

The Glass Cliff: The contribution of social identity and gender stereotypes in predicting leadership preference and trust.

by

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Abstract

Obtaining successful leadership positions may be particularly challenging for females, as they may be preferred for failing positions (glass cliff), contributing to negative perceptions of their leadership capacity. A total of 291 male ($n = 118$) and female ($n = 173$) community members participated in a study investigating the influence of order of leader presentation, gender identification, and ability, benevolence, and integrity on leadership choice and trust in successful and failing scenarios. It was observed that regardless of gender (participant or leader) or scenario type, a primacy effect was evident in that there was a preference for the leader presented first in these scenarios. The data did not provide support for the glass cliff as females were not preferred for the failing scenario. However, characteristics consistent with gender stereotypes (benevolence) influenced whether the female leader was trusted, whereas gender inconsistent characteristics (ability) did not. Implications for female leadership are discussed.

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The Glass Cliff: The contribution of social identity and gender stereotypes in predicting leadership preference and trust.

Women have made progressively greater gains in organizational contexts, with increasing numbers of women entering traditionally male-dominated occupations (Statistics Canada, 2010). In Canada, female university graduates (58%) now outnumber male graduates and are becoming increasingly qualified to take on previously unattainable roles and have an increased presence in management positions (Statistics Canada, 2007; 2010). Despite the increase in highly qualified, capable women, it seems that those who aspire to upper management positions continue to experience gender discrimination, particularly in male-dominated environments. Specifically, females tend to be promoted less often than males with equal qualifications (Lyness & Schrader, 2006). Furthermore, if women do obtain a promotion, it is typically in a position previously held by another female employee (Lyness & Schrader, 2006), which limits their opportunities primarily to female-dominated positions. Thus, there is still a need to further understand society's perceptions of women in high-level leadership positions in order to gain a better understanding of the discrimination they continue to encounter.

The professional advances that women have made are accompanied by a new form of discrimination: The *glass cliff* refers to females being preferred only for precarious high-level leadership positions in companies that are likely to fail, and not being hired in stable, successful situations where males continue to be the favoured leadership candidates (Ryan & Haslam, 2005; 2007). These precarious positions are often perceived as good opportunities for females to perform as leaders since they would not have obtained the equivalent opportunity in a stable company (Ryan & Haslam,

2007). When these failing companies inevitably meet their demise, women are perceived as less successful in the leadership domain than their male counterparts (Ryan & Haslam, 2007).

Several factors might contribute to individuals being perceived positively in a leadership role. Trust is a fundamental component in this regard, and it is impacted by an individual's assessment of three factors; ability, benevolence, and integrity (Mayer, Davis, & Schoorman, 1995). In addition, it was suggested that the impact of both gender biases and social identity need to be considered as influencing perceptions of trust in leadership. Females are typically considered to be the more cooperative, benevolent sex (Buchan & Solnick, 2008; Niu & Rosenthal, 2009), but in general, individuals are more likely to trust members of their social ingroup and distrust the outgroup (Moy & Ng, 1996). This ingroup favouritism has particular relevance for females in the workforce, as they are more likely to belong to the outgroup in leadership contexts and therefore may be confined to failing, less desirable leadership positions. The present investigation will focus on the evaluation of gender identity and trust in relationship to leadership preferences for hypothetical failing and successful corporations.

Gender and leadership

Leadership has traditionally been perceived as a male-dominated domain. Schein (1973) found that individuals associated management characteristics with stereotypically male traits such as, being self-reliant, objective, direct, desiring responsibility, emotionally stable, and aggressive. In contrast, women were not associated with these typical management traits, but were perceived as being more communal, cooperative, and caring (Schein, 1973). The role congruity theory of leadership (Eagly & Karau, 2002)

suggests that these stereotypes are maintained through an individual's stereotypic expectations. Specifically, successful leadership continues to be associated with the agentic, task-focused qualities that individuals tend to identify as traits typical to the male gender. In contrast, the leadership role is incongruent with expectations of the more communal, cooperative female gender. This role discrepancy and difficulty in combining the divergent expectations of the female gender role and the leadership role further solidify leader-gender stereotypes. These incongruent role expectations contribute to the negative evaluation of a female's leadership potential and ability (Eagly & Karau, 2002).

Although, traditional, successful leadership tends to be associated with the male gender role, women now tend to be associated and stereotyped with a particular leadership style, known as transformational leadership, for which women are considered to possess the necessary traits (Burns, 1978; Eagly, 2002; Prime, Carter, & Welbourne, 2009). Transformational leadership is a more team-oriented, benevolent approach to management, focused on teaching, and inspiring subordinates to work toward common goals (Burns, 1978; Bass, 2008). This stereotype, of the caring, inspiring female leader has continued to influence inequality in the leadership domain, as successful, traditional leadership is still stereotypically associated with agentic qualities and the male gender role (Boyce & Herd, 2003; Eagly, 2007; Embry, Padgett & Caldwell, 2007; Heilman, Black, & Martell, 1995). As such, many females continue to be less respected as leaders and many individuals still prefer male bosses to females (Eagly, 2007).

Interestingly, acting against these stereotypes creates further difficulty for women. When females use a "gender inconsistent" leadership style (task-focused, agentic), they are perceived to have less satisfied subordinates than if they had used the stereotypically

feminine, transformational leadership style (Embry et al., 2007). Women face particular difficulty in male-dominated roles, where women are perceived as more interpersonally hostile and less liked, if they prove to be successful in a traditionally male leadership role (Heilman, 2004). However, when women use a “gender-appropriate” leadership style they are viewed as less effective leaders and are less respected by their subordinates (Eagly, 2007). This is particularly true for female leaders with male subordinates, as male subordinates tend to evaluate female leaders more negatively than do female subordinates (Ayman, Korabik, & Morris, 2009; Embry et al. 2007). Interestingly, it has been demonstrated that using a gender-inappropriate leadership style does not diminish the respect for male leaders. Indeed, males who are perceived as using a stereotypically feminine leadership style are considered to have more satisfied subordinates than if they had used a stereotypically masculine leadership style (Embry et al., 2007). In this regard, while females are often required to choose between being “liked” and being “respected”, males tend to achieve both, regardless of leadership style.

The Glass Cliff

The effectiveness of leadership styles might be expected to vary across situations, and gender biases might similarly occur regarding leadership preferences in different contexts. With more women obtaining high-level leadership positions, they are now confronted with a form of discrimination known as the glass cliff (Haslam & Ryan, 2008; Ryan & Haslam, 2005; 2007). This refers to the preference for leaders to be female in precarious positions in companies that are headed toward failure (Ryan & Haslam, 2005; 2007). Although these precarious positions are damaging to a female’s reputation as a leader and her subsequent career, they tend to be perceived as “good opportunities” for

the female candidate, but not for an equally qualified male (Haslam & Ryan, 2008). Leading a company during a failing situation further contributes to women being perceived as poor leaders in comparison to males. Specifically, when the company's situation worsens or does not improve, and attracts negative publicity for its failure, this is often attributed to the new female leadership, rather than the nature of the situation prior to the introduction of a female leader (Ryan & Haslam, 2007).

Gender disparity also exists in individuals' perspectives toward the glass cliff as well as explanations for this phenomenon. It was demonstrated that women were more likely than men to acknowledge and experience the prevalence of the glass cliff and the danger it creates for female career advancement. This was particularly true for women who were highly identified with their gender. Women were also more likely believe that sexism, ingroup favouritism, and female expendability were responsible for the glass cliff. Female participants expressed that it was difficult for women to break into existing networks of management. Additionally, females believed that women were often treated as expendable resources in a company, such that placing them in a precarious position was a low risk for the company since a female is perceived as less valuable than a male employee. Both genders agreed that a lack of networks available to females as well as gender stereotypes in the workplace contributed to the glass cliff. Furthermore, both men and women believed that in some cases women have specialized capabilities that are particularly suited to handling precarious situations, such as stronger coping skills and risk management capabilities. Company factors were also suggested as an explanation for the glass cliff in that, these female promotions are related to the company's desire to draw attention to their policies of equality. Some men, however, tended to question the

existence of the glass cliff and the legitimacy of the construct. Of these male participants, most believed that in many cases a female is most likely chosen for a failing leadership position because she is the best candidate. They suggested that the woman's skills in comparison to her competition, rather than gender are the deciding factor in leadership appointment (Ryan, Haslam, & Postmes, 2007). This creates an additional barrier for women in top positions as this issue may not be acknowledged by her male managers and may further contribute to the perception that the endangered companies failed due to the female leadership.

Glass cliff positions can be very stressful for female leaders in that these women are faced with the constant threat of failure. These high levels of stress in the workplace can contribute to women becoming "disidentified" with their organization, which can contribute to increased turnover in occupations (Ryan et al., 2007). On the basis of interviews with women in leadership positions in a male-dominated industry, it was suggested that women are often presented with ambiguous job descriptions with unclear expectations that they feel contribute to their likelihood of failure. Additionally, many of these women felt that they lacked the support and resources that their male counterparts would receive in the same situation, or are not presented with equal opportunities to their male counterparts (Wilson-Kovacs, Ryan, & Haslam, 2006; Litzky & Greenhaus, 2007). It is understandable that women may become discouraged by this environment, yet they are perceived by the general public to be "opting out" of their careers, when in fact many of them feel as though they are being forced out by the nature of their leadership assignments (Ryan et al., 2007). These perceptions contribute to the stereotype that females do not desire leadership roles to the same extent as males (Ryan et al., 2007).

Trust

Trust is a fundamental component in achieving and maintaining successful leadership, as it contributes to positive leader-subordinate relationships that influence job satisfaction, organizational and goal commitment, and decreased turnover (Dirks & Ferrin, 2002), as well as increasing team effectiveness in a crisis situation (Rousseau et al., 1998). However, before a relationship can develop with a leader, first impressions of a leader's trustworthiness must be considered. These initial impressions may be influenced by an individual's general propensity to trust others (Colquitt, Scott, & LePine, 2007; Gill et al., 2005), or group based biases (Niu & Rosenthal, 2009; Foddy, Platow, & Yamagishi, 2009; Johansson-Stenman, 2008).

Biases related to trustworthiness must be considered as a factor which may influence leadership perceptions. Recently, research has begun to focus on group-based trust and "trust discrimination" of particular social groups (Niu & Rosenthal, 2009; Foddy, Platow, & Yamagishi, 2009; Johansson-Stenman, 2008). In this regard, initial perceptions of trustworthiness are based on an individual's biases related to a particular social group and their degree of identification with their own social group. Indeed, it was reported that social identity (Hogg, 2001; Haslam & Platow, 2001; Foddy, Platow, & Yamagishi, 2009) and discrimination experiences (Moy & Ng, 1996) can impact leadership perceptions. Understanding these biases in the leadership domain could lead to a clearer understanding of the barriers facing women and other social minorities in the workforce.

Ability, Benevolence, and Integrity

The decision to trust a leader depends in part, on an individual's perceptions of trustworthiness of that leader (Mayer, Davis, & Schoorman, 1995; Gill et al., 2005). The organizational model of interpersonal trust (Mayer, Davis, & Schoorman, 1995; 1999) suggests that three factors constitute the concept of trustworthiness; ability, benevolence, and integrity. Ability is a set of competencies that make a leader qualified and deemed capable of occupying a specific leadership position (Mayer, Davis, & Schoorman, 1995). Benevolence is an individual's perception that the leader is willing to do good towards others and show selfless concern for the needs of others (specifically the individual choosing to trust) (Mayer, Davis, & Schoorman, 1995). Integrity is the perception that the leader follows a set of principles that are deemed as acceptable by the trustor (Mayer, Davis, & Schoorman, 1995; Gill et al., 2005). Each of these factors contributes to an individual's perception of the leader's overall trustworthiness. However, it seems that the value placed on each of these factors differs on the basis of gender (Golesorkhi, 2006) and the nature of relationship (leader vs. co-worker) (Knoll, 2008). In a study focusing on the value of each trustworthiness factor in co-worker relationships, men and women equally valued ability as the most important factor (Golesorkhi, 2006). However, women placed more importance on benevolence, integrity and cultural similarity than did men (Golesorkhi, 2006). Interestingly, within a particular culture, men and women did not vary on the value placed on each trait (Golesorkhi, 2006). Furthermore, the nature of the relationship could have an impact on the importance placed on each of these factors, as benevolence and integrity are valued most when trusting both supervisors and peers, but all three factors are valued equally when trusting a subordinate (Knoll, 2008).

