

The Impact of Gender-Based Stereotype Threat
on Leader-Follower Relations

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Abstract

This thesis explores the effects of gender-based leader stereotypes on leader-follower relations in terms of the implications of shared identity between the leader and the followers (team and/or gender). Four experiments assessed followers' attitudes toward their leaders when the leaders' genders were under conditions of stereotype threat as compared to advantage (Studies 1 and 2), no-threat (Study 3) or control (Study 4). Experimental conditions were invoked using text-based stereotype manipulations. In Study 1 (where stereotypes favoured male leaders, thus implicitly representing threat for females) and Study 2 (where stereotypes manipulated advantage/threat for both genders), undergraduates in mixed-sex teams rated team leaders' presentations. In Study 3, undergraduates in single-sex teams (under conditions of stereotype threat or no-threat) predicted their team leader's performance, indicated leader-follower proximity (leader's prototypicality, leader identification and collective threat), and reported perceived self-efficacy for leadership. Similar measures were obtained in Study 4, where corporate employees selected an effective leader from their work experience, prior to exposure to stereotype manipulations (threat or control).

The student studies had three main findings. First, male leaders benefitted from the ratings of high team identifiers (a) in the context of male advantage/female stereotype threat and (b) when males were under threat relative to the advantage condition. The benefit of team identification was not evident for female leaders. Second, male leaders benefitted from female followers' ratings under threat compared to the advantage condition. In contrast, female leaders under stereotype threat were downgraded by female followers relative to advantage or no-threat conditions. Third, stereotype threat negatively affected high team identifiers' self-efficacy for leadership. In the corporate study, male respondents' choice of an effective leader was more likely to be a male whereas there was no gender difference in the leaders chosen by female respondents. Drawing on role congruity theory and a social identity framework, the thesis analyses and finds evidence suggesting that stereotype threat as collective threat contributed to followers' relatively negative attitudes toward female leaders in terms of leader-follower relations.

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Chapter 1 Introduction

By stepping into the spotlight unprepared, Sarah Palin reinforced some of the most damaging and sexist ideas of all: that women are undisciplined in their thinking; that we are distracted by domestic concerns or frivolous pursuits like shopping; that we are not smart enough, or not serious enough, for the important jobs (Fortini, 2008).

I am furious that the Republican Party would think for even one second that I would cast my "female vote" for Sarah Palin... She is completely underqualified! Seeing her elected with McCain would make me feel embarrassed to be an American and a woman... (H, 2008)

The above quotes from two American women suggest that Sarah Palin's selection as vice presidential candidate in the 2008 US presidential elections triggered concerns that she would reinforce negative female stereotypes and justify the negative view of women in leadership roles. The implications of these quotes extend to broader gender issues in leadership, in particular, women's underrepresentation in the leadership domain and double standards in the assessment of female leaders. For example, in 2008, women accounted for only 16 per cent of the US congress; in 2013, this figure was 18 per cent (*Women in Elective Office*, 2013). Outside of the US Congress, similar patterns persist. For example, recent reports showed that in 2012, FTSE 250 companies had ten female CEOs in total and women constituted 9.4 per cent of directors on boards (*Female FTSE Report*, 2012). In view of such evidence of the gender gap in leadership, the quotes above take on a particular resonance, suggesting that American women had concerns that Palin would negatively reflect on them.

This thesis explores followers' concern that their female leaders *might* confirm a negative female stereotype (i.e. poor leader performance) and may constitute a collective threat (Cohen and Garcia, 2005) and how such threat may affect leader-follower relations. To elaborate on this question, the thesis integrates theories and research, including role congruity theory, stereotype threat theory, the social identity approach and research on stereotype threat as collective threat. It is worth briefly introducing each of these concepts here before outlining how they are integrated in this study. This chapter will then go

on to introduce the aims of the thesis and its potential implications before presenting an outline of the structure of the document. A review of the literature is provided in the following chapter.

Role congruity theory (Eagly and Karau, 2002) focuses on how gender stereotypes bias leader emergence and people's perceptions of leader effectiveness. Stereotype threat theory (Steele, 1997), as applied to gender and leadership research (Davies, Spencer and Steele, 2005), discusses the threat contained in gender stereotypes and its negative effects on females' aspiration for leadership roles. The thesis draws upon the social identity analysis of leadership (Hogg, 2001; Reicher, Haslam and Hopkins, 2005; van Knippenberg and Hogg, 2003) to examine how stereotype threat directed toward the leaders' gender may interfere with followers' positive identity in terms of their shared team identity and gender category. The thesis further examines how stereotype threat to the leader's gender may be experienced as a collective threat (Cohen and Garcia, 2005) and thus to have an impact on followers' attitudes (i.e. distancing or solidarity) toward their leaders. The next sections provide a brief overview of the rationale for the integration of the theories which underpin the thesis and will be used to formulate the research questions presented at the end of this chapter.

1.1 Role Congruity Theory and Stereotype Threat Theory

Role congruity theory argues that females in leadership roles commonly face because people view typical leader roles as congruent with male stereotypes (i.e. assertiveness) and incongruent with female stereotypes (i.e. emotionality). As a result of such views, females in general are less likely to emerge as leaders (Eagly and Karau, 1991) and both male and female evaluators are likely to perceive actual female leaders in organizations as less effective than male leaders (Eagly, Karau and Makhijani, 1995; Eagly, Makhijani and Klonsky, 1992). Moreover, in many organizational context and group studies, such negative attitudes are more pronounced when males evaluate female leaders (Eagly et al., 1995; Schein, 2001; Wolfram, Mohr and Schyns, 2007). Eagly (2005), in a theoretical paper, moved the scope of study from how individuals perceive female leaders in general and elaborated on the perceptions of followers joined by common values. She argued that followers perceive females

as incompetent to represent them, thus, female leaders relative to male leaders face extra challenges to develop good relations with and to be accepted by their followers.

Davies et al. (2005) examined the effects of gender stereotypes on females' aspiration to leadership roles. Their research showed that females aspired less to leadership roles after watching a gender-typical commercial compared with a gender-irrelevant commercial. The researchers proposed that the results were due to stereotype threat, a fear in an individual that others may stereotypically view him/her and that she/he may confirm that stereotype in some performance domain (Steele and Aronson, 1995). Related research has demonstrated that females in male dominated fields, such as mathematics, commonly perceive stereotype threat and think of changing career options more often than women in female-dominated fields (Steele, James and Barnett, 2002). Based on the findings of Steele et al. (2002), Davies et al. (2005) argued that stereotype threat plays a role in women's underrepresentation in the field of leadership; that is, due to stereotype threat females may dis-identify with the leadership domain.

Both role congruity theory and stereotype threat theory argue that gender stereotypes play an important role in the underrepresentation of females as top leaders. However, these two fields of research focus on complementary explanations of why such underrepresentation occurs. Research in support of role congruity theory indicates that people commonly, but males particularly, perceive women as not suited for leadership roles and unable to represent masculine values that are valued in the leadership domain. Stereotype threat theory maintains that females perceive themselves negatively (and thus not suitable for leadership roles) as a result of threat contained in the incongruity between stereotypical female roles and leadership roles. While role congruity theory focuses on how people perceive female leaders, stereotype threat theory emphasises female leaders' self-perceptions as obstacles on females' way to becoming leaders. Integrating these two fields of research, this thesis aims to investigate how followers respond to their female leaders when stereotype threat applies to females. This integration simultaneously addresses (a) stereotype threat contained in the incongruity between leadership roles and

female stereotypes and (b) the consequences of such threat on followers' attitudes toward female leaders. The thesis extends this body of work to explore followers' attitudes toward their leader in response to stereotype threat directed toward the leader's gender. Drawing upon the social identity approach, the thesis explores the effects of such threat in terms of measures of leader-follower relations and by accounting for the role of shared identity (team and/or gender) between the leaders and followers.

1.2 *The Social Identity Approach*

According to the social identity theory of leadership (Hogg, 2001; Reicher et al., 2005; van Knippenberg and Hogg, 2003) an important component of a leader's influence derives from perceptions of sharing a common identity with the group he/she is leading – that is, an effective leader is perceived by followers as “one of us” and “doing it for us”. From this perspective, sharing a common identity with one's followers is an important leadership resource; leaders have greater influence when perceived as “in-group” as compared to “out-group” (Fielding and Hogg, 1997). Moreover, members who identify with a group are more likely to demonstrate group cohesion in contexts where the group is under threat (Branscombe, Ellemers, Spears and Doosje, 1999). Social identity theory also draws attention to the importance of group-based (social) identities in defining one's sense of self and relations with others (Tajfel and Turner, 1979). To the extent that we perceive that we share a social identity with others and the identity is one that we are attached to (i.e., identify with) then in contexts where such identities are cued, we derive our sense of self-worth from evaluations of the group. Leaders, who “represent”, as it were, the essence of the group, i.e. are prototypical of the group (e.g., Hogg, Hains and Mason, 1998) are important forms of reference for how group members are evaluated, not just by others (out-group as well as in-group members) but also by the self. Thus, perceptions of threat directed to the leader (i.e., gender-based leader stereotypes for females) arguably have implications for group members who perceive themselves as being represented by this leader.

This thesis highlights two key points in the social identity approach to examine followers' concerns regarding the leader's potential gender stereotype-confirming behaviour. The first point is related with the common identity

between the leaders and the followers, such as in the context of an organizational team. Based on empirical research, the social identity approach argues that followers expect their leaders to represent group prototypical values and norms (Hogg, 2001; Reicher et al., 2005; van Knippenberg and Hogg, 2003) that make the followers 'special' compared with other relevant out-groups (Hogg et al., 1998). Accordingly, followers expect their leaders to positively reflect on their team identity in order to satisfy the need for positive distinctiveness, a state individuals achieve via competitive inter-group comparison (Tajfel and Turner, 1979). When such comparison threatens identity, people are motivated to restore positive distinctiveness (Branscombe et al., 1999). Because gender-based stereotype threat implies that the leader might perform poorly, it may interfere with the positive distinctiveness of followers' team identity.

Second, based on the view that people possess multiple self-categories (Turner, 1985), individuals in one context may categorize themselves based on their gender category and in another context based on their team identity. While males and females can unite as members of a team, gender category divides the team into males and females. Because gender-based stereotype threat cues followers to view themselves in terms their gender category, followers could potentially perceive their leader as a representative not only of their team identity, but also gender category. Such representation suggests that stereotype threat directed toward the leader's gender entails a potential threat to followers' positive distinctiveness in terms of their team identity and gender category.

To explore how followers may *act* toward their leaders in response to such threats, this thesis draws upon research on collective threat triggered by the potential stereotype-confirming behaviour of an in-group member. Cohen and Garcia (2005) defined collective threat as the fear in the group that one in-group member's behaviour may reinforce a negative group stereotype thus giving credence to the negative view of the group. Lewis and Sherman (2003), in a theoretical paper, argued that job interviewers from negatively stereotyped groups would reject in-group applicants in response to stereotype threat, triggered by the fear that when hired, the applicants' work-related performance might reinforce the negative view of the group. Lewis and Sherman's (2003)

assertions regarding the rejection of the in-group member were supported by Cohen and Garcia's (2005) empirical study. Cohen and Garcia examined the broader consequences of stereotype threat on the rest of group members' performance, self-esteem and attitude toward the in-group. The next section reviews Cohen and Garcia's research, a study this thesis relies on in the exploration of followers' attitudes and behaviour toward their leaders in response to stereotype threat.

1.3 *Stereotype Threat as Collective Threat*

Cohen and Garcia's study (2005) used American females and African Americans as participants in verbal and quantitative ability tests because these groups face negative stereotypes in these domains in the USA. In the no-threat condition, their study used a stereotype-irrelevant domain. To reinforce stereotype threat, trained in-group confederates indicated that the test was difficult and challenging of their abilities. Participants received no further information about the results of the in-group member's test. The researchers found that the participants physically distanced themselves from and showed less imitation of the confederate under threat relative to the no-threat condition. The researchers explained the results from the perspective of the social identity approach: that is, by potentially confirming the negative stereotype, the in-group member interfered with the group's need for positive social identity, which triggered collective threat.

