match the specific position, organizations can avoid the consequences of women believing they are targeted as a token woman, but additionally, provide a realistic job preview which in turn improves performance and prevents attrition should women apply for and become a leader (Avery et al., 2004; Breaugh & Starke, 2000).

Conclusion

Although extensive research has examined the gender gap in leadership, little is known about the existence of a gender gap in application to leadership positions. The current paper used a Role Congruity theory approach to consider why women may be less likely to apply for leadership positions. The evidence did not find strong support for the application of role congruity theory and its implications for self- and other-beliefs towards leadership. Although working women reported lower intentions to apply than men, this gap disappears in a student sample, highlighting the need for additional research on factors that either exaggerate or diminish the gender gap. Researchers and practitioners interested in issues of the gender gap in leadership should turn more of their attention to understanding how this gap may begin at the application stage of leadership.

Appendix

Recruitment Manipulations

Prompt:

"Imagine the company you currently work for is in search of a qualified individual to fill an open leadership role (example: supervisory role, project leader, department manager, committee chair, etc.) within your department. Below is a description of the position from HR:

In this position, you would have many responsibilities including setting goals for and assigning work tasks to those you supervise. As the leader, you would need to determine how to allocate department resources to different individuals or projects while also responding to any complaints you receive.

Being a leader means you would need to help boost morale, keeping your employees motivated to work. Finally, as the leader, you would need to complete quarterly employee performance ratings for each of your subordinates and deliver feedback to each employee about their recent performance, either good or bad.

The responsibilities of this job also come with several benefits. You will receive a 10-13% raise in your current pay as well as additional benefits.

A day after seeing the original job announcement from HR, you receive the following email from your supervisor:"

General Announcement Message:

Hi,

As many of you have heard there is a new leadership position open. Please let me know whether or not you are interested in applying and explain why or why not.

Best.

Sam

Personal Targeted Recruitment Message:

Hi,

As you may have already seen, a leadership position is available within the department. As someone who has filled a similar role in the past and knows what it takes to be successful in this role, I see several of the qualities necessary for the position in you. Having worked with you as a hard-working employee, I think this could be a great opportunity and I urge you to apply. Please let me know whether or not you are interested in applying and explain why or why not.

Best.

Sam

Women Targeted Recruitment Message:

Hi,

As many of you may have already seen, a leadership position is available within the department. As a department that values diversity, and given the lack of women currently holding leadership positions in the company, we highly encourage women to apply. I think this could be a great opportunity. Please let me know whether or not you are interested in applying and explain why or why not.

Best,

Sam

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