In summary, the impact of a leader's gender on subordinate trust perceptions has not been studied directly; however, based on previous literature, males are generally perceived to have stronger leadership ability than females (Eagly, 2002; 2007), and a high level of ability may even be considered a negative aspect for females (Heilman, 2004). In contrast, females are generally considered to be the more benevolent, cooperative gender (Niu & Rosenthal, 2009; Buchan & Solnick, 2008), as well as more caring leaders (Prime, Carter, & Welbourne, 2009). As such, gender biases regarding trustworthiness could impact trust in leadership in various situations.

Social identity

Social identity comprises an individual's conceptualization of oneself as a member of a particular social group and how this group membership contributes to that individual's self-image (Tajfel & Turner, 1986). Individuals are members of numerous social groups, each of which contribute to one's "social identity." As gender may impact trustworthiness perceptions in leadership, it is necessary to consider an individual's social identity as a member of their gender group in contributing to trust in leadership

As women are often a minority in leadership positions, and might hence be perceived as representing the "outgroup," this can influence perceptions of their leadership effectiveness and trust. Specifically, the social identity perspective of leadership (Hogg, 2001; Haslam & Platow, 2001) suggests that perceptions of leadership effectiveness are based on both an individual's degree of identification with a particular group, and the extent to which the leader is representative of that group (Hogg, 2001; Haslam & Platow, 2001). Individuals who identify more strongly with their social group perceive members of that group as being more effective leaders than outgroup members

(Hogg, 2001). Furthermore, Haslam & Platow (2001) found that individuals were most willing to support a leader who openly favoured ingroup members. This view contributes to the explanation for minority disadvantages in leadership, in that members of the social “outgroup” may be viewed as less prototypical than the ingroup and therefore less effective leaders (Hogg, 2001). For women in leadership roles, this is especially important as most men are responsible for organizational decision-making and may perceive a female leadership candidate as less prototypical, less effective, and therefore less suitable for traditional, successful, stereotypically male leadership positions (Ryan & Haslam, 2007).

Social identity also contributes to differences in trust perceptions of the social ingroup in comparison to the outgroup. In general, individuals tend to favour their social ingroup and distrust the outgroup (Foddy, Platow, & Yamagishi, 2009; Moy & Ng, 1996). It has been demonstrated that perceptions of trustworthiness tend to decrease with social distance (Johansson-Stenman, 2008). For example, industry workers as a group tended to believe that other industry workers were more trustworthy than university educated individuals, and vice versa (Johansson-Stenman, 2008). Similarly, individuals tended to perceive members of their own religious groups as being more trustworthy than other religious groups (Johansson-Stenman, 2008).

Interestingly, conflicting results have been found regarding trust discrimination and gender groups. In a study using the “trust game” (participants are provided with an amount of money (e.g., \$10) and are asked to send some of that money to another participant as well as indicate their expectation of the amount they will receive in return), it was demonstrated that participants were likely to send higher amounts of money to

their own gender group, and expect more money in return (Bonein & Serra, 2009). Thus, it was suggested that participants perceived their own gender group to be more trustworthy than the outgroup. In contrast, it was also found that both genders considered women to be the more trustworthy of the two sexes (Buchan, Croson, & Solnick, 2008; Niu & Rosenthal, 2009; Orbell et al., 1994). Specifically, both males and females expected women to cooperate and return more money in the trust (investment) game (Buchan, Croson, & Solnick, 2008). Conversely, men were generally more trusting of others and tended to give more money to other participants (Buchan, Croson, & Solnick, 2008). Furthermore, in a study regarding trust discrimination, women were the only socially subordinate group trusted more than the socially dominant group (Niu & Rosenthal, 2009). These findings indicate that although females remain a social outgroup in the leadership domain, in certain contexts (particularly those that conceptualize trust as an expectation of cooperation), females are trusted more than males.

Primacy Effects (Order)

Perceptions of leadership may be affected by the order of leader presentation. Consistent across a variety of contexts, order of presentation affects an individual's rating of the first and second option in a particular sequence. Specifically, the first option tends to be rated more favourably than subsequent options. It has long been known that order effects and person perception influence judgment of others (Anderson, 1965), where information given first was given more attention and thus rated more highly than subsequent information. Furthermore, this has also been demonstrated in individuals' ratings of job applicants, in that, assessments were more favourable for candidates seen first (Farr & York, 1975). Recent studies have examined order effects across a variety of

contexts finding a preference for the first stimulus as compared to the second (Moore, 1999; Bruine de Bruin & Keren, 2003; Kardes & Kalayanaram, 1992).

In a study examining preferences for ice cream (Option A and Option B) and books (Option A and Option B) in both contexts, individuals tended to rate the first option more favourably than the second. It seemed that participants were judging the first option based on a mental representation and standard, whereas the second was judged in comparison to the first (Moore, 1999). This preference for option A has also been found when comparing first and second options for dorm rooms and blind dates (Bruine de Bruin & Keren, 2003). The only situation where a preference for option A did not occur was when option B had more unique positive features than option A. It appeared that the features of option A were being used as a checklist by which to assess option B (Bruine de Bruin, & Keren, 2003). As such, Option B needed to exceed the standard set by Option A in order to be preferred.

A primacy effect has also been demonstrated in consumers' preferences for pioneer brands (the first brand to enter the consumer market) in comparison to the follower brands. Pioneer brands tend to be preferred by consumers as their features are novel and weigh more heavily in consumer judgement. When the follower brand possesses the same features as the pioneer, these features are now considered redundant, rather than particularly important in judging the follower product (Kardes & Kalayanaram, 1992).

Given the wide array of situations in which order effects influence choice, including social situations, it is possible that order effects may play a role in perceptions of potential leaders.

The Present Study

As trust plays a fundamental role in leadership perceptions and leader-subordinate relationships, it may be important to consider the role of gender stereotypes, and gender identification in contributing to leadership trust and preferences. In particular, gender biases regarding ability, benevolence, and integrity may influence whether a leader is trusted or chosen in scenarios depicting successful or failing companies. Specifically, ability may be more consistent with a male stereotypical leadership style (Eagly 2002; 2007), whereas benevolence may be more consistent with a more female stereotypical style (Eagly, 2007; Embry et al., 2007). Violating these gender stereotypes may be damaging for females, particularly in a male-dominated context (Heilman, 2004). In addition to stereotypes, the perceptions that individuals have of ability, benevolence, and integrity in leadership may be further influenced by the primacy effect and gender identification (ingroup favouritism). This in turn, may influence levels of trust and preferences in successful and failing scenarios.

In the present investigation, a scenario-based approach was adopted in which participants rated hypothetical leadership candidates (male or female) on ability, benevolence and integrity. Following their ratings they indicated their preference for each leader in the CEO position in a successful or failing company, as well as rating their trust in each leader. Separate analyses were conducted to determine the influence of these factors on male and female leadership for both the successful scenario and the failing scenario. Moreover, gender identification and the effects of the order of leader descriptions were taken into consideration in the present study.

It was hypothesized that:

1. The order of leader description would affect leader ratings. Specifically, an overall preference would be evident for the leader presented first in terms of ability, benevolence, integrity, trust (male and female). Furthermore, the leader seen first will be more likely to be chosen for the successful scenario. Order will not have an effect on choice in the failing scenario, as this will be perceived as a less favourable position.
2. Ability, benevolence, and integrity ratings would differ based on leader gender. In general, the male leader would have higher perceived ability ratings than the female leader, whereas the female leader would be viewed as having higher perceived benevolence ratings than the male leader. There would be no difference between the leaders on ratings of integrity.
3. Beyond the effects of leader order, participant gender would moderate the relationship between gender identification, and differential ability, benevolence, and integrity ratings. Specifically, individuals highly identified with their gender would be most likely to rate members of their own gender group as most trustworthy (higher ratings on all factors). However, low levels of gender identification would be related to leadership ratings based on gender stereotypes. Specifically, differential ability scores would increase (male rated higher than female leader) and differential benevolence scores would decrease (female rated higher than male), but no difference would be evident in terms of integrity ratings.
4. Beyond the effects of leader order, in both scenarios, participant gender would moderate the relationship between gender identification and a) trust (male leader and female leader) and b) choice (successful and failing scenarios). Specifically, individuals highly identified with their gender would demonstrate ingroup favouritism having greater

trust ratings in members of their own gender group, whereas low gender identification for both genders would be related to higher trust in the male leader as well as decreased trust in the female leader. Furthermore, in the successful scenario, individuals highly identified with their gender would be more likely to choose the leader of their own gender in the, whereas low levels of gender identification for male participants would choosing the male leader most often for the successful scenario. In the failing scenario, low gender identification would be related to male participants choosing the female leader more often. Low-identification would not predict choice among female participants.'

5. Beyond the effects of leader order differential ability, benevolence, and integrity scores would predict a) trust (male leader and female leader) and b) choice in both the successful and failing scenarios. In the successful scenario, higher differential ability and integrity ratings would be associated with higher levels of trust in the male leader in the successful scenario, however benevolence would not contribute to trust in the male leader. Furthermore, in this scenario, lower differential benevolence and integrity ratings would be related to higher levels of trust in the female leader, but benevolence would not contribute. In the failing scenario higher ability and integrity ratings would influence trust **in the male leader, but benevolence would not contribute. Lower differential scores on all factors would be related to higher levels of trust in the female leader in this scenario.** Finally as trust is expected to predict choice, the same relationship would occur between ability, benevolence, integrity, and choice.

Methods

Participants

The sample consisted of 291 community members with a mean age of 31.95 years ranging from 18-74. The sample was 59.5% female (n=173) and 40.5% male (n=118). Participants were from a broad range of ethnic backgrounds (see Table 1). Most were university or college educated, employed full-time, and reported their income bracket as being middle class (see Table 1).

Of those participants who were employed, the largest number identified themselves as having a non-management position (n=135, 46.4%), followed by first-level management (n=53, 18.2%), middle management (n=19, 6.5%), and upper management (n=11, 3.8%). The remaining participants did not fall into one of these categories and identified their position as other (n=45, 15.5%).

Procedure

Advertisements encouraging individuals to participate the on-line study through the Carleton Copewell website were posted on Kijiji, Facebook and Craigslist. Participants were required to give their informed consent before proceeding with the study (Appendix A). After obtaining informed consent, participants created a user ID and password that was used to identify their data. This study took approximately 25-30 minutes to complete. If participants wished to complete the study in smaller portions, their ID and password allowed them to return to the website at a later date and continue the study from where they previously left off. Following completion of the study, participants provided their address (which was stored separately from their data) in order to receive a \$5.00 Tim Horton's gift card for their participation.

Table 1.

Demographic information

Category	N	%
Ethnicity		
Asian/SouthAsian/Southeast Asian	92	31.7
Arab/West Asian	5	1.7
Black	3	1.0
Latin American	1	.3
Aboriginal	3	1.0
White/Euro-Caucasian	179	61.2
Other	7	2.4
Employment status		
Full-time	145	49.8
Part-time	52	17.9
Unemployed	92	31.6
Education level		
High school or below	52	17.9
College diploma	90	30.9
Undergraduate degree	111	38.1
Graduate degree	37	12.8
Income bracket		
> \$30, 000	30	10.34
30, 000-44, 999	36	12.41
45,000-74,999	94	32.41
75, 000-89, 999	43	14.83
> 90, 000	87	30.0

Measures

Participants completed the following measures on-line:

1. *Demographics*: this scale collected demographic information such as education, marital status, and employment history. (Appendix B).
2. *Ability, Benevolence, and Integrity Questionnaire*: this 17-item scale assessed how participants rate each leader on the qualities of ability (skills, qualifications), benevolence (selfless willingness to do good towards others), and integrity (perception of acceptable values) as it relates to a CEO position (Mayer, Davis, & Schoorman, 1999). Participants were asked to indicate how much they agreed or disagreed with statements about the leader on these qualities. Participants were asked to complete this scale twice (once for each candidate, after their description) (Cronbach's $\alpha = .88$) (Appendix D).
3. *Scenario Specific Questionnaire*: This eight-item questionnaire assessed leadership choice and trust in leadership. The participant chose who they thought would be best for the position and how much they would trust each leader for the position (employee trust was used for the present study). This questionnaire was completed twice (once after each scenario). This measure was created specifically for this study. (Appendix F).
4. *Gender Identity Scale*: This 12-item questionnaire assessed three factors that make up social identity; centrality, ingroup affect, and ingroup ties. Centrality is the frequency the group comes to mind and the importance to an individual's self-definition. Ingroup affect refers to the specific emotions that result from group membership. Ingroup ties refer to the extent to which group members feel part of

their particular social groups (Cameron, 2004) (Cronbach's $\alpha = .76$) (Appendix G). An extra question (#13) was added to this scale in order to ensure validity of data, but was not considered in analyses.