Cohen and Garcia (2005) argued that distancing from the in-group member resembles the rejection of deviates as part of the black sheep effect (Marques and Paez, 1994). Research showed that, as part of symbolic exclusion, groups, especially high identifiers, devalue individuals who violate positive group norms (Biernat, Vescio and Billings, 1999; Branscombe, Wann, Noel and Coleman, 1993; Oishi and Yoshida, 2002). Cohen and Garcia highlighted differences between the black sheep effect and the observed distancing under collective threat. First, the black sheep effect includes the in-group member's *actual* behaviour, while collective threat refers to his/her *potential* behaviour. Second, the black sheep effect refers to the violation of *positive* group norms; in contrast, collective threat refers to the fear that an in-group member may confirm a *negative* group stereotype. Importantly, in

collective threat, distancing occurred for the mere possibility of the in-group member confirming the negative group stereotype, indicating that stereotype threat had a powerful effect on attitudes toward the in-group member.

Cohen and Garcia (2005) found some limited evidence for solidarity with the in-group member. Among high racial identifiers African Americans, physical distancing in the two conditions was not different. Cohen and Garcia suggested that under various sources of identity threat individuals have been shown to maintain commitment toward the in-group when group membership is important (Branscombe et al., 1999). Accordingly, Cohen and Garcia argued that the absence of distancing on the part of high racial identifiers was an indication of solidarity toward the in-group member.

In the present research programme, Cohen and Garcia's study (2005) provides insight into how followers may act toward their leaders when stereotype threat applies to the leader's gender. The main point in collective threat research is that groups fear that one in-group member may confirm a negative group stereotype and this fear is sufficient to trigger collective threat for the group with implications for attitudes toward the in-group member. Cohen and Garcia's study found evidence for distancing and limited evidence for solidarity, which suggests that followers may distance themselves from or show solidarity toward their leaders in response to stereotype threat.

1.4 Aims of the Present Thesis

This thesis highlights that gender –based leadership stereotypes have relevance for the followers due to sharing team identity and/or gender category with the leader. Building on collective threat research (Cohen and Garcia, 2005), the thesis contributes to the stereotype threat literature by shifting the focus from female leaders' self-perceptions and self-evaluation to how the followers respond to their leaders. The thesis provides an integrated approach that emphasises the common bond between the leaders and followers in the exploration of the effects of gender-based leader stereotypes on followers' attitudes. Accordingly, the thesis goes beyond Cohen and Garcia's study in two particularly notable ways. First, while Cohen and Garcia studied attitudes towards non-leader in-group members, the thesis focuses on leaders. Second, in Cohen and Garcia's study, in-group members represented a single identity,

i.e., either females or African Americans. In contrast, this thesis examines the concurrent representation of a shared team identity and/or gender category. The thesis aims to reflect on stereotype threat directed toward female leaders as collective threat to (a) the shared team identity of followers represented by the leader, and (b) to female followers who share gender category with the leader. The integration of theories led to the formulation of research questions that address issues that were previously unaddressed in the literature. These questions form the core of the research proposition in this thesis and are outlined here.

First, this thesis asks whether male and female followers would differently respond to female leaders in response to stereotype threat. Previous research demonstrated that in general males are more likely than females to have relatively negative attitudes toward female, as compared to male leaders (Eagly et al., 1992; Wolfram et al., 2007). Expanding such research, this thesis examines followers' attitudes toward their leaders by accounting for (a) stereotype threat embedded in gender-based leadership stereotypes, (b) the shared team identity and/or gender category between the leaders and followers, and (c) the leader's role to represent such identities. Accordingly, male followers might worry that their female leader's potential gender stereotype-confirming behaviour would negatively reflect on followers' shared team identity, a fear predicted by collective threat research (Cohen and Garcia, 2005) and the social identity theory of leadership (e.g., Reicher et al., 2005). The thesis investigates whether such concerns would affect male followers' attitudes toward female leaders in terms of distancing as outlined in Cohen and Garcia's study. The thesis also examines female followers' attitudes toward female leaders in response to stereotype threat. Compared with male followers, female followers being represented in terms of a shared team identity and gender category would face a double threat. Would this double threat to female followers have consequences on their attitudes toward their female leaders? In sum, would stereotype threat directed toward females have different effects on male and female followers in terms of their attitudes toward female leaders?

Second, the thesis asks whether social identification with the shared team identity and with gender category would influence followers' attitudes toward

female leaders in response to stereotype threat. Social identification implies that one derives his/her self-definition based on group membership, a way of defining the self which indicates enhanced need for the group's positive identity (Tajfel and Turner, 1986). Accordingly, high identifiers might respond more negatively to female leaders in collective threat than low identifiers. In contrast, Branscombe et al. (1999) argue that social identification leads to commitment toward other group members under various sources of identity threat, such as threat to value and distinctiveness. Therefore, identification with the shared team identity and/or to gender category might serve as a resource to mobilize support for the leader under stereotype threat. In sum, this thesis asks if high identifiers of the team and/or gender category would distance themselves from or show support toward their leaders in response to stereotype threat directed toward the leader's gender.

Finally, would the leader's gender make a difference to followers' attitudes? The literature on gender stereotypes and leadership focuses overwhelmingly on the negative implications of female stereotypes on how female leaders are perceived. A smaller number of studies yet demonstrated that subordinates generally do not appreciate their leaders' (regardless of the leader's gender) exhibiting negative male stereotypes, such as arrogance and aggression, and simultaneously, females are often stereotyped as warm, empathetic and good team players, characteristics that followers generally prefer in leaders (Eagly, 2007; Prentice and Carranza, 2002). Due to sharing team membership with one's leader and the processes of identification that flow from team identity, becoming aware of the negative gender stereotype about one's leader may trigger collective threat for the team members, regardless of the leader's gender. This impact may derive from the leader functioning as a representation of one's team and thus one's self. Accordingly, stereotype threat directed toward the leader's gender might have a common effect on the followers irrespective of whether the leaders are males or females. In contrast, based on role congruity theory, there might be a particular sensitivity that comes from the negative stereotype of females and leadership. Thus, the widespread negative stereotyping of females in terms of leadership skills may enhance the relevance of collective threat to the followers relative to when stereotype threat

applies to male leaders. This research programme explores if the followers respond differently to male and female leaders when stereotype threat is directed toward their leader's gender.

1.5 *In Summary*

Research indicates that stereotype threat can constitute a negative and pervasive effect for women in the work place (von Hippel, Issa, Ma and Stokes, 2011) and it negatively affects females' aspiration for leadership roles (Davies et al., 2005). Exploring collective threat (Cohen and Garcia, 2005), the thesis contributes to the understanding of stereotype threat effects in terms of leader-follower relations in work-based contexts. Distancing in response to such threat implies that the followers (i.e. team members) would not support their female leaders, an outcome which would, in turn, indicate weakened leader-follower relations. The consequences of such distancing could include reduced leader effectiveness and even the isolation of the leader in the team. On the contrary, solidarity in response to stereotype threat implies support, an attitude that would strengthen leader-follower relations and facilitate the leader's coping with the threat. High team identifiers' attitudes toward their leaders are particularly important because these individuals play a key role in the success and effectiveness of their leaders and their teams (Hogg, 2001).

Addressing the consequences of stereotype threat on leader-follower relations, the present thesis has implications for public policy that aims to increase the representation of female leaders in top organizations. In the United Kingdom, Lord Davis (2011) encouraged an increase in the proportion of women on corporate boards to 25% per cent by 2015. Further, the European Commission aims to increase the representation of female non-executive directors in Europe's biggest companies to 40 per cent by 2020 (*European Commission, 2012*). While policies such as these may, through regulation, lift some of the barriers females face on their way to becoming top leaders, stereotype threat nonetheless has implications for female leaders' relationship with their followers. Research indicates that stereotype threat embedded in gender inequality has a negative impact on female directors' contribution to strategic decisions in the boardroom (Nielsen and Morten, 2010). This threat

may transfer as collective threat to people such as shareholders represented by female directors and result in distancing from female leaders.

The present thesis aims to shed light on such organizational implications of collective threat by exploring the followers' attitudes toward their leaders. The remainder of the thesis includes a literature review (Chapter 2) that provides an integration of the theories and research introduced in Chapter 1. Following the literature review, the thesis contains four experimental studies (Chapters 3–6) designed to test stereotype threat effects on followers' attitudes toward their leaders. Study 1 (Chapter 3) focuses on the implications of how gender stereotypes favouring males affect followers' performance ratings for male and female team leaders. Study 2 (Chapter 4) extends the manipulations to male leaders to investigate whether collective threat effects have similar or different consequences for female and male leaders in terms of followers' ratings of their leaders' performances. Study 3 (Chapter 5) examines specifically the implications of shared gender category between team leaders and followers in response to gender-based stereotype threat. Study 4 (Chapter 6) aims to test collective threat effects in a corporate sample. Finally, Chapter 7 considers the results of the empirical chapters as a whole and discusses their contribution, conclusions and implications for organizational practice and future research.

Chapter 2 Literature Review

Chapter 2 reviews the theories and research (discussed in the Introduction) this thesis draws upon in the exploration of gender-based stereotype threat effects on leader-follower relations. To provide background information, the first section reviews the literature regarding two aspects of group-based stereotypes: one relates to biases in people's perceptions and judgements of individual members of groups, while the other discusses stereotype threat, which concentrates on the negative effects of stereotypes on individuals' performance and self-perception. Building on these two fields of research, the thesis outlines role congruity theory (focusing on how people perceive female leaders) and stereotype threat theory as applied to leadership and gender research (focusing on threat and the self-perception of female leaders) and elaborates on the role of followers in prejudice toward female leaders. The thesis then integrates the key ideas in these two perspectives, which then leads to the discussion of how gender-based stereotype threat may relate specifically to the followers and how it may affect followers' attitudes toward their leaders. The thesis addresses these points based on the social identity analysis and research on stereotype threat as collective threat. The final section in the literature review provides an introduction to the empirical chapters aimed to provide insights to the research questions raised in Chapter 1.

2.1 *Stereotypes*

2.1.1 *Efficiency versus Inefficiency*

A father and his only son got into a car accident. The father died but the son survived and was taken to the hospital for minor surgery. The surgeon came in and said, 'I can't do any surgery on this boy, he is my son.' How is this possible?

Many people find it surprisingly hard to work out this puzzle. The father and his son are male. So, who is the surgeon? The answer is the boy's mother – however, surgeons are stereotypically male, not female. This puzzle illustrates that stereotypes contain general sets of ideas about the characteristics of groups and social roles (Eagly, 1987; Moskowitz, 2005). Because stereotypes cue relationships between group membership and social roles, people have

expectations regarding what roles people with different backgrounds may undertake (Eagly, 1987). Social judgements and inferences become inaccurate when people generalize instead of drawing attention to individual qualities. The limitations associated with stereotypes are rooted in the principle of least effort (Allport, 1979), which maintains that individuals use stereotypes to avoid the demanding task of systematic information processing and yet achieve a good enough understanding of the social world. In other words, perceivers act as “cognitive misers” and aim to retain and reinforce established beliefs (Fiske and Taylor, 1984).

Experimental studies on stereotypes identified the following characteristics of social information processing (Moskowitz, 2005): (1) People identify and remember stereotype-consistent information easily and quickly, while stereotype-inconsistent information is ignored or rapidly forgotten, especially when processing demand is high (Dijksterhuis and Van Knippenberg 1995); (2) People encode social information in a stereotype-maintaining way and assimilate unfamiliar information into existing stereotypes (von Hippel, Sekaquaptewa and Vargas, 1995); (3) When people take notice of stereotype-inconsistent behaviour and traits, they encode that information as dissonant with the stereotype and do not use it in the overall view of the stereotyped group (Wigboldus, Dijksterhuis and Knippenberg van, 2003). As a result, people maintain to make stereotype-congruent inferences. (4) Finally, perceivers confuse and recall stereotype-congruent information which members of stereotyped groups have not exhibited (Pittinsky, Shih and Trahan, 2006). In sum, perceivers automatically identify and fit the features of targets into a pre-existing category, which activates the relevant group stereotypes simply because the perceivers know the stereotype (Devine, 1989; Moskowitz, 2005).