Other materials

1. *Informed Consent* (Appendix A)
2. *CEO Candidate Descriptions*: Participants were presented with a description of 2 candidates (one female and one male) with equal qualifications. The order of the candidate descriptions was counterbalanced so that half of the participants saw the male candidate first and half saw the female first. Participants were told that the candidates were being considered for a CEO position and general responsibilities of a CEO were described (Appendix C).
3. *Leadership Scenarios*: Participants were presented with two leadership scenarios describing companies requiring a new CEO. One of the scenarios described a CEO position for a failing company (Company Y) and the other described a CEO position for a successful company (Company X). The order of the scenarios was counterbalanced, with half of the participants seeing the successful scenario first and half seeing the failing scenario first (Appendix E).
4. *Debriefing*: At the end of the study, participants were fully informed of the purpose of the study as well as provided with contact information for community resources and relevant services (Appendix H).

Table 2.

Descriptive statistics of measures

Measure	Mean	SD	Number of items	α
ABI (total)			17	.88
male	3.34	.54	17	
female	3.36	.57	17	
Ability			6	.88
male	3.32	.68	6	
female	3.40	.66	6	
Benevolence			5	.86
male	3.32	.74	5	
female	3.40	.79	5	
Integrity			6	.69
male	3.34	.61	6	
female	3.32	.61	6	
Trust				
Male leader/Success	4.46	1.29	1	
Female leader/Success	4.42	1.25	1	
Male leader/Fail	4.32	1.28	1	
Female leader/Fail	4.41	1.22	1	
Gender identification	3.24	.69	12	.76

Results

Statistical Analysis Overview

All variables were standardized (converted to z scores) to maintain consistency across regression analyses. As such, each regression analysis used the standardized score of each predictor.

Prior to hypothesis testing, effects of the order of scenario presentation were analyzed to determine whether the counterbalancing of the order (successful first, failing second, and vice versa) influenced choice or trust in leadership. A chi-square analysis was performed to determine whether leadership choice was affected by the order of scenario. This was followed by one way analyses of variance (ANOVAs) examining the influence of scenario order on trust in male and female leadership in the failing and successful scenarios. Next, a series of one-way ANOVAs were performed to determine the influence of leader description order (male first, female second, and vice versa) on **relative ability, benevolence, and integrity ratings (male leader score – female leader score)**. In analyses using difference scores, a negative difference indicates that the female leader was rated higher than the male, where a positive difference indicates that the male leader was rated higher than the female. In addition, paired t-tests were performed to examine differences between male and female leaders in terms of ability, benevolence, and integrity, regardless of order.

To determine whether gender identification and participant gender predicted differential ability, benevolence, and integrity ratings, a series of hierarchical linear regression analyses were performed. Differential ability, benevolence, and integrity scores were used in this analysis in order to determine whether one gender was rated

higher relative to the other on these factors. Thereafter, analyses were conducted to assess trust and choice in response to the successful and failing scenario.

A one-way ANOVA was performed to determine whether group effects (leader order) influenced trust in the male leader and trust in the female leader. A series of hierarchical linear regression analyses (controlling for order) were performed to determine: 1) the influence of gender identification on trust in the male leader, 2) the influence of gender identification on trust in the female leader, 3) the influence of differential ability, benevolence, and integrity on predicting trust in the male leader, and 4) the influence of differential ability, benevolence and integrity on predicting trust in the female leader. Differential scores for ability, benevolence, and integrity were used in these analyses as it was of interest to determine the relative difference between male and female scores to predict trust in each leader.

Group effects of leader order were examined to determine whether the order of leader presentation influenced leadership choice (male leader or female leader). As this analysis yielded significant results, order was included as a predictor in the subsequent logistic regression models. Next a series of binary logistic regression analyses were conducted, examining 1) gender identification, participant gender predicting choice, 2) trust in the male leader predicting choice, 3) trust in the female leader influencing choice, 4) ability, benevolence, and integrity ratings of the male leader influencing choice, and 5) ability, benevolence, and integrity ratings of the female leader influencing choice.

Preliminary Analysis

Correlational analyses of the female leader ratings by both female and male participants indicated significant positive correlations between ability, benevolence, and integrity ratings. Additionally, ability, benevolence, and integrity ratings were correlated with trust in the female leader in both the failing and successful scenario among both male and female participants. In contrast, gender identification was not significantly correlated with either ability, benevolence, or integrity, or trust ratings of the female leader. These patterns were also present among ratings of the male leader. Additionally, among both male and female participants, ratings of the male leader were correlated with ratings of the female leader (see Table 3).

Table 3.

Correlation matrix of ABI and trust ratings of male and female leaders (female participants above diagonal, male participants below)

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Ability(m)		.42**	.39**	.63**	.32**	.35**	.36**	.47**	.32**	.28**
2. Benevolence(m)	.22*		.50**	.23**	.40**	.24**	.45**	.54**	.14	.16*
3. Integrity(m)	.26**	.42**		.23**	.35**	.27**	.37**	.42**	.20**	.42**
4. Ability(f)	.57**	.21*	.35**		.49**	.51**	.12	.25**	.53**	.45**
5. Benevolence(f)	.28**	.37**	.10	.30**		.63**	.12	.29**	.51**	.50
6. Integrity(f)	.23*	.21*	.13	.35**	.52**		.08	.17*	.46**	.41**
7. Trustfail(m)	.32**	.31**	.37**	.21*	.01	.06		.66**	.21**	.21**
8. Trustsuccess(m)	.43**	.33**	.37**	.20*	.03	-.02	.73**		.24**	.29**
9. Trustfail(f)	.39**	.06	.01	.45**	.53**	.42**	.21*	.19*		.69**
10. Trustsuccess(f)	.39**	.09	.03	.57**	.50**	.38**	.28**	.23*	.71**	

* $p < .05$

** $p < .01$

(m) denotes the rating of the male leader.

(f) denotes the rating of the female leader.

Scenario order

Chi square analyses were performed to determine whether the order of scenario (successful first, failing second or vice versa) affected leadership choice in each scenario. This analysis revealed that scenario order did not have an effect on leadership choice in the successful scenario, $\chi^2(1) = .99, ns$, or in the failing scenario, $\chi^2(1) = 1.75, ns$. Furthermore, one way ANOVAs indicated that the order of scenario presentation did not influence the trust ratings of male or female leaders in either scenario. As such, scenario order effects were not considered in further analyses.

Gender of leader order and ability, benevolence, and integrity

Group effects (based on the order of leader description) were examined to determine if the counterbalancing of leader descriptions had an effect on ability, benevolence, and integrity ratings of male and female leaders. One-way ANOVAs were performed to determine whether the order in which participants were presented with each leader description (male first -female second or female first -male second) influenced relative ability, benevolence, or integrity ratings of each leader.

The analyses revealed that leader order had an influence on relative differences between ratings of the male leader and female leader on ability, $F(1,289) = 3.78, p = .053, \eta^2 = .01$, benevolence, $F(1,289) = 10.98, p < .01, \eta^2 = .04$ and integrity, $F(1,289) = 15.09, p < .001, \eta^2 = .05$. Specifically, whether participants saw the male or the female leader first, they rated the female leader higher than the male leader on ability. However, the group presented with the female leader first rated the female higher on ability in comparison to the group presented with the male leader first (Figure 1a). Participants tended to rate the leader they saw first higher in benevolence than the leader they saw

second. Those who saw the male leader first, rated the male leader higher in benevolence than the female leader and those who saw the female leader first rated the female higher in benevolence than the male leader (Figure 1b). The same pattern occurred for integrity ratings. Individuals who saw the male leader first rated the male leader higher in integrity than the female leader and those who saw the female leader first rated the female higher in integrity than the male leader (Figure 1c)¹.

Three 2 (leader order) x 2 (participant gender) analyses of variance were performed to determine whether the influence of leader order on differential ability, benevolence, and integrity ratings varied by participant gender. In fact, there was no significant interaction between participant gender and leader order, indicating that the order effects did not differ between male and female participants.

¹ One-way ANOVAs were performed for order effects and absolute ABI scores for the male leader and the female leader. These analyses revealed that there were no significant effects on the female leader ratings or the rating of male ability. Participants presented with the male leader first, tended to rate the male leader higher in benevolence and integrity, than those who saw the female leader first.

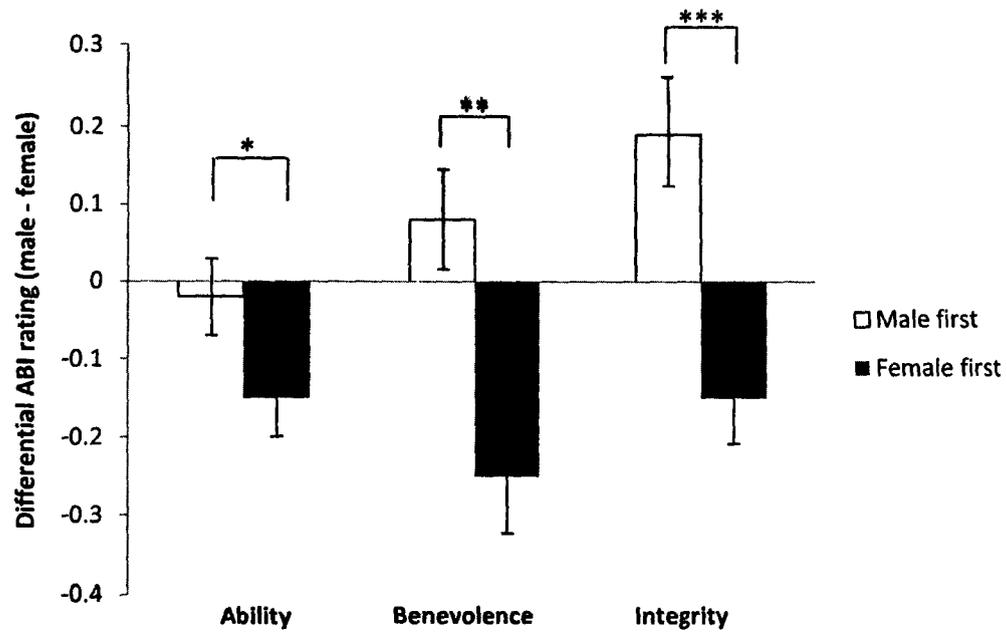


Figure 1. Mean (\pm SE) relative differences (male-female score) in ability, benevolence, and integrity for participants presented with the male leader first and the female leader first.

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

Gender and ability, benevolence, and integrity

It was hypothesized that ability, benevolence, and integrity ratings would differ for male and female leaders. Paired t-tests were performed to examine differences between ability, benevolence, and integrity ratings for male and female leaders. The analysis revealed that there was a significant difference between the ability ratings of the male and female leader, $t(291) = 2.34, p < .05$, wherein the female leader ($M = 3.40, SD = .66$) was rated higher in ability than the male leader ($M = 3.32, SD = .68$). There were no significant differences between male and female leaders in terms of benevolence and integrity.

Identification with one's social group may influence how trustworthy (ability, benevolence, integrity ratings) an individual perceives a member of their own group to be in comparison to the outgroup. To examine the variance in ability, benevolence, and integrity ratings of male and female leaders, while controlling for order of leader description, three hierarchical linear regression analyses were performed to examine the relationship between identification and gender with differential ability, benevolence, and integrity. Difference scores were calculated for ability, benevolence, and integrity, in order to obtain a score of the relative difference between the male and female leader rating (male score – female score). In order to control for the influence of leader order, this variable was dummy coded (0 = male first, 1 = female first) and entered on the first step, participant gender and gender identification were entered on the second step, and the interaction between gender identification and participant gender were entered on the third step. This process was performed separately for three outcome variables; differential ability, benevolence, and integrity scores.

Over and above the effects of leader order, gender identification and participant gender did not influence differential ability, $R^2_{cha} = .00$, $F_{cha}(2, 287) = .06$, *ns*, benevolence, $R^2_{cha} = .01$, $F_{cha}(2, 287) = 1.21$, *ns*, or integrity ratings, $R^2_{cha} = .01$, $F_{cha}(2, 287) = 1.36$, *ns*.

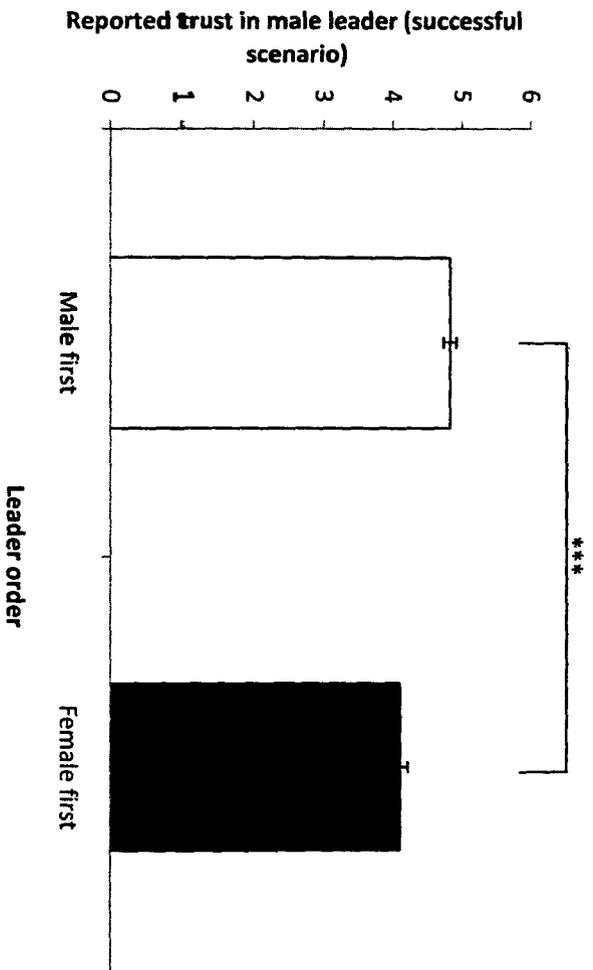
Part A: Successful scenario

Trust

Primacy effects and trust

One way ANOVAs were performed to determine the effects of leader order on trust in the male leader and trust in the female leader in the successful scenario. Leader order influenced trust in the male leader, $F(1, 288) = 24.76$, $p < .001$, $\eta^2 = .08$. Specifically, the group presented with the male leader first rated the male leader higher in trust in comparison to the group that saw the female leader first (Figure 2a). Similarly, leader order also influenced trust in the female leader in the successful scenario, $F(1, 288) = 5.38$, $p < .05$, $\eta^2 = .02$. In particular, the group presented with the female leader first rated the female leader higher in trust relative to the group presented with the male leader first (Figure 2b).

a)



b)

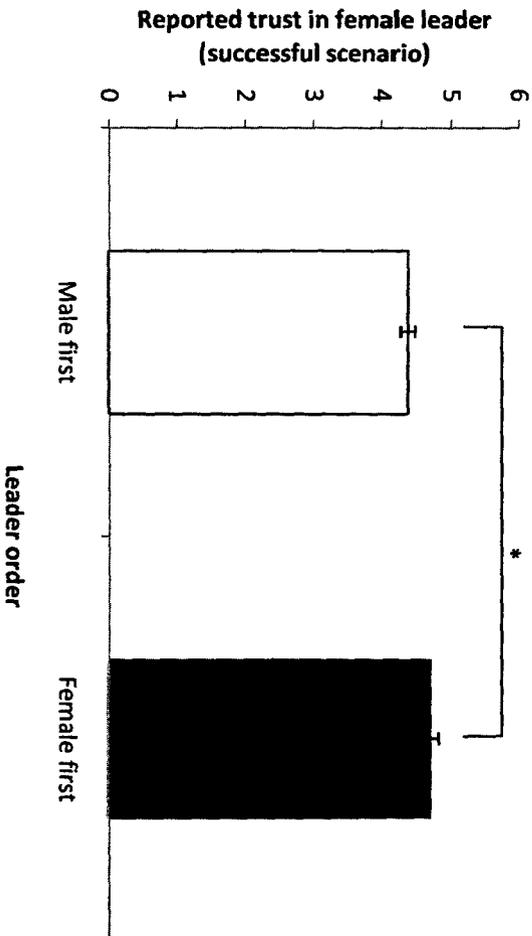


Figure 2. Mean (\pm SE) reported trust in the a) male leader and b) female leader in the successful scenario based on order of leader presentation.

* $p < .05$, *** $p < .001$

Participant gender, gender identification, and trust.

It was hypothesized that the relationship between gender identification and trust in the male and female leader would be moderated by participant gender. Two hierarchical linear regression analyses were performed to determine the influence of gender identification and participant gender on trust in the male leader and trust in the female leader. As leader order had an influence on trust, its influence was controlled for in this analysis. In each analysis, leader order was dummy coded (0 = male first, 1 = female first) and entered on the first step, gender identification and participant gender were entered on the second step, and the interaction between gender identification and participant gender was added on the third step. The analyses revealed that above and beyond the influence of leader order, participant gender and gender identification did not predict trust in the male leader, $R^2_{cha} = .00$, $F_{cha}(2, 286) = .11$, *ns* or trust in the female leader $R^2_{cha} = .01$, $F_{cha}(2, 286) = 1.18$, *ns* in the successful leadership scenario.

Ability, Benevolence, Integrity, and Trust

Whether a potential leader is perceived to be trustworthy (ability, benevolence, integrity) may affect how much that leader is trusted in a leadership scenario. It was hypothesized that each of these factors would contribute to trust in male and female leadership in the successful scenario. Two hierarchical linear regression analyses were performed to examine this hypothesis. The first regression examined the influence of differential ability, benevolence, and integrity on trust in the male leader, and the second examined the influence of these factors on trust in the female leader. Both controlled for the effects of leader order. For each regression analysis, leader order was dummy coded (0 = male leader seen first, 1 = female leader seen first) and entered as step 1, differential

ability, benevolence, and integrity scores (male score – female score) were entered as step 2, the two way interactions were entered as step 3, and the three-way interaction between ability, benevolence, and integrity was added as step 4².

The first regression analysis examining the variance in trust in the male leader indicated that over and above the influence of leader order, differential ability, benevolence, and integrity ratings, contributed to the variance in trust in the male leader, $R^2_{cha} = .08$, $F_{cha}(3, 285) = 9.49$, $p < .001$. Specifically, trust in the male leader increased as the differential ability rating increased (male rated higher than the female leader), $B = .25$, $t = 3.48$, $p < .01$. Furthermore, the relationship between differential integrity score and trust in the male leader approached significance, $B = .15$, $t = 1.84$, $p = .07$.

The second analysis examining trust in the female leader indicated that differential ability, benevolence, and integrity ratings were significantly related to trust in the female leader, $R^2_{cha} = .12$, $F_{cha}(3, 285) = 13.17$, $p < .001$. Specifically, as differential benevolence score decreased (female rated higher than the male leader), trust in the female leader increased, $B = -.38$, $t = 4.90$, $p < .001$.

Choice

Trust and choice

Whether a leader is chosen for a particular position may be influenced by how much they are trusted. It was hypothesized that in general the higher a leader was rated in terms of trust, the greater the likelihood of that particular leader being chosen. Two binary logistic regression analyses were performed to determine whether trust ratings of

² Separate multiple linear regression analyses were performed to determine whether order effects interacted with participant gender to predict trust in male and female leadership. These indicated that there was no significant interaction between order and participant gender in either scenario for either leader gender.

the male leader and trust ratings of the female leader contributed to choice in the successful scenario. The first regression analysis revealed that the trust rating of the male leader was a significant predictor of leadership choice, $\chi^2(2) = 54.48, p < .001$, *Nagelkerke* $R^2 = .23$. Specifically, a one-unit increase in the trust rating of the male leader was associated with a 52.1% decrease in the likelihood of choosing the female leader for the successful scenario, *Wald* (1) = 23.03, $p < .001$ *Exp(B)* = .48.

The second logistic regression analysis similarly indicated that trust ratings of the female leader predicted leadership choice, $\chi^2(2) = 50.68, p < .001$, *Nagelkerke* $R^2 = .21$. A one unit increase in the trust rating of the female leader was related to an 88% increase in the likelihood of choosing a female leader relative the male leader, *Wald* (1) = 20.33, $p < .001$ *Exp(B)* = 1.88. Order effects also accounted for a significant amount of variance in leadership choice (see chi square analysis below).

Order effects (leader order) and choice

Chi square analyses were performed to determine whether the order of leader description affected leadership choice in the successful scenario. The analysis revealed that the group presented with the male leader first was more likely to choose the male leader relative to the female, and those presented with the female leader first were more likely to choose the female relative to the male, $\chi^2(1) = 27.32, p < .001$ (Figure 3). As such, the influence of leader order will be included as a predictor in subsequent analyses examining choice, in order to control for its effects.

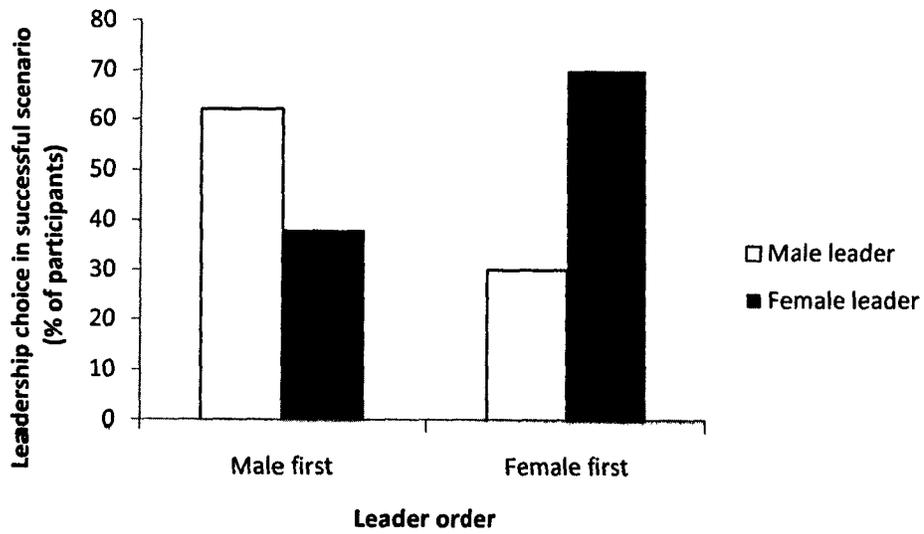


Figure 3. Leadership choice (male or female) in the successful scenario based on order of leader presentation.

Gender, gender identification and leadership choice

It was hypothesized that individuals who were highly identified with their gender group would be more likely to choose members of their own gender for the successful scenario. A binary logistic regression analysis was performed to determine the relationship between gender, gender identification and leadership choice, while including leader order as a control variable. The analysis revealed that the overall model was significant, $\chi^2(4) = 28.74, p < .001$. However, order was the only predictor accounting for this significance. Gender and gender identification did not predict leadership choice in the successful scenario.

Ability, Benevolence, Integrity and Choice

It was hypothesized that differential ability, benevolence, and integrity ratings (male score – female score) would predict leadership choice in the successful scenario. A binary logistic regression analysis was performed to examine influence of differential ability, benevolence, and integrity ratings (male – female score) as well as the order of leader description, on choosing either the male or female leader for the successful scenario³. The analysis indicated that these variables were significant predictors of leadership choice in the successful scenario, $\chi^2(4) = 78.06, p < .001, Nagelkerke R^2 = 0.32$. Specifically, in addition to order effects, a one-unit increase in the differential **ability score (standardized) was related** to a 57% decrease in the likelihood of choosing a **female leader relative to the male leader** for this scenario, $Wald(1) = 24.10, p < .001$ $Exp(B) = .43$. Similarly, a one-unit increase in the differential benevolence score was

³ Separate binary logistic regression analyses examining the influence of participant gender and leader order, indicated that these variables did not interact to predict choice in either the successful or failing scenario.

associated with a 33% decrease in the likelihood of choosing a female leader for the successful scenario, $Wald(1) = 5.76, p < .05, Exp(B) = .68$.

As differences scores could occur in either direction (negative would indicate female rated higher than male), a decrease in differential ability or differential benevolence score would be related to an increased likelihood in choosing the female leader relative to the male. In this regard, it appeared that the leader rated higher on ability or benevolence was more likely to be chosen relative to the other leader. Order also influenced choice in this scenario. Differential integrity ratings did not influence leadership choice in this scenario.

Part B: Failing scenario

Trust

Primacy effects and trust

One way ANOVAs were performed to determine the effects of leader order on trust in the male and female leader in the failing scenario. In fact, order of leader presentation influenced trust in the male leader, $F(1, 288) = 21.06, p < .001, \eta^2 = .07$. The group presented with the male leader first reported higher levels of trust in the male leader than the group that saw the female leader first (Figure 4a). Similarly, leader order influenced trust ratings of the female leader, $F(1, 287) = 14.60, p < .001, \eta^2 = .05$. In particular the group that saw the female leader first reported higher levels of trust in the female leader than the group presented with the male leader first (Figure 4b). As such, order effects will be included as a control variable in subsequent analyses examining trust.