Researchers suggest that people hold on to stereotyping in spite of its limitations because stereotypes are an efficient response to observers' inability to process information about each individual as a unique stimulus. Empirical and theoretical studies suggest that people need categories to manage the overwhelming flow of information to the senses and to adapt to and navigate in the physical and social world (Allport, 1954; Fiske and Neuberg, 1990; Haslam, Turner, Oakes, Reynolds and Doosje, 2002; Rosch, 1975; Stangor and Lange,

1994; Tajfel, 1981; Taylor, Fiske, Etcoff and Rudemann, 1978). Categories structure knowledge as mental representations of classes or groups of people, objects, things and events and allow individuals to understand the world around them and to make inferences and judgements (Moskowitz, 2005). Stereotypes simplify and systematize social data by grouping people into preconceived categories so it is easier for individuals to identify, recall, react to and predict social information. Thus, stereotypes allow individuals to participate in social interactions without specifically knowing others, to predict others' behaviour and to plan their own behaviour toward others (Macrae, Milne and Bodenhasuen, 1994; Moskowitz, 2005). Further, stereotypes also aid people to explain events that are not clearly understood (Moskowitz, 2005). When people lack an integrated understanding, they have a need to reduce ambiguity and they strive to see parts of events as a functional whole and coherent organization (Carlson and Heth, 2000; Humphrey, 1924). When others behave in ways that are hard to explain, perceivers can grasp onto stereotypes and develop a coherent understanding of the observed behaviour. In sum, stereotypes are pervasive and readily accessible, and when cued, they direct attention, interpretation, expectations and responses to others.

2.1.2 Prejudice and Discrimination

In a classic experiment by Allport and Postman (1945), white American participants seated in a row were shown a picture of a white man on a bus holding a switchblade and talking with a black man. The participant sitting at one end of the row carefully studied the picture and described it to the adjacent participant in the row. The researchers asked the second participant to pass on the information as heard to the third participant; beginning a chain of participants describing the picture to each other in succession as the information passed through between them. The researchers found that the final participants often incorrectly reported that instead of the white man, the black man was holding the switchblade. Some participants even stated that the black man waved the switchblade to threaten the white man. This simple experiment showed that negative group stereotypes not only affect the processing, interpretation and recollection of social information, but can also reflect prejudice against stereotyped groups.

Researchers define stereotypes, prejudice and discrimination as related but different concepts (Fiske, 1998; Oakes, Haslam and Turner, 1994). Stereotypes are the cognitive component, prejudice the affective and discrimination is the behavioural component of prejudicial behaviour. Prejudice relates to implicit or explicit attitudes toward the members of some groups based solely on membership with those groups. These attitudes might be positive, negative or neutral (Allport, 1954; Crandall and Eshleman, 2002; Tajfel, 1982). Discrimination occurs when stereotypes negatively describe targeted groups, thus the perceiver may either like or dislike individual members of those groups and such attitudes can be expressed in verbal and non-verbal behaviour (Dovidio, Kawakami and Gaertner, 2002; Moskowitz, 2005). Therefore, visible social categories such as race or gender can exert more influence than other relevant characteristics, such as individual qualities, skills and knowledge. Importantly, researchers emphasize that people as “motivated tacticians” decide how much effort to use when they categorize and make judgements about others (Fiske, 2004; Molden and Higgins, 2005). Thus, perceivers may question the validity of stereotypes and show more cognitive effort toward personalizing the target (Baumeister and Bushman, 2008; Monteith, Sherman and Devine, 1998).

Recently negative stereotyping of and discrimination against women and ethnic minorities has decreased, at least in terms of explicit measures (McConahay, 1983; Swim, Aikin, Hall and Hunter, 1995). Governments and organizations have implemented affirmative action to provide equal opportunity for members of social groups who traditionally have faced discrimination in finding employment or receiving fair treatment in the justice system (Clayton, 1992). However, researchers argue that old-fashioned prejudices continue to exist in the form of modern sexism and racism (McConahay, 1983; Rooth and Agerström, 2009; Swim et al., 1995). Such attitudes include resentment toward women's and ethnic minorities' demands, lack of support for policies intended to help women and minorities and the denial of the continued existence of discrimination. In sum, in recent years, people belonging to majority groups have used negative stereotypes less explicitly, yet minority members still face prejudice and discrimination in more subtle forms.

2.1.3 *Stereotype Threat*

The stereotype threat research paradigm concentrates on the implications of negative stereotypes on individuals in terms of performance and self-perception. The *threat* relates to the individual's fear that she/he may perform poorly in some stereotyped performance domain, such as intellectual tasks, and thus may reinforce negative group stereotypes (Aronson, Quinn and Spencer, 1998; Spencer, Steele and Quinn, 1999; Steele, 1997; Steele and Aronson, 1995). When stereotypically viewed, performance pressures (e.g. stress) increase and individuals generally perform more poorly than their non-stereotyped counterparts relative to situations when there is no such threat.

Shapiro and Neuberg (2007) elaborated on the various types of fears that may emerge in stereotype threat situations. Beyond the worry of performing poorly, their study focused on the individuals' concerns regarding how others may view them. Shapiro and Neuberg identified six different types of stereotype threat depending on the target of the threat – self or in-group – and the source of the threat – self, in-group others or out-group others. Stereotype threat can cause worries regarding self-reputation or group-reputation, both characterizing solo, intra- and-inter-group contexts. Self-reputation can be threatened in the eyes of out-group members as well in the eyes of in-group members and in the performers own mind, as she or he may be fearful that the stereotype is true for her/himself.

Research has explored the factors that make people vulnerable to stereotype threat effects (moderators) and other factors that underlie the mechanism of stereotype threat effects on performance (mediators). Moderators include stigma consciousness (Brown and Pinel, 2003), identification with the negatively stereotyped group (Schmader, 2002) and identification with the targeted domain (Aronson et al., 1999). Possible mediators include increased arousal (Ben-Zeev, Fein and Inzlicht, 2005); performance anxiety (Quinn and Spencer, 2001); attention deficit (Cadinu, Maass, Rosabianca and Kiesner, 2005); reduced working memory capacity (Schmader and Johns, 2003) and low performance expectation (Stangor, Carr and Kiang, 1998). Shapiro and Neuberg (2007) argue that the different moderators and mediators indicate that stereotype threat results from different types of fears.

Researchers argue that stereotype threat implies a social context in which one's group negatively compares with an out-group (Aronson et al., 1999). Thus, while one may have a stereotypical advantage in one context, one might experience stereotype threat in another context. For example, Aronson et al. (1999) showed that white American men, a group that is stereotyped as having high status in many areas, showed stereotype threat effects when compared with Asians in terms of a quantitative task, a domain in which Asians are positively stereotyped. Steele (1997) argued that stereotype threat is an ongoing concern in educational institutions for stereotyped groups. As a result, women and African Americans underperform relative to white American males in stereotyped domains such as mathematics. Members of target groups often disidentify with the stereotyped field and give up career aspirations, which at least in part explains why women and minorities are under-represented in stereotyped domains (Steele et al., 2002).

2.2 Gender Stereotypes and Leadership

As the research outlined in the previous sections indicated, stereotypes have implications for a wide range of social groups and social roles (i.e. professions and occupations). In the workplace, stereotypes can bias how employers, subordinates and colleagues perceive and judge members of stereotyped groups, such as women and ethnic minorities, having implications for discrimination in terms of hiring and promotions for leadership roles (Eagly and Chin, 2010). Importantly, negative group stereotypes contain a threat for targeted individuals and can negatively affect performance and self-perceptions as a result of stereotype threat. In this thesis, these two fields of research provide the foundations to explore the implications of gender-based leadership stereotypes on how female leaders are perceived and how females perceive themselves when it comes to leadership. The following section outlines role congruity theory and stereotype threat theory as applied to gender and leadership research, followed by the integration of key ideas in these two perspectives. This integration aims to raise questions regarding the specific role of followers in prejudice against female leaders, leading the thesis to elaborate on stereotype threat in the context of leader-follower relations based on the social identity approach.

2.2.1 *Role Congruity Theory*

Role congruity theory (Eagly and Karau, 2002) argues that females face two types of prejudice in the leadership domain. First, they are less likely to emerge as leaders than males and second, people in general evaluate actual female leaders less favourably than male leaders. Such prejudice emerges because typical leader roles are congruent with male stereotypes, but incongruent with female stereotypes (Eagly, 1987). People perceive females as nurturing, communal and emotional, while they view leader roles as requiring masculine attributes such as assertiveness (Williams and Best, 1990). Additionally, gender stereotypes prescribe what are appropriate roles for men and women to undertake and what behaviours they should follow (Eagly, 1987; Glick and Fiske, 1996; Heilman, 2001). As a result, people often prefer females to take on assistant roles rather than leadership roles. Further, in order to be considered competent for leadership roles, females are required to perform better than males and to demonstrate clear and explicit evidence of high levels of competence (Foddy and Smithson, 1999; Shackelford, Wood and Worchel, 1996).

Leader categorization theory argues that leader effectiveness depends on whether a leader's characteristics match fixed, pre-set conceptions of ideal leaders in the form of leader prototypes (Lord, Foti and De Vader, 1984; Lord, Foti and Philips, 1982; Lord and Maher, 1990). Role congruity theory maintains that gender stereotypes bias whether people perceive female leaders as ideal leaders and raise doubts about females' competence for leadership roles (Eagly and Diekmann, 2008; Heilman, 2001; Hoyt and Blascovich, 2007), thus, people use different standards to evaluate male and female leaders (Berger, Webster, Rosenholtz and Ridgeway, 1986; Foschi, 2000).

Eagly and Karau (2002) relied on earlier empirical studies investigating gender differences in leader emergence and perceived leader effectiveness. However, more recent research still confirms the importance of role congruity theory (Koenig, Eagly, Mitchell and Ristikary, 2011), although researchers acknowledge that people accept females in leadership roles more readily than in the past (Eagly and Diekmann, 2008).

2.2.2 Empirical Basis of Role Congruity Theory

Eagly and Karau (1991) conducted a meta-analysis of 58 studies to examine the relationship between leader emergence and gender. In some of those studies, participants rated the leadership contribution of individuals in groups, while others examined leader emergence in initially leaderless groups. The results of the meta-analysis indicated that for 'masculine' tasks, males emerged as leaders more frequently than females. Males' advantage reduced when the leader role required social interaction, a skill which can be seen as a positive female attribute. However, Eagly and Karau (1991) argued that the benefit of female stereotypes are short-lived because most organizational leader roles are seen to require masculine characteristics.

To investigate the relationship between gender and leader effectiveness, Eagly et al. (1992) in a meta-analysis aggregated 61 experimental studies in the Goldberg paradigm (Goldberg, 1968), a method of study in which trained confederates display male or female leadership styles. Eagly et al. found that when female leaders became assertive and confident, (i.e. when they violated female stereotypes), male evaluators gave them negative ratings. The researchers argued that when females attempt to conform to the male leadership model, they will fall short in the gender role. Yet, when women conform to the gender role, then people see them as not suited for the leadership role. Based on the work of Fiske and Neuberg (1990), Eagly et al. (1992) argued that such bias arises because typical leadership prototypes and female stereotypes are frequently utilised and easily accessible constructs.

Eagly et al. (1995) provided a further meta-analysis in which superiors, peers and subordinates rated the effectiveness of male and female leaders. Their analysis had three main findings. First, the evaluators rated female leaders as less effective in male-dominated leadership roles compared with positions that had a more feminine definition. For example, people rated female leaders lower in military organizations than in education and social services. Second, female leaders generally received lower ratings from male than from female evaluators. Third, the evaluators rated males as more effective than females at the top of the organizational hierarchy in particular, a trend which was argued to occur because people associate top leadership positions with

masculine qualities (Lord and Maher, 1993, 1990). In sum, research suggests that people prefer to have male leaders and have less favourable attitudes toward potential and actual female leaders than toward males in the same roles. These perceptions particularly relate to positions that have a masculine definition, are at high levels in the organization and are especially apparent when males evaluate females.