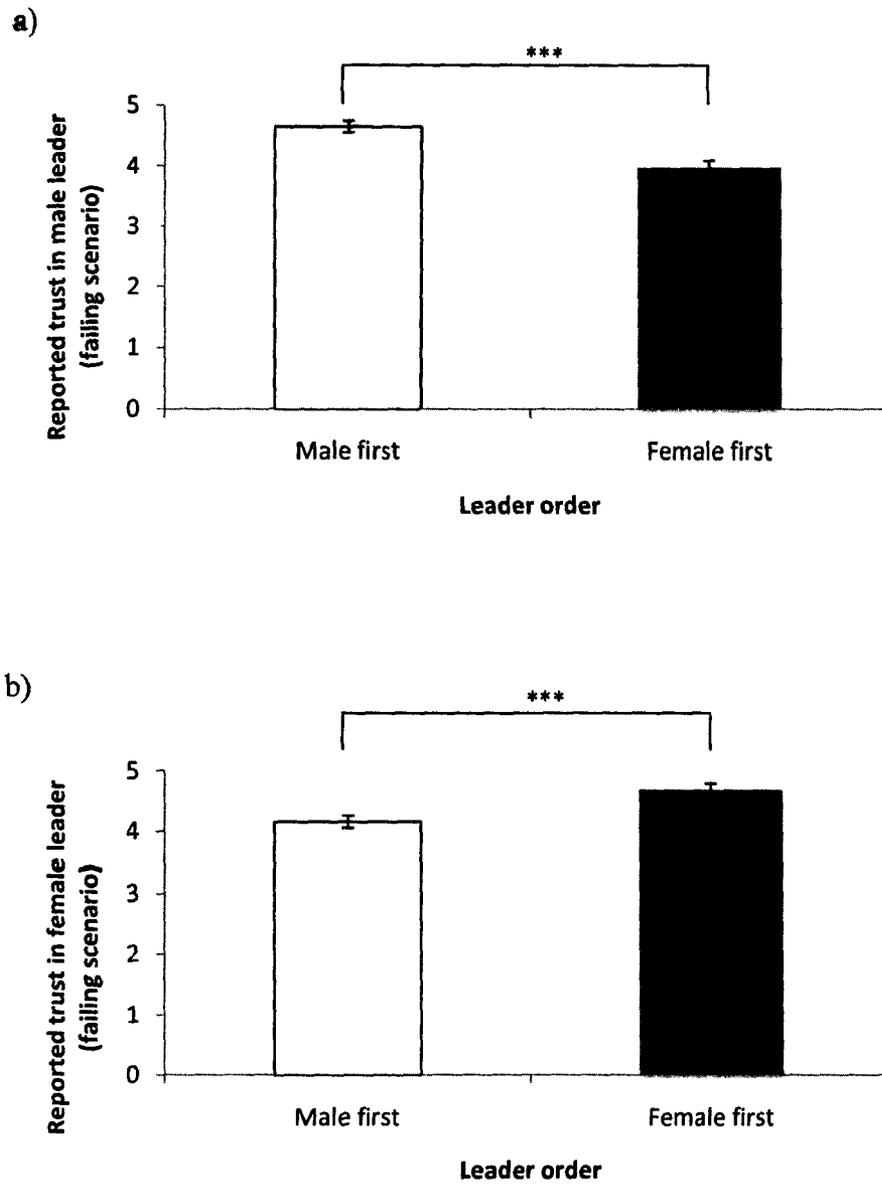


Figure 4. Mean (\pm SE) reported trust in the a) male leader and b) female leader in the failing scenario based on order of leader presentation.

*** $p < .001$

Gender identification, gender, and trust

As in the successful scenario, it was hypothesized the relationship between gender identification and trust in male and female leadership in the failing scenario would be moderated by participant gender. Two hierarchical linear regression analyses were performed to determine the influence of gender identification and participant gender on trust in the male leader and trust in the female leader in the failing scenario (beyond the influence of leader order). In each analysis, leader order was dummy coded (0= male first, 1 = female first) and entered on the first step, gender identification and participant gender were entered on the second step, and the interaction between gender identification and participant gender was added on the third step.

The first regression analysis indicated that beyond the influence of leader order, the interaction between participant gender and gender identification predicted trust in the male leader, $R^2_{cha} = .02$, $F_{cha}(2, 286) = 6.61$, *ns*. Specifically, a significant interaction between gender identification and participant gender indicated that as gender identification increased for female participants, trust in the male leader also increased, $B = .39$, $t = 2.57$, $p < .05$. This moderating effect of gender was further examined by performing a simple slopes analysis to assess the relationship between gender identification and trust in the male leader for male and female participants. At high levels of gender identification, female participants had higher levels of trust in the male leader than did male participants. In contrast, at low levels of gender identification, male participants had higher levels of trust in the male leader, than did female participants.

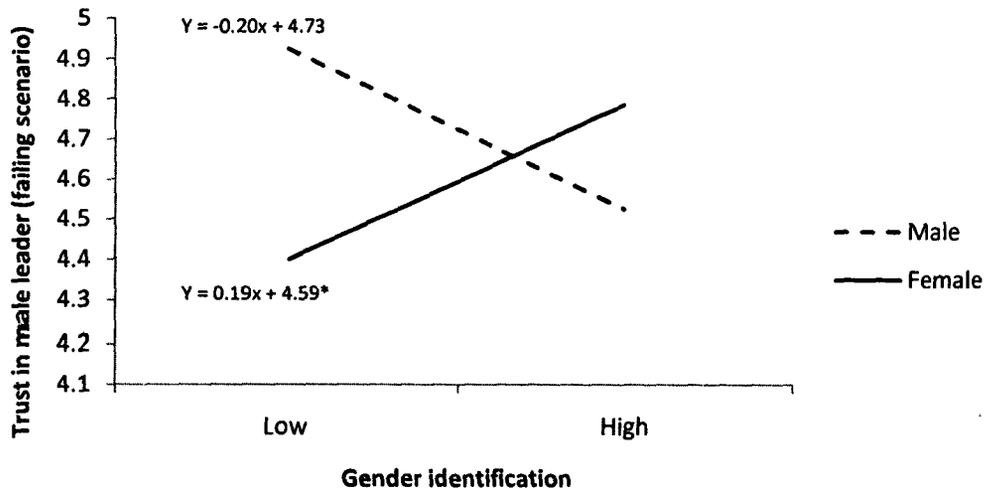
For female participants, an increase in gender identification was significantly related to an increase in trust in the male leader. For male participants, the decrease in trust from low gender identification to high gender identification was not significant (Figure 5a).

The second regression analysis indicated that beyond the influence of leader order, gender and gender identification did not predict trust in the female leader, $R^2_{cha} = .01$, $F_{cha}(2, 285) = .88$, *ns* in the failing leadership scenario (Figure 5b).

Ability, benevolence, integrity and trust

It was hypothesized that in a failing leadership scenario, differential ability, benevolence, and integrity ratings (male score – female score) would contribute to trust in male and female leadership. Two hierarchical linear regression analyses were performed to examine trust in the male leader and trust in the female leader in the failing leadership scenario. In each analysis, leader order was dummy coded (0 = male first, 1 = female first) and entered on the first step in order to control for its influence in the analysis, ability, benevolence, and integrity were entered on the second step, two-way interactions were entered on step 3, and the 3-way interaction was added on step 4.

a)



b)

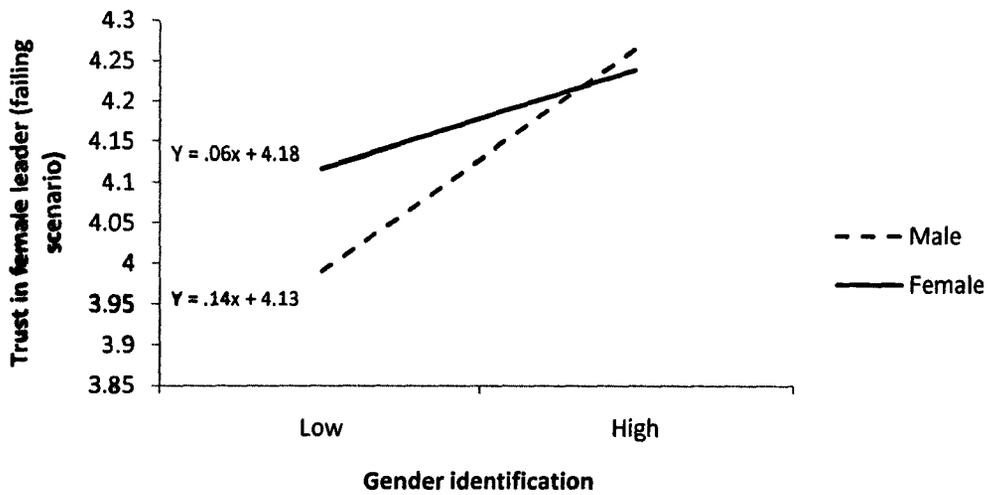


Figure 5. The relationship between gender identification ($\pm 1SD$) and trust in a) male leadership and b) female leadership, as moderated by participant gender.

* $p < .05$

The first regression analysis indicated that over and above the effects of leader order, differential ability, benevolence, and integrity ratings significantly accounted for variance in trust in the male leader, $R^2_{cha} = .08$, $F_{cha}(3, 285) = 8.80$, $p < .001$.

Specifically, as the differential ability rating increased (male rated higher than the female leader), trust in the male leader also increased, $B = .18$, $t = 2.40$, $p < .05$. Furthermore, as the differential benevolence rating increased, trust in the male leader also increased $B = .21$, $t = 2.62$, $p < .01$.

The second analysis revealed that differential ability, benevolence, and integrity ratings were related to trust in the female leader, $R^2_{cha} = .13$, $F_{cha}(3, 284) = 15.42$, $p < .001$. As differential benevolence score decreased (female leader rated higher than the male), trust in the female leader increased, $B = -.39$, $t = 5.28$, $p < .001$.

Choice

Trust and choice

As in the successful scenario, trust in leadership was also expected to influence choice in the failing scenario. It was hypothesized that in general the higher a leader was rated in terms of trust, the higher the likelihood of that particular leader being chosen in the failing scenario. Two binary logistic regression analyses were performed to determine whether trust ratings of the male leader and trust ratings of the female leader contributed to choice in this scenario. Order of leader presentation was included as a predictor in each analysis. The first regression analysis revealed that both order effects and the trust rating of the male leader were significant predictors of leadership choice, $\chi^2(2) = 46.48$, $p < .001$, *Nagelkerke* $R^2 = .20$. Specifically, a one-unit increase in the trust rating of the male leader, was associated with a 42.1% decrease in the likelihood of choosing the female

leader relative to the male leader for the successful scenario, $Wald(1) = 15.17, p < .001$
 $Exp(B) = .58$.

The second logistic regression analysis indicated that trust ratings of the female leader along with leader order also predicted leadership choice in the failing scenario, $\chi^2(2) = 80.17, p < .001, Nagelkerke R^2 = .32$. In addition to the influence of leader order, as trust ratings of the female leader increased by one unit participants became 2.83 times more likely to choose a female leader relative the male leader, $Wald(1) = 39.15, p < .001$
 $Exp(B) = 2.83$.

Order effects (leader order) and choice

Chi square analyses were performed to determine whether the order of leader description affected leadership choice in the failing scenario. Similar to the successful scenario, the analysis revealed that the group presented with the male leader first was more likely to choose the male leader relative to the female, and those presented with the female leader first were more likely to choose the female relative to the male, $\chi^2(1) = 29.41, p < .001$ (Figure 6). As such, order will be included as a predictor variable in subsequent analyses in order to control for its influence.

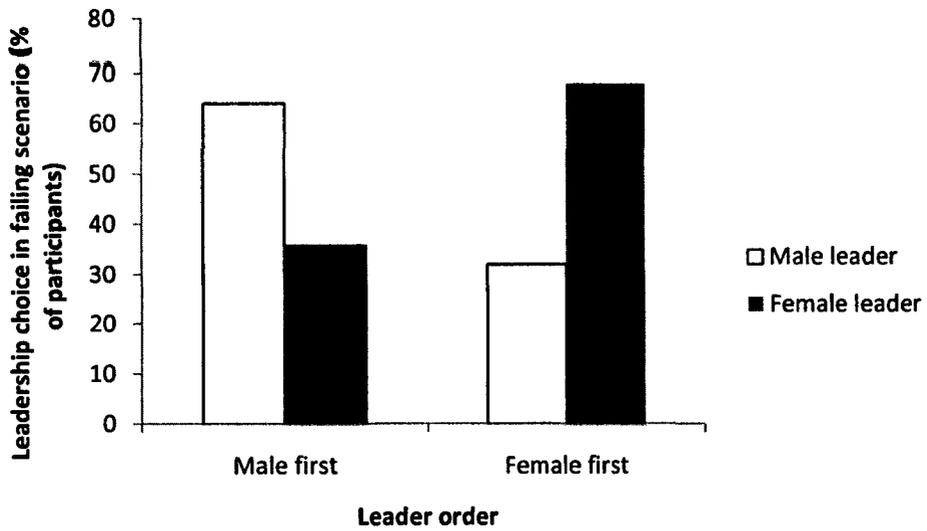


Figure 6. Leadership choice (male or female) in the failing scenario based on order of leader presentation.