Recent research continues to confirm the existence of discrimination against females in the workplace, showing that women are overrepresented in leadership positions assessed as precarious (Ryan and Haslam, 2005, 2007; Ryan, Haslam, Hersby and Bongiorno, 2011). Ryan et al. (2011) suggest that the “think manager – think male” stereotype in a crisis turns into “think crisis – think female” stereotype. Based on attribution theory (Heider, 1958; Kelley and Thibaut, 1978; Weiner, 1986), Ryan and Haslam (2007) argued that people attribute distress observed in women leaders in such roles to dispositional rather than to situational factors. The researchers maintained that these attributions contribute to the perception that women are fragile and emotional, and such characteristics are used as evidence that females are unsuited for leadership and should be denied the opportunity to occupy leadership positions.

2.2.3 Followers' Prejudice toward Female Leaders

Research in support of role congruity theory commonly focuses on the negative effects of gender stereotypes on how employers, superiors, peers and colleagues perceive female leaders compared with male leaders. In contrast, less research has been carried out that explicitly conceptualizes problems regarding gender-based leader stereotypes in terms of leader-follower relations. One such study is a theoretical paper by Eagly (2005) that focuses on the leader's role in representing followers' common values and discusses how gender stereotypes affect leader-follower relations. Another recent empirical study (Wolfram et al., 2007) investigated how (a) the gender match between leaders and followers and (b) followers' traditional gender role attitudes affected professional respect toward female and male leaders.

Eagly (2005) in her study focused on social groups which are outsiders in the leadership domain, including ethnic and religious minorities, members of low social classes and women. Eagly maintained that followers perceive leaders

from these groups to represent stereotypical values that are incompatible with values embedded in followers' shared identity in formal organizations. Because masculine culture commonly defines organizations, values implicit in female stereotypes are inconsistent with the values of the followers (i.e. the value inconsistency hypothesis). As a result, the followers perceive female leaders as incompetent to represent the followers' values; thus, female leaders face a difficult task to establish good leader-follower relations compared with male leaders.

Wolfram et al. (2007) examined followers' professional respect toward male and female leaders at the lowest level of organizational hierarchy in German organizations. The followers could either share or not share gender category with the leaders, resulting in four conditions (male leader–male follower; male leader–female follower, female leader–female follower and female leader–male follower). The researchers found that male followers showed significantly less respect toward female leaders compared with the respect female followers showed toward male leaders. The results confirmed the findings of previous research suggesting that males in general have negative attitudes toward female leaders (Eagly et al., 1992; Schein, 2001). Importantly, in Wolfram et al.'s study, male and female leaders received uneven respect from followers of the opposite gender, suggesting that male followers, relatively, did not show respect for female leaders, yet female leaders showed respect for male leaders. Wolfram et al. argued that male followers' attitudes indicated that in the female leader–male follower dyad, males' feared being dominated and having low status relative to females. Ryan et al. (2011) similarly asserted that the male in-group protects males' status by securing attractive, high status positions for male candidates while assigning females into precarious leadership roles. Finally, Wolfram et al also found that traditional gender role attitudes predicted less respect for female leaders than for male leaders.

In sum, Eagly (2005) argued and Wolfram et al. (2007) went on to demonstrate that followers play an important role in discrimination against female leaders. While Wolfram et al. (2007) focused on followers' gender category as a key variable alongside traditional gender role attitudes, Eagly

(2005) emphasized the role of shared organizational identity between the leaders and the followers. The two studies indicated different mechanisms underlying negative attitudes toward female leaders. Wolfram et al. (2007) pointed to the concern among men of losing their high status in the workplace, while the value inconsistency hypothesis discussed followers' concerns about female leaders' competence to represent the group's (i.e., organizational teams) values.

2.2.4 Gender-Based Stereotype Threat in the Leadership Domain

The incongruity between female stereotypes and leader roles can trigger fears in females of reinforcing women's lack of skills for leadership roles thus giving credence of one's unsuitability for such roles. For example, in response to TV commercials endorsing gender stereotypes, females indicated reduced aspiration to take on leadership roles, a result the researchers argued was due to stereotype threat (Davies et al., 2005). In the workplace, stereotype threat can be an ongoing concern, reducing the likelihood of achieving career goals, leading to lower job satisfaction and increasing intentions to quit (von Hippel et al., 2011). In coping with stereotype threat, studies found that female employees separated their gender identity and professional identity (von Hippel, Walsh and Zouroudis, 2010) and attempted to adopt a masculine communication style (von Hippel, Wiryakusama, Bowden and Shochet, 2011). Relating research demonstrated that successful female managers generally describe themselves in terms of masculine traits because any feminine self-definition might threaten career prospects, a phenomenon known as the queen-bee syndrome (Ellemers, van den Heuvel, De Gilder, Maass and Bonvini, 2004). The long-term implications of stereotype threat for females include dis-identification with the leadership domain and avoidance of leadership roles (Aronson and Inzlicht, 2004; Davies, Spencer, Quinn and Gerhardstein, 2002; Davies et al., 2005)

2.2.5 Integrating Theories of Stereotype Threat and Role Congruity

Based on research on the effects of gender on leader emergence and leader effectiveness (Eagly and Karau, 1991; Eagly et al., 1995; Eagly et al., 1992), role congruity theory emphasises that individuals' perceptions of female leaders are negatively affected by the incongruity of leader roles and female

stereotypes. One may approach role congruity theory as a perspective embedded in the social cognitive literature on stereotyping and discrimination (e.g., Fiske, 1998), suggesting that prejudice results from cognitive shortcuts that negatively bias information processing, inference making and judgments about female leaders. However, this understanding of prejudice was expanded by Eagly's theoretical paper (2005) that moved the emphasis from individual perceptions to how individuals, united as followers, respond to female leaders. Such emphasis implies that prejudice toward female leaders has a collective component related with followers' common motives and goals. Her study highlighted the challenge for female leaders to represent values of organizations defined by a masculine culture and to develop good relations with their followers. Additionally, males are more likely than females to have negative attitudes toward female leaders (Eagly et al., 1992; Schein, 2001; Wolfram et al., 2007), suggesting that besides a shared identity (e.g., team or organization), followers' gender category is an important predictor of prejudice toward female leaders.

Parallel to role congruity research, stereotype threat theory suggests that the incongruity between female roles and leadership contains a threat for females and this threat has a negative impact on how females perceive themselves in terms of leadership (Davies et al., 2005; Hoyt and Blascovich, 2007; von Hippel et al., 2010). Stereotype threat research is overwhelmingly dominated by studies that focus on factors that moderate or mediate stereotype threat effects on performance and self-perceptions, and such studies offer various strategies that females and members of other stereotyped groups should employ to cope with stereotype threat (Shapiro and Neuberg, 2007). Importantly, Shapiro and Neuberg suggest that individuals under stereotype threat are worried of confirming the stereotype in the eyes of in-group others. Such understanding implies that stereotype threat has negative consequences in terms of how other in-group members think and act toward the targeted person. Thus, there is a need in the stereotype threat research paradigm to explore the intra-group consequences of stereotypes threat, such as how people act toward the in-group member in response to stereotype threat. This question has particular relevance for the leadership domain because female

leaders are often targets of stereotype threat (e.g., von Hippel et al., 2011) and by definition, as leaders, they represent others as in-group (i.e. followers' shared team identity and as well females' gender category). Therefore, how the followers act toward female leaders in response to stereotype threat both theoretically and empirically proves to be an important question to study.

Role congruity theory (focusing on followers' perception of female leaders) and stereotype threat theory (focusing on threat and self-perceptions of female leaders) appear as distinct perspectives in the literature on gender stereotypes and leadership. However, both argue that gender-based leader stereotypes play an important role in the underrepresentation of females in the leadership domain. This thesis builds on this common point to integrate these two fields of research in the exploration of how followers might respond to their female leaders when gender-based stereotype threat is targeted toward females. Exploring this question contributes to the understanding of prejudice against female leaders in terms of leader-follower relations. As Eagly (2005) argues, representation is an important aspect of leadership, indicating that a relationship exists between the leaders and followers, a bond which implies that a threat to the leader could mean a threat to the followers. That is, as a result of stereotype threat, the followers may have concerns that their female leaders might fall short in representing their common values and performing on behalf of their followers. The following section reviews the social identity approach to examine the social identity basis of why followers may have such concerns.

2.3 The Social Identity Approach

This thesis draws upon the social identity theory of leadership to elaborate on followers' concerns that their female leaders' behaviour may confirm a negative female stereotype. The social identity theory of leadership (Hogg, 2001; Reicher et al., 2005) is built on social identity theory (Tajfel, 1978a; Tajfel and Turner, 1979, 1986) and self-categorization theory (Turner, 1985; Turner, Hogg, Oakes, Reicher and Wetherell, 1987; Turner, Oakes, Haslam and McGarty, 1994). Social identity theory focuses on attitudes and behaviours in terms of group membership, while self-categorization theory describes the cognitive mechanism of inter-group behaviour and attitudes. Numerous studies have considered these two perspectives as an integrated whole (Haslam, Oakes,

Reynolds and Turner, 1999; Hogg, 2001) referred to as the social identity approach.

To build an integrated approach of role congruity theory and stereotype threat theory, the thesis relies on the social identity approach that discusses multiple self-categories and the need for positive social identity. These two key aspects in the social identity analysis can explore (a) how stereotype threat directed toward the leader's gender may relate to the followers in terms of a shared identity, such as a team, and additionally, followers' gender category, and (b) why followers would worry that their leaders might confirm a negative gender stereotype.

2.3.1 Multiple Self-Categories

Social identity theory and self-categorization theory argue that multiple levels of inclusiveness exist (Tajfel and Turner, 1986; Turner, 1985; Turner et al., 1987; Turner et al., 1994). The lowest level of abstraction is the personal self; a higher level entails the social self; and the highest level of abstraction refers to being a human. Multiple self-categories imply that category salience can change, allowing individuals to define themselves differently in different contexts. In self-categorization processes individuals establish, by "depersonalization", an inclusive categorization of the self, resulting in perceiving oneself as categorically interchangeable with other in-group members of a particular social category. Under such conditions, individuals perceive the social world through the lens of the particular social category. In such a state of mind, attitudes, behaviour and self-definition are driven by the motives and goals of this salient social identity, referred to as self-stereotyping. Whereas the salience of personal identity is related to personal needs and goals, social identity salience implies motivation to achieve collective goals ((Haslam, 2004)Turner et al., 1987).

Turner and Oakes (1986) have identified three cognitive factors that impact on whether a particular collective self might be activated, including the perceiver's readiness, comparative fit and normative fit, with each having a unique impact on self-categorization and social identity salience. Perceiver's readiness refers to the individual's accessibility to categories, which is influenced by past experiences, current expectations, motives, values, goals

and needs. Such readiness to think and act in terms of group membership also relates to one's Identification with social groups, i.e. the more people identify with a group, the more readily they categorize themselves as members of that group. Comparative fit entails the meta-contrast ratio, which refers to the ratio of the average similarity of the individual to out-group members over the average similarity of the individual to in-group members, depending on context and frame of reference. Finally, normative fit refers to whether one's perceived behaviour fits the normative content of the category. The more these three factors characterize individuals, the more likely they would view the self as a group member and think and act in terms of group membership.

Self categorization processes assimilate others into group prototypes and thus accentuate similarities among people in the same category. At the same time, self-categorization highlights differences between people from different categories, which underpins stereotyping in the social identity approach (Haslam and Turner, 1992; Tajfel, 1969). Perceptually, the social world is segmented into in-groups and out-groups that are cognitively represented by group prototypes. Prototypes are context-specific attributes that define and prescribe attitudes and behaviours that characterize a particular social group and distinguish one group from others. Based on the meta-contrast principle in self-categorization, variance exists in terms of prototypicality – some group members might be perceived as less prototypical, whereas others are seen as more prototypical. Research suggests that social attraction is related with whether the others are perceived as being similar to the in-group prototype (Hogg, 1992).

Although individuals possess many self-categories such as gender, profession, ethnicity, social class, age-group, sport club membership, university and so on, not all of these categories are equally important for self-definition. In some social groups people view themselves as high-identifiers, while in other groups they be seen as low-identifiers (Tajfel and Turner, 1986). High-identifiers interpret the social world in a way that is consistent with the values and norms of the group – for them the group is valued, self-involving and contributes in large part to self-definition (Mael and Ashforth, 1992). Identification has an impact on a range of attitudes and behaviours that members of the group

express. In an organizational context, social identification predicts commitment and motivation to achieve collective goals and involvement in the activities of the organization (Ellemers et al., 2004; Haslam, 2004).

2.3.2 *The Need for Positive Social Identity*

Social identity theory emphasises positive distinctiveness in terms of group membership, a need which people establish by maintaining a positive self-concept (Tajfel and Turner, 1979). Since people define their self-concept based on social identity, they strive for positive social identity. People seek to enhance or protect the positive distinctiveness of the in-group relative to out-groups. Social identity theory maintains that people establish positive distinctiveness by competitive inter-group comparison in which group members aim to enhance positive social identity.

When inter-group comparison negatively reflects on the identity of the in-group, i.e. as identity threat, the individual uses various strategies to restore positive social identity (Branscombe et al., 1999). These strategies depend on how strongly one identifies with the group. In response to identity threat, low identifiers aim to avoid being categorized as members of the targeted group. Their strategies include dis-identification with the group, perceptions of in-group heterogeneity and stressing unique personal attributes. A further strategy includes advancing the self toward positively viewed groups (Haslam, 2004; Tajfel and Turner, 1979). Accordingly, in organizations which allow members from low-status groups to step into high-status territories, the individual may simply abandon the low status in-group and identify his/herself with the high-status out-group (Tajfel and Turner, 1979). A relevant example includes the queen bee syndrome, in which successful female managers define themselves in terms of masculine attributes because the traditional female definitions might threaten acceptance, status and career prospects (Ellemers et al., 2004).

High identifiers, on the other hand, aim to protect the positive distinctiveness of the group; therefore, their coping mechanisms are more collective in nature (Branscombe et al., 1999). Their strategies include out-group derogation, in-group favouritism, positive self-stereotyping, perceived in-group homogeneity and defensive reactions. Individuals can maintain positive distinctiveness by engaging in social creativity. This strategy includes finding

new dimensions of comparison or engaging in comparison with lower status groups (Breakwell, 1983). In these strategies stereotypes can play an important role (Haslam et al., 2002; Tajfel, 1981). People categorize members of out-groups (i.e. negative out-group stereotypes) or the self (i.e. self-stereotyping in terms of positive in-group stereotypes) in such a way that one's in-group positively compares with the out-group. Stereotypes create bonds within the group, thus individuals express derogatory out-group stereotypes to demonstrate loyalty and to ensure inclusion in a valued group (Noel, Wann and Branscombe, 1995; Pickett and Brewer, 2001). When boundaries are closed for low status groups, individuals may engage in a strategy referred to as *social competition* to directly challenge the status quo (Haslam, 2004; Tajfel, 1978a). Feminist movements and women unions imply a sense of social competition because these groups aim to improve women's status relative to men.

2.3.3 *Social Identity Theory of Leadership*

The social identity theory of leadership proposes that leaders need to assume the prototypical norms and values of their groups in order to receive followers' approval for leadership (Hogg, 2001; Reicher et al., 2005; van Knippenberg and Hogg, 2003). Hogg et al. (1998) showed that the more followers identified with their groups, the more they evaluated their leader's effectiveness based on prototypicality. Their research also demonstrated that leaders become more persuasive when their arguments reflect the prototypical consensus of the followers. Based on the need for positive social identity, researchers argue that followers prefer leaders who positively differentiate their shared identity from relevant out-groups (Haslam, 2004; Hogg et al., 1998; Turner and Haslam, 2000).

Many approaches to leadership maintain that success in leadership is the product of good quality relations between leaders and followers (Burns, 1978; Eagly, 2005; House, 1971; Kellerman, 2007, 2008, 2012; Lord et al., 1982) and successful leadership rests on legitimacy – the authority that followers grant to leaders to assume power, make decisions for the group and lead the group in novel directions (Hollander, 1995). Leaders without the followers will not achieve collective goals (Eagly, 2005; Kellerman, 2008). To be effective, leaders need good relations with highly engaged followers who can initiate

leadership and change on their own (Kellerman, 2008). These followers are “investing time and energy in making informed judgements about who their leaders are and what they espouse and then take appropriate action to either support or challenge them” (Kellerman, 2007, p. 91). The social identity theory of leadership contributes to the leader-follower relations perspective by emphasizing that followers expect their leaders to positively reflect on their shared identity, such as an organization, or an organizational team. This expectation is based on followers’ need for a positive social identity to maintain a positive self-concept.

2.3.4 The Thesis’s Integrated Approach in Light of the Social Identity Analysis

This thesis emphasizes two points in the social identity analysis that are relevant to the integration of role congruity theory and stereotype threat theory. First, the social identity approach suggests that people are motivated to be seen positively, thus they strive for a positive social identity that enables them to maintain a positive self-concept. Based on the need for positive distinctiveness, the social identity theory of leadership argues that followers expect their leaders to positively reflect on their followers. The present thesis draws upon the notion of the need for positive identity to examine the implications of stereotype threat directed at the leader’s gender for the followers. Accordingly, stereotype threat directed toward the leader’s gender may trigger concerns in the followers that the leader might prove herself incompetent to positively contribute to followers’ shared team identity.

Second, the social identity approach maintains that people possess multiple self-categories and the way individuals define themselves depends on the context, individual goals, motives and the importance of the group to the self. That is, people in one context may define themselves based on their gender, but in another context based on a shared team identity uniting males and females. One may argue that gender stereotype threat triggers self-categorization based on gender category in parallel to their shared team identity. Thus, the followers may view the leader as not only a representative of their shared team identity, but also gender category. The integration of role congruity theory, stereotype threat theory and the social identity approach

suggests that stereotype threat directed toward the leader's gender may mean a threat to followers' shared team identity and to followers sharing gender category with the leader. The integrated approach implies the need to explore how followers would act toward their leaders in situations of such threat. The following section discusses research on stereotype threat as collective threat (Cohen and Garcia, 2005), a study that examined the behavioural and attitudinal consequences of the fear that one group member might reinforce a negative group stereotype.

2.4 Stereotype Threat as Collective Threat

Cohen and Garcia (2005) investigated collective threat triggered by an in-group member's potential poor performance on a stereotype-relevant task. The research relied on the notion that (a) in-group members share the distress of stigmatization of other in-group members and (b) being negatively viewed because of one's group membership threatens self-worth (Branscombe et al., 1999; Ethier and Deaux, 1994; Mendoza-Denton, Downey, Purdie, Davis and Pietrzak, 2002; Vorauer, Main and O'Connell, 1998). Individuals derive identity and self-worth from group membership, hence how in-group others are viewed affects one's self-esteem. As people experience increased self-esteem when fellow in-group members succeed (Bernhardt, Dabbs, Fielden and Lutter, 1998; Cialdini et al., 1976), they can also experience guilt when other in-group members do wrong (Doosje, Branscombe, Spears and Manstead, 1999). Based on these researches, Cohen and Garcia (2005) argued that group members should worry that the stereotype-confirming behaviour of one individual might reinforce a negative view of the group as a whole, resulting in collective threat.

In their pilot study, Cohen and Garcia (2005) found that minority students worried more than white American students that people would draw conclusions about the student's racial group based on how others who shared the student's race performed. The researchers concluded that collective threat in terms of education was relevant to minority students, hence one sample group in each of their following two experiments included African Americans. Because women face negative stereotypes in intellectual domains, in a third experiment the participants were females.

The experiments tested how groups cope with collective threat in terms of attitudes toward the group and toward the specific person who potentially discredited the group. In each study, participants were randomly assigned into 'collective threat' and 'control' conditions. In the collective threat condition, African Americans observed a peer of the same ethnicity, and female participants observed a peer of the same gender, taking an advanced verbal or mathematics test. The in-group member was a confederate of the researchers. To reinforce collective threat, the confederate indicated that the test was difficult and that it was challenging his/her abilities. The two samples received different test scenarios because African Americans face negative stereotypes for lack of verbal skills, while women are negatively stereotyped in mathematics in the USA. To establish a control condition, in the first and third experiments participants observed a person completing simple verbal puzzles, considered as a stereotype-irrelevant task. The second experiment used an additional control condition in which the confederate had a different racial background.

The dependent variables across the studies measured the implications of collective threat for the self, for attitudes toward the group, and for attitudes toward the person in the stereotype threat situation. The dependent measures included: (1) state of self-esteem and self-efficacy; (2) readiness to enter a stereotype-threatening situation; (3) verbal test in the second experiment; (4) stereotype suppression indicated by a word completion test; (5) distancing from the stereotyped image of the group, indicated by a self-report; and (6) distancing from the in-group member indicated by seating distance and imitating behaviour in sharing a biscuit with him/her. Only the first and third experiments used the measure for distancing. This measure is particularly important in the present thesis for assessing attitudes and behaviour toward the in-group member.

Results for the African American samples. The studies showed that observing a same-race peer in stereotype threat triggered collective threat and resulted in the postulated effects of stereotype threat, such as reduced test performance. In Study 2, the main effect of condition on test performance was significant; the scores were lower under threat than in the control condition. The main effect of condition on seating distance was also significant: in the collective threat

condition, participants sat further from the confederate than in the control condition. Although the interaction of racial identification and condition on seating distance was not significant, only moderately identified participants sat further from the in-group member under threat relative to the control condition.

The interaction of racial identification and condition was significant on the rest of the outcome measures. For low identifiers, self-esteem was lower under stereotype threat than in the control condition, while for high identifiers, under threat self-esteem was higher or was not different from the control condition. Low identifiers also self-stereotyped less under threat than in the control condition, while for high identifiers the reverse occurred in terms of positive and neutral traits of African American identity. Low identifiers under collective threat were less willing to take the test than in the control condition, whereas high identifiers showed the opposite trend.

Cohen and Garcia (2005) argued that the results implied that African American participants chose two distinct strategies to cope with collective threat. Low racial identifiers indicated social identity avoidance in which they downplayed the relevance of racial identity in the face of threat. These participants distanced themselves from the stereotypical image of the group, mentally suppressed the stereotype and distanced themselves from the in-group member. On the other hand, high racial identifiers leaned toward social identity affirmation in the face of collective threat. These participants embraced the non-negative stereotypical qualities of the group, maintained positive and neutral stereotypical thoughts of the group and showed no distancing from the stereotypical image of the group – again, in positive and neutral terms. Importantly, high racial identifiers showed no distancing from the in-group member under threat compared with the control condition.

Results for the female sample. The main effect of condition on both measures of distancing (i.e. seating distance and imitating behaviour) was significant. Participants sat further from the in-group member under stereotype threat than in the control condition and in addition, under collective threat, participants imitated them less than in the control condition. The main effect of condition was significant on self-efficacy and stated self-esteem. On both measures the scores were lower in the collective threat condition than in the control condition.

Condition had a significant main effect on stereotype distancing; under collective threat, participants self-stereotyped more than in the control condition in terms of positive and neutral characteristics of female identity. Identification with gender did not moderate the effects of collective threat, though the authors argued that statistical power was insufficient due to low sample size ($n=32$) compared with samples in the first two studies.

In contrast to females and high racial identifiers, low racial identifier African Americans distanced themselves from the stereotypical characteristics of the group including positive and neutral traits. The researchers suggested that while women are positively stereotyped in several dimensions, such as for their interpersonal skills (Glick and Fiske, 2001), the risk of being viewed as typical is greater for African Americans. Therefore, to express commitment with one's social identity in response to collective threat might require a greater level of identification.