Gender identification and choice

It was hypothesized that participant gender and gender identification would influence leadership choice in the failing scenario. A binary logistic regression analysis was performed to determine the influence of participant gender, gender identification on leadership choice in the failing scenario. Leader order was included as a predictor to control for its effects in the analysis. A binary logistic regression analysis revealed that overall, these predictors significantly predicted leadership choice, $\chi^2(4) = 35.27, p < .001$, Nagelkerke $R^2 = .15$. As was previously established, leader order contributed to leadership choice. In addition to order, the relationship between participant gender and leadership choice approached significance. Specifically, in comparison to female participants, males were 38.6% less likely to choose the female leader relative to the male leader, $Wald(1) = 3.53, p = .06, Exp(B) = .61$. Conversely, in comparison to male participants, females were 62.7% more likely to choose the female leader relative to the male leader, $Wald(1) = 3.53, p = .06, Exp(B) = 1.63$.

Ability, Benevolence, Integrity and Choice

It was hypothesized that differential ability, benevolence, and integrity ratings of the male and female leader would influence leadership choice in the failing scenario. To examine this hypothesis, a binary logistic regression analysis was performed using differential ability, benevolence, and integrity ratings (male score – female score) to predict leadership choice in the failing scenario. Leader order was added as a predictor to control for its influence in this model. The combination of these predictors accounted for a significant amount of the variance in leadership choice, $\chi^2(4) = 66.56, p < .001$, Nagelkerke $R^2 = .27$. In addition to leader order, a one-unit increase in differential ability

was related to a 51% decrease in the likelihood of choosing a female leader for the failing scenario, $Wald(1) = 19.88, p < .001$ $Exp(B) = .49$ Additionally, a one-unit increase in differential benevolence was related to a 29.2% decrease in the likelihood of choosing the female leader, relative to the male leader in the failing scenario, $Wald(1) = 4.78, p < .05$ $Exp(B) = .71$.

As differences scores could occur in either direction (negative would indicate female leader rated higher than the male leader), a decrease in differential ability or differential benevolence score would be related to an increased likelihood in choosing the female leader relative to the male. Similar to the successful scenario, the leader rated higher on ability or benevolence was more likely to be chosen relative to the other leader. Differential integrity ratings did not influence leadership choice in this scenario.

Summary

Taken together, the current findings indicated a primacy effect in leadership perceptions, where the leader description presented first was consistently preferred relative to the leader presented second on all measures. In general, the magnitude of the order effects was small, but as indicated earlier, the variance in this regard was small and hence the small mean differences observed were statistically significant.

The present study indicated that particular leadership qualities may be valued in successful and failing situations for male and female leaders. Furthermore, in some cases there was a discrepancy between the qualities influencing trust and those influencing choice for male and female leaders. As such, leaders may be chosen for positions, independent of whether they are also trusted.

The relationship between ability, benevolence, and integrity with regard to trust and choice was consistent across scenarios for female leadership. As such, perceptions of trustworthiness may not influence glass cliff assignments. However, it appears that differing perceptions of male and female leadership may further contribute to gender biases in the leadership domain.

Discussion

In today's workforce, men and women may encounter situations where they are selected for leadership positions on a competitive basis. In some instances competition for a particular position may involve individuals of the same gender, whereas in others the competition involves both genders. As such, gender biases may have implications for success in achieving and maintaining leadership positions.

Stereotypes that place women at a relative disadvantage to males in the leadership domain have been well-established (Eagly 2002; 2007). It has been suggested that these stereotypes contribute to the relative difficulty females experience in obtaining successful positions (Eagly, 2007), as well as the assignment of women to failing leadership positions (Ryan & Haslam, 2005; 2007). Although it was found in the present study that leaders were not rated based gender stereotypes with respect to ability, benevolence, and integrity, it is still possible that stereotypical perceptions of these factors contributed to trust in male and female leadership. Furthermore, trust in a potential leader was pertinent in determining the choice that participants made. The present study also demonstrated that that leadership choice was influenced by the order in which candidates for a hypothetical position were presented. However, several findings in this study were unexpected, pointing to the complex nature of leadership perceptions and assessments.

As such, although numerous factors contribute to how a leader is judged, it may be that gender stereotypes play a role in the perceptions of some aspects of leadership.

Primacy effect (Order)

To a considerable extent, as previously reported, a primacy effect was evident in that individuals had a more favourable impression of the leader description they saw first relative to the second leader description (Moore, 1999; Kardes & Kalayanaram, 1992). The first leader (Leader A) was rated higher on ability, benevolence, and integrity, was trusted more, and was chosen more often in both the successful and failing scenarios relative to the second leader (Leader B). It has been suggested that option B in a sequence must demonstrate superiority to option A (as opposed to simply being comparable) in order to be preferred (Bruine de Bruin & Keren, 2003). In this regard, because both leaders in the present study were equal in terms of their descriptions, Leader B did not have any unique positive features that were perceived to surpass the rating of Leader A and therefore was judged less favourably. Although such an outcome in counterbalanced experimental designs is often considered to be a confounding variable, the present findings are, in fact, in line with earlier reports and likely reflect the reality of the competitive work situation.

Contrary to prediction, a primacy effect existed in the failing scenario. It was expected, based on the views offered by Ryan and Haslam (2008), that the failing scenario would be viewed as an unfavourable position, and thus the preferred leader might not be chosen for this position. It may be that the failing scenario was, in fact, not perceived as an unfavourable position, or that participants were not willing to assign the leader they considered “second best” to any situation whether failing or successful.

Impact of gender on ability, benevolence, and integrity

Contrary to previous research suggesting that males are typically considered to have higher levels of leadership ability than females (Eagly, 2002;2007), in the present study the female leader was perceived to have a higher level of overall leadership ability than the male leader. These findings may have been influenced by participants' expectancies regarding leadership ability for the male and female leader. Individuals may have expectancies (based on stereotypes) regarding the qualities they expect male and female leaders to possess. Male leaders are often considered to be highly competent, whereas female leaders are considered to be more caring and communicative (Eagly, 2007). As such, these stereotypes may influence expectancies of each leader, and in turn, perceptions of leadership qualities. Specifically, previous reports have indicated that expectancies may be particularly important in a situation where the description of the target (in this case, the leader description) contains mixed information (both positive and negative). In this regard, information that is inconsistent with expectancies stands out, and judgments tend to be made based on this contradictory (rather than confirmatory) information (Stapel, 1998). In the present study, the leader descriptions contained mixed information for both the male and female leader (some strengths, some weaknesses). As such, assessments of female leadership ability may have been based primarily on strengths in ability, as this information would be deemed inconsistent with expectations of female leadership. In contrast, individuals may have had higher expectations for the male leader and may have rated his ability focused primarily on weaknesses in leadership abilities, as this would be inconsistent with expectations for a male leader. In this regard, gender biased expectancies may have contributed to the female being judged more

favourably and the male being judged less favourably in terms of ability. The view suggested here is admittedly speculative, but given the complexities that are evident in determining choices regarding leadership, this perspective warrants consideration.

Women are generally considered to be the more benevolent gender (Niu & Rosenthal, 2009; Buchan & Solnick, 2008), perhaps reflecting part of the female stereotype. Yet, in the **present investigation**, benevolence differences were not reported with respect to the male and female leaders, suggesting that biases regarding benevolence are not as prevalent as thought. It may be that participants rated both the male and female leader objectively in terms of benevolence without the interference of biases. Alternatively, as order effects played a significant role in terms of leadership, it may be that gender biases related to benevolence actually do exist in the **present study**, but were **masked by the more potent primacy effect**.

It had been hypothesized that the gender of the participant would influence their responses to the potential leadership candidates. Identification with a **particular social group** may influence individuals to consider their own group to be more trustworthy than the “outgroup” (Hogg, 2001; Haslam & Platow, 2001). Contrary to this hypothesis, however, this perspective was not supported in the present study. Specifically, identification with one’s gender group did not influence the rating of either the male or female in terms of ability, benevolence, or integrity. As no gender biases were demonstrated, it may be that social identification might influence leadership perceptions in general, but not specifically with respect to these characteristics. Once again, however, order effects may be interfering with or obfuscating the effects of gender identification on perceived ratings of these factors.

Trust in leadership

Individual attitudes related to ability, benevolence, and integrity along with group membership may impact perceptions of trust and leadership choice. Thus, the choice an individual makes might be a reflection of factors that impact appraisals of the level of trustworthiness of a particular leader. In this regard, it has been reported that individuals are more likely to trust leaders who are members of their social ingroup, as well as decreased trust in the outgroup (Haslam & Platow, 2001). As such, it was expected that highly identifying with one's gender would influence individuals to trust the leader of the same gender. In fact, gender moderated the relationship between gender identification and trust in the male leader in the failing scenario, as trust in the male leader, paradoxically, increased among highly identified female participants.

These findings indicated that highly gender identified females may be more willing to trust the social "outgroup" in the less successful scenario. In this regard, rather than placing the burden of an unsuccessful leadership position on members of their own gender group, they appeared to be more willing to trust the male. The factors related to this outcome are uncertain and can only be speculated upon at this point. It was reported previously that highly gender identified women have a better knowledge of the glass cliff and its effects on a female's career (Ryan, Haslam, & Postmes, 2007). Perhaps, trust in the male increases with gender identification because they understand that trusting their own gender in this situation could lead to negative effects on her career, but may not have the same damaging effect on the reputation of males. Once again, data concerning this possibility are not currently available, and hence this perspective is highly provisional. Alternatively, of course, it might simply be the case that when a situation is a precarious

one, 'reflexive' responses (perhaps based on socialization processes) might be such that individuals, including highly gender identified women, simply are more trusting of male leaders.

Consistent with previous reports, ability, benevolence, and integrity influenced trust in leadership (Mayer, Davis, & Schoorman, 1995) in both the failing and successful scenario. Although direct comparisons cannot be made between the influence of these factors on male and female leadership, it was of interest to determine the relationship between relative differences of these factors on trust in each leader separately.

As predicted rating the male leader higher in ability and integrity than the female influenced trust in him in the successful scenario. Relative benevolence, however, did not influence trust in male leadership, perhaps as this is a quality that may be more consistent with the female gender stereotype (Niu & Rosenthal, 2009; Buchan & Solnick, 2008). Interestingly, in the failing scenario, rating a male higher in benevolence than the female leader was associated with an increase in trust in the male leader. This indicates that in a failing scenario, benevolence may be valued even among males. As well, these findings may reflect that violating gender stereotypes might not always have negative repercussions for male leaders (Heilman, 2004).

As described earlier, based on the work of Ryan and Haslam (2008), it was expected that the successful scenario would be perceived as more suitable to a male leader and the failing scenario as more suitable to the female leader. As such, consistent with expectations, relative ability did not contribute to trust in the female leader in the successful scenario. This is consistent with reports indicating that women tend to be perceived negatively for demonstrating male stereotypical traits, particularly in a male

stereotypical context (Heilman, 2004). If the female is considered to have greater ability than a male (particularly in a male-dominated realm), she may be viewed as hostile (Heilman, 2004) and this could contribute to a lower levels of trust in her in the successful scenario. Consistent with the elevated benevolence often attributed to women relative to men, rating the female higher than the male on benevolence was associated with higher levels of trust in the female leader in the successful scenario. Similarly, in the failing scenario, only benevolence contributed to trust in the female leader. As such, it appeared that even in a situation typically perceived as more suited to females, only characteristics consistent with gender stereotypes contributed to trust.

Unexpectedly, integrity ratings did not influence trust of either leader in the failing scenario. Although the value of integrity has been well-established as a critical factor in achieving trust in leadership (Mayer, Davis, & Schoorman, 1995; Gill et al., 2005), in the present study integrity contributed only to trust in the male leader in the successful scenario. In this regard, it may be that integrity was not perceived to be an important factor in turning around a failing company. Previous reports had indicated that there may be a discord between perceptions of competencies and morality in business success, and indeed, it was reported that individuals tend to associate high levels of success with low levels of morality (Wojciszke & Dowhyluk, 2006). In this regard, individuals may not have perceived a leader with a high level of integrity as having the competence to bring a company out of a failing financial state.