2.4.1 Attitudes toward the In-group Member in Response to Stereotype Threat

First, the results showed that low identifier African-Americans and female participants distanced themselves from the in-group member under stereotype threat relative to the no-threat condition. The researchers argued that such distancing resembles the rejection of individuals as part of the black sheep effect (Biernat et al., 1999; Marques and Paez, 1994; Marques, Yzerbyt and Leyens, 1988). Groups symbolically devalue poor performers and disloyal members for violating favourable in-group judgement standards, especially when deviance threatens group identity (Marques, Abrams and Serodio, 2001) and when the evaluators strongly identify with the group (Branscombe et al., 1993; Oishi and Yoshida, 2002).

Second, while Oishi and Yoshida (2002) and Branscombe et al. (1993) demonstrated that high identifiers rejected in-group members who negatively reflect on group identity, Cohen and Garcia (2005) found that high racial identifiers showed some, though limited, evidence for solidarity. Whereas low racial identifiers distanced themselves from the confederate in the collective threat condition relative to the control condition, high identifiers did not. This result does not indicate that collective threat positively affected the attitudes of

high racial identifiers toward the in-group member. It does, however, indicate that high racial identifiers did not distance themselves from the in-group member as low identifiers did. Among females, there was no evidence for solidarity and identification with the group did not moderate the effects of stereotype threat on female participants' attitudes toward the in-group member. Overall, female participants, regardless of the strength of their identification with gender, distanced themselves from the in-group member in response to collective threat compared to the control condition.

2.5 Overview of the Thesis

The final section in the literature review summarizes the integrated approach put forward in this chapter and discusses the implications of Cohen and Garcia's study (2005) for the present thesis. This review contains two subsections. The first summarizes the rationale for integrating the theories and the second summarizes the empirical chapters that explore the research questions formulated in Chapter 1.

2.5.1 Summary of the Integrated Theoretical Approach

The thesis integrates role congruity theory (Eagly and Karau, 2002) and stereotype threat theory applied to gender and leadership research (Davies et al., 2005), drawing upon the social identity approach (Tajfel, 1978a; Tajfel and Turner, 1979), its application to leadership (e.g., Reicher et al., 2005) and collective threat research (Cohen and Garcia, 2005). This integration provides the theoretical basis in the thesis to empirically explore followers' attitudes toward their leaders in response to stereotype threat directed toward the leader's gender. The thesis is built on research that demonstrated that people *in general* – but particularly males – have less favourable attitudes towards female than male leaders (Eagly and Karau, 1991, 2002; Eagly et al., 1995; Eagly et al., 1992; Haslam and Ryan, 2008). Expanding research that addressed prejudice toward female leaders in terms of leader-follower relations (Eagly, 2005; Wolfram et al., 2007), the integrated approach applied in this thesis draws attention to leader-follower dynamics embedded in group processes. This approach in the thesis allows the exploration of followers' attitudes toward a female leader not only as a function of (a) her gender and the associated

female stereotypes, but additionally (b) her role as a representative of the followers based upon a shared team identity and gender category. Therefore, the present thesis contributes to the understanding of prejudice against female leaders by accounting for the representation aspect of leadership in examining the implications of gender-based leader stereotypes (i.e. stereotype threat) on followers' attitudes.

Besides emphasizing representation, this thesis draws further attention to the threatening aspect of gender-based leadership stereotypes. Research has demonstrated that the incongruity between leader roles and female stereotypes can be a source of threat for female leaders (e.g., Davies et al., 2005). This thesis explores the significance of this threat for the followers in light of the social identity analysis that suggests that followers prefer leaders who positively reflect on them relative to others (i.e. out-groups). Based on the notion of multiple self-categories (Tajfel and Turner, 1986) and the need for positive social identity (Tajfel and Turner, 1979), a threat to the leader's gender may entail a collective threat to the followers' shared team identity and gender category. Such threats may emerge because people's positive sense of self is affected by how in-group others are perceived to reflect on the group (e.g., Branscombe et al., 1999). For example, when in-group others are positively evaluated, people feel pride, and when in-group others are viewed negatively, people feel ashamed.

Cohen and Garcia's (2005) study investigated how groups respond to in-group members in situations of stereotype threat. Their study provides insights into how followers may act toward their leaders in response to stereotype threat. The researchers highlighted that the mere possibility of confirming the negative stereotype was sufficient to trigger a similar reaction to that observed in the actual behaviour of deviates, part of the black sheep effect (Marques and Paez, 1994; Marques et al., 1988). Cohen and Garcia found evidence for distancing and some limited evidence for solidarity. This thesis transfers these findings to leadership and examines how followers would act toward their leaders when stereotype threat applies to the leader's gender. Distancing implies that followers would have negative attitudes toward and may dissociate themselves from the leader. On the other hand, solidarity implies that followers would

endorse the leader's position in the group. Thus, distancing and solidarity as responses to stereotype threat have implications for the quality of leader-follower relations.

Cohen and Garcia's study (2005), however, differed from the present thesis in two ways. First, this thesis focuses on the simultaneous representation of a shared team identity and gender category, which may imply different mechanisms of collective threat compared with Cohen and Garcia's study in a single identity context (i.e. either female or African American). Second, in collective threat, attitudes toward leaders might differ from attitudes toward non-leader group members due to the leader's status, influence and resources. The leader's prestige might command obedience and respect in the followers, rather than distancing. On the other hand, the leader's role as the representative of social identity and followers' expectations for positive representation might increase distancing compared with non-leader group members.

2.5.2 Outline of the Empirical Studies

Based on the integrated theoretical approach and research questions proposed in Chapter 1, the research programme aims to address, through four experiments, the following points with regard to methods, design, procedures and measures:

(1) To contribute to previous research on the effects of gender stereotypes on followers' attitudes toward leaders, the thesis aims to account for the common bond between the leaders and followers as a shared team identity, for shared gender category and for the leader's role to represent these two forms of identity. The experiments in this research programme rely on mixed-sex or single-sex teams in which one team member (either a male or a female) acts as the leader, a context which allows an elaboration on the leader's role as a representative of shared team identity and gender category. The experiments draw upon on Cohen and Garcia's (2005) assumption that suggests that collective threat arises because the in-group member's potential poor performance is seen as representative of the group. To enhance the meaningfulness of representation, in each experiment in the present research programme the leaders perform on behalf of their followers, a task that has consequences for the evaluation of the team as a whole. Further, prior to the

experimental manipulations, the experimental design allows team identity to develop by requesting team members to work on various tasks together. Importantly, while Cohen and Garcia used trained confederates as targets, this research programme focuses on followers' attitudes toward their actual leaders, a method that enhances the extent to which the thesis can be generalized for actual organizational context.

(2) This thesis aims to further contribute to research on followers' attitudes toward their female leaders by elaborating on the role of stereotype threat. In line with stereotype threat research, the studies in this thesis involve experimental manipulations with followers reading gender-based stereotype threat information prior to rating the leaders' performances. Three of the studies include manipulations for both males and females to allow testing of whether followers would act differently or similarly toward male and female leaders in response to stereotype threat. The studies compare followers' attitudes when the leaders' genders are under stereotype threat with attitudes when the leaders' genders are not threatened. Because stereotype threat to one gender category implies stereotype advantage to the opposite gender, the research programme explores various comparative conditions, including stereotype advantage, no-threat and control. The stereotype threat manipulations aim to trigger collective threat i.e., followers' concerns that their leaders may confirm a negative gender stereotype in performance. In contrast, in the stereotype advantage conditions the manipulations aim to make followers think that their leader's gender would benefit performance.

(3) The thesis aims to empirically test followers' attitudes and their relationship with their leaders in response to stereotype threat. To assess such attitudes, the experiments contain measures for (a) followers' ratings of leaders' performances and (b) leader-follower proximity, a measure constructed in the thesis to assess relationship-based distancing from/solidarity with the leader. The performance measures throughout the four studies either assess actual performance or predicted performance. Based on the social identity approach (e.g., Hogg et al., 1998), the relationship measure indicates how prototypical followers perceive their leaders, whether followers identify with the leader and, based on the study of Cohen and Garcia (2005), whether followers experience

collective threat. High levels of the first two measures and low levels in the last measure would indicate good relations.

(4) To further elaborate on the implications of team identity and gender category, the experiments examine the implications of identification with these two forms of identities on attitudes toward leaders in response to stereotype threat. Based on research arguing that social identification moderates strategies to maintain positive distinctiveness in the face of identity threat (Branscombe et al., 1999; Oishi and Yoshida, 2002), the studies in this research programme use gender identification and team identification as moderators of stereotype threat effects on followers' attitudes toward their leaders.

The empirical chapters contain the following four experiments with the aim of obtaining insights into the research questions raised in Chapter 1.

Study 1 (Chapter 3) investigates leader performance ratings in the context of stereotypes favouring males, implying stereotype threat for females, a context which researchers argue dominates the work place (Eagly and Karau, 2002; von Hippel et al., 2011). In Study 3, in such circumstances (i.e. when gender stereotypes favouring males are made salient), mixed-sex teams evaluate the presentation communication skills of their male leaders (stereotype advantage) or female leaders (stereotype threat) in the context of undergraduate in-class presentations. Study 1 examines the implications of team identity and followers' gender category on leader performance ratings.

Study 2 (Chapter 4) expands the manipulations for males to examine whether male and female leaders would receive similar or different ratings from their followers. In a similar undergraduate presentation context as in Study 1, Study 2 is testing how followers in mixed-gender teams rate the leaders when their leader's gender are under threat compared to when it is advantaged.

Study 3 (Chapter 5), using an undergraduate sample, switches the leader's task from presentations to a committee meeting in which the leaders argue in favour of their own teams, a task that is more representative of leader roles in organizations than the in-class presentations in Studies 1 and 2. Further, Study 3 specifically focuses on sharing gender category with the leader under stereotype threat, thus, the Study 3 uses single-sex teams. The post-test measures assess predicted performance in the committee meeting, the

relationship between the leader and followers, including the leader's perceived prototypicality, identification with the leader, and collective threat. Additionally, Study 3 assesses followers' self-efficacy for leadership. The followers complete the ratings in stereotype threat versus no-threat conditions.

Study 4 (Chapter 6) expands the research programme from undergraduate student samples to a corporate sample. In an online experiment, employees of corporations select an effective leader from their professional work life and provide ratings for the effectiveness of this leader in representing the team in a hypothetical company meeting with executives in two conditions of stereotype threat versus control. In addition to the dependent variables used in Study 3, the post-test measures include text responses to the manipulations, perceived skills and feelings about the leader's performance.

Chapter 3 Study 1

3.1 *Introduction*

Eagly and Karau (2002) argues that leadership roles are incongruent with female stereotypes and are congruent with male stereotypes, as a result of which people have less favourable attitudes toward female leaders than toward male leaders. Further, such incongruity between female stereotypes and leader roles can trigger stereotype threat for females (Davies et al., 2002; von Hippel et al., 2011). Study 1, in this research programme, mimicked the positive stereotyping of males compared with females in the workplace, a circumstance which implies stereotype threat for females. Additionally, Study 1 accounted for the implications of a shared team identity and gender category between the leader and the followers. Followers rated the performances of their female leaders (stereotype threat) and male leaders (stereotype advantage) as part of undergraduate in-class presentations. Prior to the leaders' performances, followers (but not the leaders) received experimental manipulations which proposed that males have better presentation communication skills than females and that males in general outperform females in leadership roles. The manipulations aimed to imply an advantage for followers with male leaders and to trigger concerns in followers with female leaders that the leader may perform poorly. Study 1 examined how the combination of stereotype salience, shared team identity and followers' gender category affected followers' attitudes toward their leaders.

Cohen and Garcia (2005) argued that the fear that one in-group member potentially reinforces a negative group stereotype triggers collective threat. Their study showed that in response to such threat, groups (females and African Americans) distanced themselves from the in-group member. Their research found some limited evidence for solidarity. In Cohen and Garcia's study, collective threat resulted from the confederate's membership with a stereotyped group (females or African Americans) and the stereotyped performance situation (advanced math and verbal tests, respectively). In comparison with Cohen and Garcia's research, Study 1 in this research programme manipulated participants' view of presentation communication skills as a gender- stereotyped domain. In line with Cohen and Garcia's study, Study 1 investigated if followers

downgrade the performance of female leaders (stereotype threat) compared with male leaders (stereotype advantage), which would indicate distancing from female leaders. On the other hand, followers may evaluate female leaders favourably relative to male leaders, which would indicate solidarity.

Study 1 used mixed-gender teams (4–5 individuals), which allowed an exploration of how followers' gender and team identities affected leader performance ratings. Based on multiple self-categories (Tajfel and Turner, 1986) and the need for positive social identity (Tajfel and Turner, 1979), (a) followers as members of the team may worry that the leader's performance might negatively reflect on team identity and (b) female followers may worry that the leader might reinforce a negative view of females. A special circumstance emerges when stereotype threat applies to a female leader of male followers because the negative view of the leader would imply stereotype advantage for the followers. Although male followers would be advantaged in terms of gender category, they may have concerns that the leader might poorly perform due to being a female, and they may view that such performance would negatively reflect on the team.

Further, Study 1 tested what roles team identification and gender identification played in the ratings. Social identification implies that the individual has an enhanced need for positive distinctiveness (Branscombe et al., 1999; Branscombe et al., 1993; Oishi and Yoshida, 2002; Tajfel, 1982), which suggests that high identifiers would react differently from low identifiers to their leader potentially confirming a negative stereotype. Study 1 thus contributes to leadership and gender research by addressing the implications of a shared team identity, gender category and social identification in a context that is explicitly advantageous for males, implying stereotype threat for females.

3.2 Aims of Exploration and Testing

First, in the context of gender stereotypes favouring males, Study 1 tested whether followers rated the performance of male or female leaders differently. Second, Study 1 tested the leader's and the follower's gender interaction to examine how sharing a gender category with the leader affected the ratings. This analysis tested for differences between male and female followers in the ratings for male and female leaders. Third, Study 1 examined the moderating

role of gender identification and team identification to test how the strength of such identifications impacted on leader ratings.

3.3 Method

3.3.1 Participants

Eighty-seven undergraduate students in a leadership module formed 23 mixed-gender teams of four to five persons to act as independent consulting companies. The teams represented the ratio of UK home students and international students in the class (50:50) and the mean age was 21. The data analysis relied on leader ratings obtained from the followers ($N=64$). Students participated in the study as part of in-class experiential learning.

3.3.2 Design

The analysis was based on a 2 x 2 experimental design (leader gender: female or male) x (follower gender: female or male). All those participating as followers received information that males are better communicators than females. That is, in terms of followers' gender category, all female followers were in a stereotype threat condition and all male followers were in a stereotype advantage condition (Table 3.1). In terms of team identity, threat was related to the information followers received about their leader's gender. That is, in terms of team identity, followers with female leaders were in the threat condition and followers with male leaders were in the advantage condition. Thus, while all female followers faced threat in terms of gender category, female followers with male leaders had an advantage in terms of team identity. On the other hand, male followers with female leaders faced a threat in terms of team identity, and with male leaders had a further advantage in terms of team identity.

Table 3.1

Condition by Follower Gender and Leader Gender (N=64)

Leader gender	Follower gender	Leader gender info	Follower condition	n
Female	Female	Threat	Threat	15
Female	Male	Threat	Advantage	19
Male	Female	Advantage	Threat	17
Male	Male	Advantage	Advantage	13

3.3.3 Procedure

In this 11-week module, teams worked as hypothetical business organizations on several tasks, such as creating a company logo. For each task the teams chose a different leader to represent them. In the eighth week for the final task the teams prepared material that the leader presented in-class. As part of Study 1, the participants evaluated the leaders' performances as presenters. The team members spent three months together, which allowed team cohesion to develop, making the leaders' role as representatives of their followers meaningful.

All participants took part in the presentations in a two-hour session, the leaders as presenters and team members (the followers) as the audience. Prior to the presentations, the followers received a presentation evaluation booklet, which included the pre-test measures, experimental manipulations and post-test measures. At the beginning of the booklet, the participants answered questions that assessed gender and team identification.

Stereotype threat manipulations. The manipulations included a specific challenge relating to the way people use negative stereotypes. In recent years, negatively stereotyped groups face discrimination in subtle rather than in explicit ways (e.g., Rooth and Agerström, 2009). Accordingly, the manipulations avoided derogatory statements about females, while at the same time implied a negative view of them compared to males. The manipulations emphasized the advantages of males in presentation skills based on innate/nurtured stereotypic attributes relating to males' status achievement activities from early life on.

Drawing attention to males' advantages implicitly affirmed a negative view of women, interpreted as stereotype threat.

The participants read an abstract which contained the stereotype threat manipulation. Pilot testing indicated that (a) the abstract was short thus students would not be overwhelmed by reading it, and (b) it contained simple language hence students (especially international students) would have no difficulty in understanding its content. Further, the experimenter requested complete silence and full participation to ensure that students would engage with maximum attention while reading the abstract. To increase legitimacy, the manipulation included bogus scientific references and bogus prior research at Exeter University. The leaders and followers were seated separately to ensure that the leaders would not learn the information handed to the followers. The participants read the following:

Presentation skills have been studied at various universities throughout the world. They have shown that men generally are better presenters than women. Research at the University of Exeter has confirmed that approximately 80% of male students are better communicators than female students. In previous years we have found this to be true in our leadership modules. This gender difference has its roots early in life. Boys focus on status achievement activities which lead them to develop a goal oriented communication style (Spencer, J, 2003, for example). They become assertive, direct, and they get straight to the point. These qualities support communication skills that make most males become better presenters than females.

In order to reinforce the manipulations, the participants listed the names of three male individuals who possessed these stereotypical characteristics. Next, the presentations began. Participants evaluated their own leaders and one leader of their choice from any of the other teams to ensure that the ratings represented an inter-group context. Each team leader presented for five minutes and followers completed their ratings for each presentation in one minute. To keep the gender of the leader salient while completing the ratings, the participants indicated the gender of the leader at the top of the evaluation form. Finally, students received a debriefing as part of a lecture on stereotypes

and leader perception, followed by a group discussion about the students' experiences in the study. As part of an ethical procedure, the participants had the option to withdraw their answers. No participant indicated that they wished to withdraw their completed questionnaires.

3.4 Measures

3.4.1 Pre-test measures

All the questions were in the form of 7-point Likert scales, with answer choices ranging from "Not at all" to "Extremely." Appendix 1 displays the question items for team and gender identification.

Team identification. The team identification measure consisted of eight items taken from four established scales of social identification. Four items focused on the affective component of team identification, such as one's feelings when the team is criticized or praised (Mael and Ashforth, 1992). For example, one item was "When someone praises my team, it feels like a personal compliment". One item taken from two scales concentrated on the cognitive aspects of identification (Haslam et al., 1999; Karasawa, 1991). An example item was "I have a number of qualities typical of other members in my team". The final two items taken from the scale of Doosje, Ellemers and Spears (1995) focused on how participants felt about being members of their teams and how they felt toward other group members. One item was "I identify with other members of my team". The average of the eight items formed a composite measure ($\alpha=.78$); no item indicated too low a level of influence on the reliability of the scale. High scores indicated strong identification with the team.

Gender identification. Five items measured gender identification, taken from the scales of Mael and Ashforth (1992) and Doosje et al (1995). An example item included "I identify with other members of my gender". The average of the five items formed a reliable measure ($\alpha=.72$); high scores indicated strong identification with gender.

3.4.2 Post-test measures

Leader Performance. The performance measure included items based on the training material of various consulting companies offering courses in

communication and presentation skills. Three items in the manipulations corresponded to stereotypical qualities of males, grouped under *confidence*: assertiveness, getting straight to the point and directness (Tannen, 2007). Three items corresponded to clarity, referred to as *verbal skills*: good vocabulary, appropriate words and clearness. Three items measured *lack of confidence*: uncertainty, hesitation and insecurity. Three items measured *non-verbal skills*: eye contact, appropriate facial expressions and posture. Three final items measured persuasion, effectiveness and being a good communicator. After recoding the items for lack of confidence, the average of the fifteen items formed a composite measure of performance ratings ($\alpha=.88$) with no item indicating too weak an influence on the overall reliability of the scale. High scores indicated favourable evaluations of the leader's performance.

3.5 Results

3.5.1 Preliminary analysis

Gender identification and team identification by leader and follower genders.

The preliminary analysis partly tested whether followers' gender related to gender identification and to team identification. Independent sample t-tests compared male and female followers in terms of gender identification and team identification. For gender identification, the difference between female ($M=4.70$, $SD=1.18$) and male followers ($M=4.35$, $SD=1.01$) was not significant, $t(63) = 1.28$, $p=.21$. For team identification, the difference between female ($M=5.60$, $SD=.67$) and male followers ($M=5.50$, $SD=.75$) was not significant, $t(64) = .52$, $p=.61$. Therefore, leader and follower genders did not relate to team identification and gender identification.

Ratings for the in-group versus the out-group leader. A paired sample t-test compared the ratings for followers' own team leader with ratings for another team's leader. The ratings for followers' own team leaders ($M=5.67$, $SD=.78$) were significantly higher than for another team's leader ($M=5.23$, $SD=.84$), $t(60) = 3.39$, $p = .001$. These results implied in-group bias, which plays a role in maintaining positive distinctiveness in the social identity approach (Tajfel and Turner, 1986). Further, this test suggests that participants viewed their team

identity as meaningful, which confirmed that the teams proved viable to explore the representation aspect of leader-follower relations.

Correlation of pre-test measures. Team identification ($M = 5.66$, $SD = .72$) non-significantly correlated with gender identification ($M = 4.53$, $SD = 1.11$), ($r = .21$, $p > .05$), indicating that these two measures were distinct as they assessed different forms of social identity.

3.5.2 Hierarchical Regression Analysis

The analysis included two, three-step hierarchical regressions (one for each moderator) on the ratings for leader performance. The first step tested the main effects of the leader's gender, the follower's gender and the moderators. The second step tested the interaction between leader and follower genders to examine how sharing a gender category with the leader affected the ratings. The second step also contained the remaining two-way interactions, and the third step tested the three-way interaction. Overall, the hierarchical regression analysis examined whether male and female followers differentially evaluated their male leaders (stereotype advantage) and female leaders (stereotype threat) and how gender and team identifications moderated the ratings. The analysis relied on centred scores for team identification and gender identification. The codes for leader and follower genders were -1 for females and +1 for males. The interaction terms corresponded to the products of the variables.

3.5.2.1 Gender Identification.

The main effects of the leader's gender, the follower's gender and gender identification, as well as the two- and three-way interactions, were not significant (see Appendix 2). Identification with gender had no impact on the ratings either as a main effect or as a moderator.

3.5.2.2 Team Identification.

The variables in the first step marginally increased the explained variance (Table 3.2). Team identification had a significant unique contribution to the model. The stronger the followers identified with their teams, the more favourably they evaluated the leaders. The main effects of followers' gender and the leader's gender were not significant. The latter result suggests that in the

context of gender stereotypes favouring males, followers rated female leaders (threat) and male leaders (advantage) similarly. In the second step, the interaction between follower gender and leader gender was not significant. The interaction between the leader's gender and team identification made a marginally significant contribution to the model. This interaction was graphed (Figure 3.1) and a simple slope analysis (Aiken and West, 1991) indicated that the leader's gender marginally related to the ratings for high team identifiers, $\beta = -.38$, $t = 1.80$, $p = .077$, but not for low identifiers, $\beta = -.16$, $t = .74$, $p = .46$. Therefore, high team identifiers evaluated female leaders marginally less favourably than male leaders. The third step was not significant, suggesting that team identification did not moderate how male and female followers evaluated male and female leaders.