Leadership choice

In general, trust was found to predict leader choice, although as already indicated, the ultimate choice that individuals make in selecting a leader may reflect the complex interactions between several variables that impact trust. It has been suggested that identification with one's social group may contribute to ingroup favouritism (Haslam & Platow, 2001), particularly when choosing a particular leadership candidate for a favourable leadership position (Ryan & Haslam, 2007). In the present study, participant gender influenced choice in the failing scenario, with individuals choosing their own gender most often. It appears that in this case, ingroup favouritism was not influencing the glass cliff, as selecting one's own gender group for the failing scenario would not necessarily be advantageous for members of their own gender group.

As hypothesized, rating a leader higher on the dimension of trust influenced the likelihood of that leader being chosen. This was consistent across scenarios, indicating that individuals prefer the leader they trust most even in a failing, less prestigious position. In both scenarios, individuals were more likely to choose a leader they rated higher in trust. However, this did not imply that all components of trustworthiness (ability, benevolence, and integrity) were equally responsible for the leadership preference in each scenario.

Although each of the components of trustworthiness may contribute to leadership perceptions (Gill, 2005), it appeared in the present study that only ability and benevolence scores contributed significantly to leadership preferences. Specifically, being rated relatively higher in ability or benevolence influenced the likelihood of the male leader being chosen in both the successful and failing scenarios. This influence of

benevolence was contrary to expectations, as benevolence is typically considered a more female stereotypical quality.

Rating the female leader higher than the male leader in terms of both ability and benevolence was related to a greater likelihood of her being chosen in both the successful and failing scenarios. As such, unlike the influence of these factors on trust, demonstrating characteristics both consistent (benevolence) and inconsistent (ability) with gender stereotypes contributed to the likelihood of the female leader being chosen. It may be that although stereotypes have an influence on trust in female leadership, they may not always apply to leadership choice.

Interestingly, in contrast to its influence on trust in the male leader, integrity was not related to choice in either scenario. These data provisionally suggest that leaders are not chosen based on perceptions of their moral policies or ethical behaviour.

Perceived leadership ability of males was consistently found to be associated with both trust in him as a leader and the likelihood of choosing a male leader. Furthermore, although benevolence did not influence trust in the male leader in the successful scenario, it did influence the male's likelihood of being chosen in the failing scenario. As such, a benevolent male may be chosen in this scenario, but this could occur regardless of whether or not he was trusted.

Interestingly, although relative ability did not influence trust in the female leader, it did influence whether or not she was chosen. In this regard, it may be that the decision to trust a female leader is based on criteria that differ from those that determine the decision to choose her for a particular scenario. Taken together, these results are in line

with the view that gender stereotypes involved in ability, benevolence, and integrity may have a stronger relationship to leadership trust than leadership choice.

Limitations and Considerations

Although the present study may have implications as to which qualities are valued in male and female leaders in various scenarios there are several limitations which must be acknowledged. First, the design of this study may have presented a limitation to determining the effects of ability, benevolence, and integrity on leadership perceptions. It was observed that the order of leader presentation markedly influenced perceptions and attitudes toward the male and female leaders. As indicated earlier, this may have implications for decision making within a corporate structure. In the present study, **because order was so influential, this may have obfuscated aspects of individuals' perceptions of leadership.** Particularly, as order influenced ability, benevolence, and integrity ratings, the true effects of these variables on trust might have been difficult to discern.

Ethnicity and cultural influences were not considered in this study which may be relevant in relation to trust perceptions (Niu & Rosenthal, 2009) as well as leadership perspectives. Traditional North American models of leadership may not apply to how other ethnic groups conceptualize leadership (Ayman & Korbaik, 2010). Ethnicity has been demonstrated to play a role in the value placed on ability, benevolence and integrity in work-related contexts. Specifically, North American women tend to place a higher value on integrity in the workplace, whereas women of Asian descent tend to place a greater value on benevolence and cultural similarity (Golesorkhi, 2006). As individuals

from a wide variety of ethnic backgrounds participated in this study, it may be an important moderating factor as to how leaders were perceived.

The population from which this sample was drawn may play a role in the potential for the study to generalize to a real world context. The present study provided insight into perceptions of the general public regarding qualities valued in high level leadership. However, in reality, the general public is not responsible for choosing a leader for a high level corporate position. A large part of this sample was unemployed, and of those who were employed, most held non-management positions. As such, the majority of this sample did not belong to a demographic category that would be responsible for choosing a CEO and might, in reality, have very little direct contact with the CEO in their company.

The present findings may have also been limited by the measure of trust used. Although previous research has used a scale measurement of trust to examine group-based biases (Niu & Rosenthal, 2009), in reality, there is an element of personal risk involved when deciding to trust a leader (whether as an employer or employee). As the scenarios in the present study were hypothetical, participants were not required to take a risk in trusting either leader. As such, it may be useful to use a format similar to the “trust game” (Bonein & Serra, 2009; Buchan, Croson, & Solnick, 2008) to assess trust in leaders in failing or successful scenarios.

Finally, taking into consideration that all analyses examining gender identification in this study did not meet expectations, it may be that identification with one’s gender group alone is not enough in terms of identifying with a particular leader. In the social identity theory of leadership, it is important for the leader to demonstrate

prototypical qualities relevant to an individual's social group in order for them to identify with that leader (Hogg, 2001; Haslam & Platow, 2001). Perhaps the description of the leader in the present study did not demonstrate an adequate level of prototypically masculine or feminine qualities in order to influence strong identification among participants. It has been demonstrated that appearances often have an impact on perceptions of leadership. Specifically, individuals with a more masculine appearance tend to be judged more favourably with respect to leadership dimensions (Sczesny, Spreemann, & Stahlberg, 2006) and the appearance of dominance tends to be associated with a higher level of success (Rule & Ambady, 2009). It might be profitable to use a photo of the leader rather than a silhouette in order to increase participant identification with the leadership candidates, but this might also introduce additional confounding features (e.g., attractiveness based on any number of factors).

A caveat that cannot be ignored is that participants might have been responding on the basis of political correctness or demand characteristics. That is, participants may have developed hypotheses concerning what the study was about, and behaved in a manner consistent with the presumed hypothesis, or they might simply have responded in a manner that did not make them appear to be gender biased (hence the greater choice of the female for a leadership position). Unfortunately, a measure assessing the potential contribution was not included in this study.

Finally, although the primacy effect observed in the present investigation might have implications for the interview and assessment process, in actual work settings, timing and the number of candidates vying for a position may also influence the dynamics concerning trust and choice. All candidates would likely not be assessed one

after the other. There may be a period of hours or days between resume assessments or interviews. In this case, primacy effects may be less important. Furthermore, it is likely than in a real world context, more than two candidates might be considered for a position. In this instance, order effects may become more complex. It would no longer simply be a case of comparing Leader A to Leader B. Moreover, with a higher number of candidates, it is likely that they would all have very different qualifications. In this regard, if a “good” candidate comes first in the sequence, this could have different implications for subsequent candidates than if a “bad” candidate comes first in the sequence. As such, in the interview process it is important to take timing and number of candidates into consideration.

Conclusions

The current findings indicated that regardless of gender, a primacy effect may influence perceptions of leadership. Specifically, being assessed second in a sequence may be related to a leader being judged less favourably based on comparison, rather than qualifications.

The present study may also have implications specifically for females in leadership positions. The influence of ability, benevolence, and integrity on trust in male and female leadership, indicates that in order to gain subordinate trust male and female leaders may need to possess different qualities. It appears that although females are not necessarily favoured for failing positions as previously reported (Ryan & Haslam, 2008), the likelihood of the female being trusted in a failing scenario depends primarily on whether she is considered benevolent. In this regard, it appears that demonstrating characteristics consistent with the female stereotype influenced the likelihood of the

female being trusted in a leadership position. As such, these factors may not be directly related to glass cliff assignments, but may influence how they trusted they are in a position, and in turn, their level of success.

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Appendix A Informed consent form

Study Title: Individual differences in leadership preferences.

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If you have any other concerns please contact: Dr. Janet Mantler, janet_mantler@carleton.ca (613-520-2600 ext. 4173).

Purpose and Task Requirements: The purpose of this project is to evaluate your perceptions of leadership in various contexts. We are interested in learning about how your past experiences, social group membership, and general beliefs affect your leadership preferences. In order to participate in this study you will complete a series of measures on-line, which will take approximately 30 minutes. When you have completed the survey you will be eligible for a \$5 gift certificate to Tim Hortons. **Please note, that in order to receive your gift certificate, your answers must be deemed valid. Individuals who respond randomly to the questions will not receive a gift card.**

Potential Risk and Discomfort: There are no physical risks in this study. You may experience some anxiety when reflecting on issues associated with discrimination.

Anonymity/Confidentiality: The data collected in this study will be kept confidential. We take special precautions to make sure that no one else will be able to identify you or what your responses were. Your personal information will be stored in a separate file from your questionnaire responses. Only your chosen "id name" will identify your questionnaire.

Right to Withdraw: Your participation in this study is entirely voluntary. At any point during the study you have the right not to complete certain questions or to withdraw from the study without any penalty whatsoever, however you are only eligible for compensation if you complete the entire study.

This study had been approved by the Carleton University Ethics Committee for Psychological Research (Ethics #10-106).

I have read the above description of the study. The data collected will be used in research publications and/or for teaching purposes. My sign-in indicates that I agree to participate in the study, and this in no way constitutes a waiver of my rights.

Appendix B Background information

Please take a few moments to complete some background information about yourself.
Please check the answer that best applies to you or write your answer when appropriate.

1. Sex: Female/ Male (please select one)

2. Age: _____

3. What is your citizenship status?

_____ Canadian citizen Since what year? _____ Country of origin

(**If not born in Canada)

(**If not born in Canada)

_____ Landed immigrant Since what year? _____ Country of origin

_____ Student visa Since what year? _____ Country of origin

_____ Temporary visa Since what year? _____ Country of origin

_____ Refugee Since what year? _____ Country of origin

4. What is your ethnic/racial background? *Please select the one that best applies to you.*

_____ Asian (e.g., Chinese, Japanese, Korean)

_____ South Asian (e.g., East Indian, Pakistani, Punjabi, Sri Lankan)

_____ South East Asian (e.g., Cambodian, Indonesian, Laotian)

_____ **Arab/West Asian** (e.g., Armenian, Egyptian, Iranian, Lebanese, Moroccan)

_____ Black (e.g., African, Haitian, Jamaican, Somali)

_____ Latin American/Hispanic

_____ Aboriginal

_____ White/Euro-Caucasian

_____ Other (please specify): _____

5. What is your religious affiliation? *Please select the one that best applies to you.*

_____ None—Atheist (e.g., belief that there is NO God)

_____ None—Agnostic (e.g., belief that the existence of God cannot be known)

_____ Protestant (e.g., United, Anglican, Baptist, Presbyterian, Lutheran, Pentecostal, Mennonite, "Christian")

_____ Catholic (e.g., Roman Catholic, Ukrainian Catholic)

- Jewish
- Muslim
- Buddhist
- Hindu
- Sikh
- Bahá'í
- Other (please specify): _____

6. What is your current relationship status? *Please select the one that best applies to you.*

- Single, and not seeing anyone
- Going out with someone
- In a serious dating relationship
- Have recently broken up Please specify how many weeks ago you broke up
- Living with an intimate other
- Engaged
- Married
- Separated/Divorced Please specify how many months ago you separated
- Widowed

If you are currently in a relationship, how long have you been in it? _____ years OR _____ months

7. Is your current (or most recent) partner: Male _____ OR Female _____?

8. If you are in a current relationship, is this **relationship** a source of support to you?

- | | | | | | |
|---------------------------|------------|--------------------------|------------------------|------------|-------------------------|
| 3 | -2 | -1 | +1 | +2 | +3 |
| Extremely
Unsupportive | Moderately | Slightly
unsupportive | Slightly
supportive | Moderately | Extremely
supportive |

9. Is your **family** a source of support to you?

- | | | | | | |
|-----------|------------|----------|----------|------------|-----------|
| -3 | -2 | -1 | +1 | +2 | +3 |
| Extremely | Moderately | Slightly | Slightly | Moderately | Extremely |

Unsupportive unsupportive supportive supportive

10. Are your **friends** a source of support for you?

3	-2	-1	+1	+2	+3
Extremely	Moderately	Slightly	Slightly	Moderately	Extremely
Unsupportive		unsupportive	supportive		supportive

11. Do you have children? No _____ Yes _____

a) If YES, how many? _____

12. What level of education have you completed?

_____ 8 years or less of elementary school

_____ some high school but no diploma

_____ a high school diploma or equivalent

_____ 1 to 3 years of college/university (including study at a technical college or CEGEP)

_____ an undergraduate university degree

_____ a master's degree

_____ a doctoral degree

_____ a professional degree [medicine (M.D.), dentistry (D.D.S.), law, or other similar degrees]

13. a) Are you currently a student? (Please pick one) No _____

Yes _____

b) If YES, what is your student status?

1. Full-time

2. Part-time

3. Special student

c) If YES, what is your major? _____

d) Year of study: 1st year _____ 2nd year _____ 3rd year _____

4th year _____

e) If YES, what is your current GPA? _____

14. If relevant, what is the highest level of education completed by your mother?
- 8 years or less of elementary school
- some high school but no diploma**
- a high school diploma or equivalent
- 1 to 3 years of college/university (including study at a technical college or CEGEP)
- an undergraduate university degree
- a master's degree
- a doctoral degree
- a professional degree [medicine (M.D.), dentistry (D.D.S.), law, or other similar degrees]

15. What is your mother's occupation? _____

What is the highest level of education completed by your father?

- 8 years or less of elementary school
- some high school but no diploma
- a high school diploma or equivalent
- 1 to 3 years of college/university (including study at a technical college or CEGEP)
- an undergraduate university degree
- a master's degree
- a doctoral degree
- a professional degree [medicine (M.D.), dentistry (D.D.S.), law, or other similar degrees]

16. What is your father's occupation? _____

17. What is your estimate of your family's gross income per year? *Please select the one that best applies to you.*

- | | |
|--|---|
| <input type="checkbox"/> under \$15,000 | <input type="checkbox"/> \$60,000 - \$74,999 |
| <input type="checkbox"/> \$15,000 - \$29,999 | <input type="checkbox"/> \$75,000 - \$89,999 |
| <input type="checkbox"/> \$30,000 - \$44,999 | <input type="checkbox"/> \$90,000 - \$104,999 |
| <input type="checkbox"/> \$45,000 - \$59,999 | <input type="checkbox"/> \$105,000 or more |

18. At this time, which of the following would you say most closely describes your family's socio-economic status?

1 2 3 4 5 6 7 8 9

Working Class

Middle Class

Upper Class

19. Are you currently employed full-time _____ part-time _____ not at all _____
20. If you are currently employed, where so? _____
 a) What is your position/title at your place of work?
 _____.
21. Are you retired? No _____ Yes _____
 a) If YES, what year did you retire in? _____
22. What is your occupation (previous occupation if retired)?

- (** Only participants who are employed or retired will respond to questions 23-26**)
23. Is your current place of employment (previous, if retired):
 ___ Unionized
 ___ Non-unionized
 ___ Not applicable/don't know
24. If unionized, are you a member of the union (if retired, were you previously a union member)?
 ___ Yes
 ___ No
 ___ Not applicable/don't know
25. Please choose the option that best describes your current position at your place of employment (previous position, if retired).
 ___ Upper level management (ex: CEO, president, vice-president)
 ___ Middle level management (ex: general manager, region/division manger)
 ___ First level management (ex: shift supervisor, department manager, office manager, store manager)

- Non-management (assistant, entry-level)
- Other (please specify)
26. If you are in a management position, approximately how many employees do you oversee? _____.
27. Do you have aspirations/career goals for a management/leadership position in your career (or future career)?
- Yes
- No
28. What is the population of the city in which you currently live?
- Large city: 100 million people or more
- Medium city: 100,000 - 999,999 people
- Small city: 10,000 – 99,999 people
- Rural area: less than 9,999 people
- Other *please specify*: _____
29. What is the population of the city in which you currently work or attend school?
- Large city: 100 million people or more
- Medium city: 100,000 - 999,999 people
- Small city: 10,000 – 99,999 people
- Rural area: less than 9,999 people
- Other *please specify*: _____

Appendix C CEO Candidate (Leader) Descriptions

In the following section you will be presented with descriptions of 2 candidates who are being considered for a CEO (Chief Executive Officer) position at a large company. The CEO's responsibilities include (but are not limited to); making all important financial decisions, hiring and firing employees, and developing marketing strategies. Please read the candidate description and you will then be asked to rate the candidate on several dimensions measuring general leadership characteristics. After rating the first candidate, you will be presented with the second candidate description.

John:



Education and Experience

- MBA
- 15 years mid-level leadership experience in financial services
- Average reviews from past employers
- Satisfactory management, delegation, organization skills
- Bilingual in French and English

Related Skills

- Mutual respect for co-workers, colleagues, and team members
- Promotes fairness among team members
- Consistent in leadership practices
- Active in welcoming and training new employees

Personal life

- Married father of 3
- Enjoys camping and fishing
- Volunteers at a local soup kitchen

Suggestions for improvement

- Not always approachable
- Sometimes can't look outside of the box
- Does not work well with all team members
- Appears nervous when speaking in public

Michelle



Education and Experience

- **MBA**
- **Average references**
- **15 years mid- level management experience in financial services**
- **Acceptable delegation, organization, and management ability**
- **Bilingual in French and English**

Other

- **Reliable in leadership practices**
- **Mutual acceptance of co-workers, colleagues, and team members**
- **Encourages responsibility among team members**
- **Takes an interest in making new employees feel welcome**

Personal life

- **Married mother of 3**
- **Volunteers at a local homeless shelter**
- **Enjoys hiking and gardening**

Suggestions for improvement

- **Is not always open to suggestions**
- **Does not always accept creative or new ideas**
- **Needs to work on public presentation skills**
- **Has difficulty collaborating with some team members**

Appendix D Ability, Benevolence, Integrity Questionnaire

Please rate the candidate on the following dimensions from a scale of 1 (strongly disagree) to 5 (strongly agree)

1. This candidate would be very capable of performing his/her job.

1	2	3	4	5
Strongly disagree			Strongly agree	
2. This candidate would be very concerned about employee welfare.

1	2	3	4	5
Strongly disagree			Strongly agree	
3. This candidate has a strong sense of justice.

1	2	3	4	5
Strongly disagree			Strongly agree	
4. This candidate would be successful at the things he/she tries to do.

1	2	3	4	5
Strongly disagree			Strongly agree	
5. Employee needs and desires would be very important to this candidate.

1	2	3	4	5
Strongly disagree			Strongly agree	
6. I would never have to wonder whether this candidate would stick to his/her word.

1	2	3	4	5
Strongly disagree			Strongly agree	
7. This candidate has much knowledge about the work that needs to be done.

1	2	3	4	5
Strongly disagree			Strongly agree	
8. This candidate would not knowingly do anything to hurt other employees.

1	2	3	4	5
Strongly disagree			Strongly agree	
9. This candidate would try hard to be fair in dealings with others.

1	2	3	4	5
Strongly disagree			Strongly agree	
10. I feel very confident about this candidate's skills.

1	2	3	4	5
Strongly disagree			Strongly agree	
11. This candidate would really look out for what is important to other employees.

1	2	3	4	5
Strongly disagree			Strongly agree	
12. This candidate has specialized capabilities that would increase the company's performance.

1	2	3	4	5
Strongly disagree			Strongly agree	
13. This candidate would go out of its way to help other employees.

- | | | | | | |
|--|-------------------|---|---|---|----------------|
| | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | Strongly agree |
| 14. This candidate's actions and behaviours are not very consistent. | | | | | |
| | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | Strongly agree |
| 15. Sound principles seem to guide this candidate's behaviour. | | | | | |
| | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | Strongly agree |
| 16. This candidate is well qualified. | | | | | |
| | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | Strongly agree |
| 17. I like this candidate's values. | | | | | |
| | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | Strongly agree |

Appendix E Scenario Descriptions

In the following section you will be presented with 2 scenarios. After each scenario you will be required choose a candidate (either John or Michelle) for the position and answer several leader and scenario-specific questions. **You are not required to choose a different leader for both scenarios. You may either choose the same leader both times or a different leader for each scenario.**

CEO – Company X

The previous CEO of Company X has retired and a replacement is needed. Company X was established 50 years ago and has a loyal network of customers. For the past several years this company has made a steady increase in profit and continues to appeal to new clients. Financial reports indicate that the future of this company looks strong and continued success is expected. The new CEO for this company would be required to maintain the success of this business and work towards further expansion.

The following is a description of the second scenario. After reading this scenario you will be required choose a candidate (either John or Michelle) for the position and answer several leader and scenario-specific questions. **You are not required to choose a different leader for both scenarios. You may either choose the same leader both times or a different leader for each scenario.**

CEO – Company Y

The previous CEO of Company Y has resigned due to extreme financial strain in the company. Company Y was established 50 years ago, but in the past several years has seen a steady decline in their profit. This year, they were forced to file for bankruptcy protection in order to avoid shutting down completely. Due to this strained financial situation, Company Y has begun to lose some faithful customers. Numerous employees have been laid off until further notice in order to cut costs. For those still employed, they are in constant fear of losing their jobs. The current executives on the board at Company Y have decided that a new CEO is needed to assist the company in this difficult situation.

8.
If the candidate performs well in the first year, how much should s/he receive as a bonus?

Appendix G Gender Identity Scale

Using the scale below, please rate the extent to which you agree or disagree with each of the statements below on a scale of 0 (strongly disagree) to 5 (strongly agree).

- | | 0 | 1 | 2 | 3 | 4 | 5 |
|---|-------------------|---|---|---|---|----------------|
| | Strongly disagree | | | | | Strongly agree |
| 1. I have a lot in common with other women/men. | 0 | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | | Strongly agree |
| 2. I often think about the fact that I am a woman/man. | 0 | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | | Strongly agree |
| 3. In general, I'm glad to be a woman/man. | 0 | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | | Strongly agree |
| 4. The fact that I am a woman/man rarely enters my mind. | 0 | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | | Strongly agree |
| 5. Generally, I feel good when I think about myself as a woman/man. | 0 | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | | Strongly agree |
| 6. I feel strong ties to other women/men. | 0 | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | | Strongly agree |
| 7. I often regret that I am a woman/man. | 0 | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | | Strongly agree |
| 8. Overall, being a woman/man has very little to do with how I feel about myself. | 0 | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | | Strongly agree |
| 9. I don't feel good about being a woman/man. | 0 | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | | Strongly agree |
| 10. I find it difficult to form a bond with other women/men. | 0 | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | | Strongly agree |
| 11. In general, being a woman/man is an important part of my self-image. | 0 | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | | Strongly agree |
| 12. I don't feel a sense of being "connected" with other women/men. | 0 | 1 | 2 | 3 | 4 | 5 |
| | Strongly disagree | | | | | Strongly agree |

Appendix H Debriefing

What are we trying to learn in this research?

We are interested in examining gender biases in trustworthiness and how these perceptions contribute to the glass cliff phenomenon. The glass cliff is a form of discrimination, where women are preferred for leadership positions only when the company is in a precarious/failing position. Specifically, we are interested in the relationship between gender biases in perceptions of trustworthiness (ability, benevolence, and integrity) and leadership preference in failing and successful companies. We are also interested in the role of an individual's discrimination experiences (primarily gender), gender identity, and willingness to trust others in contributing to leadership choices for failing or successful companies.

Where can I learn more about gender/women's issues in Canada?

Canadian Women's Foundation www.cdnwomen.org

National Council of Women of Canada www.ncwc.ca

What if I have questions later?

Please contact:

Kaitlyn Chambers, Graduate Researcher, 613-520-7513, kchambe1@connect.carleton.ca

If you have ethical concerns about the study please contact:

Dr. Monique Sénéchal, Chair of Carleton University Ethics Committee for Psychological Research, 613-520-1155, monique_senechal@carleton.ca

Any other concerns:

Dr. Janet Mantler, Chair of Carleton University Psychology Department, 613-520-2600, ext. 4173 janet_mantler@carleton.ca

Is there anything that I can do if I found this experiment to be emotionally draining?

Thank you very much for your participation in this study. If you have experienced severe distress/anxiety while completing any of these measures, please contact the following distress lines:

Nunavut: 1-800-661-0844 / 1-800-265-3333

Yukon: 1-867-668-5733 / 1-800-563-0808

Northwest Territories: 1-800-661-0844

British Columbia: 1-800-784-2433

Alberta: 1-877-303-2642

Saskatchewan: North Battleford 1-866-567-0055; Saskatoon 306-933-6200; Regina 306-757-0127

Manitoba: 204-946-9109

Ontario: Eastern 1-877-377-7775; Hamilton 905-525-8611; Ottawa 613-238-3311; Toronto 416-408-4357

Quebec: 1-800-567-6407

Newfoundland/Labrador: 1-888-737-4668

New Brunswick: 1-800-667-5005

Nova Scotia: Metro Halifax 902-421-1188; Pictou County 902-752-5952; Sydney 902-562-4357

Prince Edward Island: 902-368-5400

If you have experienced mild distress or anxiety please contact your family physician for referral to the appropriate resources in your community.