Table 3.2

Hierarchical Regression Predicting Leader Performance Ratings (N=62)¹

Step	Variables	R^2	R^2 change	$\beta 1$	$\beta 2$	$\beta 3$
1	Leader gender	.12	.12	.13	.20	.20
		p=.059	p=.059			
	Follower gender			.10	.19	.18
	Team identification			.33*	.33*	.34*
2	Leader gender*	.19	.07		.16	.16
	Follower gender					
	Leader gender*				.25	.24
	Team identification				p=.06	p=.065
	Follower gender*				.14	.15
	Team identification					
3	Leader gender*	.19	.00			-.05
	Follower gender*					
	Team identification					

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

¹ The analysis excluded two male participants with male leaders as outliers with studentized residuals of -3.10 and -2.73 and Cook's distance of .24 and .09.. They respectively exceeded the critical value of Cook's distance of .06 for n= 64, computed by 4/n-1. With the inclusion of these cases the unique contribution of team identification remained significant; the interaction between leader's gender*team identification was not significant.

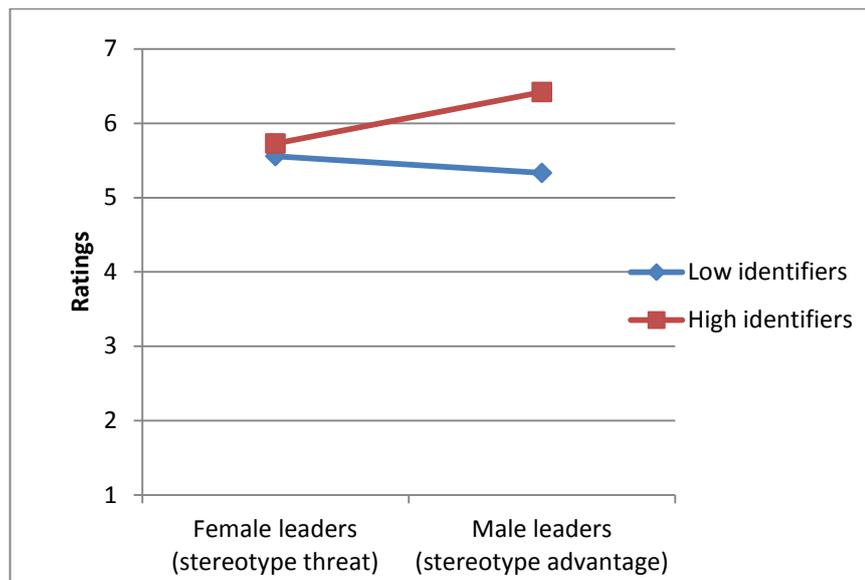


Figure 3.1. Interaction between leader gender and team identification in terms of leader performance ratings.

3.6 Discussion

Study 1 experimentally mimicked workplace circumstances, i.e. a context in which people generally view male leaders more favourably compared to female leaders in terms of gender stereotypes (Eagly and Karau, 2002). In such a context, Study 1 investigated the implications of a shared team identity and gender category on leader performance ratings. The results showed that male and female followers evaluated their male and female leaders' performances similarly. In addition, the leader's gender and the follower's gender interaction was not significant, which suggests that sharing (or not sharing) a gender category with the leader had no impact on the ratings. Team identification, however, did play a role in the ratings. High identifiers rated their leaders' presentations higher than low identifiers. Moreover, there was some evidence that leader's gender moderated the impact of team identification on the ratings. While male leaders benefitted from the ratings of high identifiers, such benefit cancelled out when the leaders were females. In contrast to team identification, gender identification did not have an impact on the ratings, either as a main effect or in interaction with the other variables.

In line with Cohen and Garcia's study (2005), one may interpret high team identifiers' lower ratings for female leaders compared with male leaders as

motivated by the desire to create distance from female leaders. Based on these perspectives, this distancing serves the aim of establishing a positive team identity. Because the manipulations advantaged males, male leaders as a source of positive identity received followers' approval compared with the lower ratings for female leaders. The results corresponded with the findings of previous research (Branscombe et al., 1993; Oishi and Yoshida, 2002) that suggested that as part of symbolic exclusion, high group identifiers devalue individuals who violate positive group norms. Based on the study of Cohen and Garcia (2005), high team identifier followers' reaction to stereotype threat resembles the rejection of in-group members as part of the black sheep effect. An alternative explanation suggests that given that one's in-group is a source of pride for high identifiers, receiving information that positively relates to one's leader triggered positive ratings for male leaders relative to female leaders.

The results did not confirm the solidarity hypothesis proposing that high identifiers under various sources of identity threat show commitment toward other group members (Branscombe et al., 1999), i.e., followers did not rate female leaders favourably relative to male leaders. Importantly, male followers did not downgrade female leaders as one may expect based on the findings of previous research (Eagly et al., 1992; Wolfram et al., 2007). Study 1 accentuated a shared team identity, made gender-based stereotypes salient and created a context in which the leaders performed on behalf of their teams. These factors at least partially explain why the results in Study 1 differed from previous studies, beyond other apparent factors such as the type of sample (workplace versus undergraduates) and the nature of the task (work place performance versus in-class undergraduate presentation).

Study 1 examined leader ratings in the context of the real nature of gender stereotypes in the workplace (i.e. a context in which gender stereotypes suggest that males have better skills than females). In this context, the role of stereotype threat, the leader's gender and their interaction remained implicit in the ratings. The next step in the research programme consisted of a design that would allow comparison of the ratings for female and male leaders when both genders face stereotype threat as well as stereotype advantage.

Chapter 4 Study 2

4.1 *Introduction*

Study 2 aimed to further examine stereotype threat effects on leader performance ratings. In Study 1, followers received information that explicitly favoured males, a context which implied stereotype threat for females. In that context, Study 1 found that male leaders benefitted from the ratings of high team identifiers, but this benefit of team identification disappeared when the leaders were females. However, the results in Study 1 implied the need to further examine (a) the role of stereotype information about the leader's gender in the manipulation, (b) the role of leader gender and (c) their interaction with team identification. Accordingly, Study 2 expanded the manipulations to males to include both genders in stereotype threat and stereotype advantage conditions. Thus, Study 2 used a comparative condition to weigh against stereotype threat effects for both male and female leaders. Study 2 tested whether followers would rate female leaders differently when the information implied stereotype threat for females compared with the condition when it indicated stereotype advantage for females. Further, the expanded design allowed a comparison of the ratings for female leaders with those for male leaders in both conditions, an analysis which elucidates whether stereotype threat effects in terms of the ratings were similar for female and male leaders. Finally, Study 2 aimed to further investigate the moderating role of team identification in light of the leader's gender and the stereotype information followers received.

Expanding stereotype threat manipulations for males implies a context that differs from the reality of the workplace described in role congruity theory (Eagly and Karau, 2002) and in stereotype threat research (e.g., von Hippel et al., 2011). These perspectives argue that women face challenges in leadership roles compared with males due to the incongruity of leadership roles and female stereotypes. In recent years, however, emerging views in the media (e.g., Sharpe, 2000; Zenger and Folkman, 2012), public policy (Lord Davies, 2011) and academia (Eagly, 2007) have been maintaining that females possess characteristics which prove to be powerful assets in leadership roles. These qualities, such as relationship orientation, have a positive impact on leadership,

particularly in the current economic crisis. Thus, policy makers suggest that increasing the number of female leaders will not only establish gender equality, but will also improve leadership quality in general (Lord Davies, 2011). Based on such arguments, Study 2 expanded the stereotype threat condition for males.

Study 2, similarly to Study 1, involved undergraduate mixed-gender teams and focused on followers' ratings of their leaders' performances as part of in-class presentations. As in Study 1, prior to the presentations, the followers read the experimental manipulations. The manipulations drew attention to the stereotypic advantages of one gender category in presentation skills, while implying stereotype threat for the opposite gender. Accordingly, the manipulations suggested that either males were better than females or the opposite – that females were better than males. In sum, the manipulation as a threat aimed to trigger concerns in the followers that their leaders might perform poorly, as an advantage, it aimed to indicate that the leader may perform well. Study 2 investigated the consequences of these manipulations on how followers rated their leaders' performances.

Study 2 tested moderation by social identification separately for male and female leaders comparing stereotype threat and stereotype advantage as directed toward the leaders' gender. That is, while Study 1 tested moderation between the leaders' genders, Study 2 examined moderation within the leaders' gender (male or female) and between the leader gender conditions (stereotype advantage or threat).

4.2 Aims of Exploration and Testing

Study 2 used the leader gender condition² to further investigate the interaction between leader gender and team identification as found in Study 1. Study 2 further aimed to test the three-way interaction between leader gender condition, leader gender and follower gender. The analysis compared/contrasted ratings for male and female leaders by leader gender condition (stereotype threat or stereotype advantage) and follower gender. This analysis allowed for testing (1)

² Leader gender condition refers to how the information participants received related to their leader's gender. For example, when the leader was a male, and if the information proposed that males are better than females, the leader gender condition corresponded with stereotype advantage.

how the followers rated the leaders when the information implied threat for the leader's gender and when it pointed to an advantage, and (2) how sharing (as compared to not sharing) a gender category with the leader affected the ratings. Building on Study 1, the following outline of Study 2 focuses on team identification. The results for gender identification were not significant and are presented in Appendices 6–11.

4.3 Method

4.3.1 Participants

One hundred and one undergraduate students in two leadership modules ($n=57$ and $n=44$, respectively) formed 27 mixed-gender teams of four to five persons to act as independent consulting companies. The teams represented the ratio of UK home students and international students in the two modules (50:50). The students' ages ranged from 18–29 years and the median age was 21. The analysis excluded five followers with missing data and included the rest of the followers ($N=69$). In order to increase statistical power, Study 2 combined the two data sets on the basis of similarities in (a) the ratio of UK home and international students, (b) the presentation requirements and (c) the length of time the teams spent together. The question items for each measure and the manipulations were identical in the two modules.

4.3.2 Design

The analysis used a 2x2x2 design with leader gender condition (stereotype advantage or stereotype threat), follower gender (male or female) and leader gender (male or female) as the independent variables and followers' ratings of leader performance as the dependent variable. The two forms of identity (team identity and gender category) imply that the stereotype information applies to the followers in two ways: (a) as members of the team the leader is expected to represent, and/or (b) by sharing the same gender category as the leader. For example, when the information implies threat for the leader's gender, followers may worry that the leader might confirm the negative stereotype, which would negatively reflect on team identity. Further, when the leader's gender matches the follower's gender, the followers may fear that the leader might reinforce the negative view of the shared gender category. Importantly, when the leader's

gender and the follower's gender differ, the followers could see an advantage to their own gender category, but face a threat in terms of team identity (Table 4.1 and Table 4.2).

Table 4.1

Condition by Follower Gender and Leader Gender in the "Males are Better" Scenario (n=36)

<i>Leader gender</i>	<i>Follower gender</i>	<i>Leader gender condition</i>	<i>Follower's condition</i>	<i>n</i>
Female	Female	Threat	Threat	7
Male	Female	Advantage	Threat	16
Female	Male	Threat	Advantage	7
Male	Male	Advantage	Advantage	6

Table 4.2

Condition by Follower Gender and Leader Gender in the "Females are Better" Scenario (n=33)

<i>Leader gender</i>	<i>Follower gender</i>	<i>Leader gender condition</i>	<i>Follower's condition</i>	<i>n</i>
Female	Female	Advantage	Advantage	10
Male	Female	Threat	Advantage	9
Female	Male	Advantage	Threat	7
Male	Male	Threat	Threat	7

4.3.3 Procedures

Similarly to Study 1, participants formed teams of four to five individuals and worked on several tasks throughout the entire period of 11 weeks in each module, choosing a different leader for each task. For the final task, two-thirds of the way along each module, the teams prepared material to be presented by the leader. As part of experiential learning and non-marked in-class assignments, participants evaluated the presentations of their team leaders. The teams spent enough time together to develop cohesion, thus, the teams were suitable to study representations of team identity and leader-follower

relations. The presentations took place in a two-hour session with the participation of all leaders and members of the teams (the followers) as the audience. Prior to the presentations, the followers received a presentation evaluation booklet that included the experimental manipulations and the pre-test and post-test measures.

Stereotype threat manipulations. As in Study 1, the manipulations avoided derogatory statements about the targeted gender and pointed to the stereotypic advantages of the opposite gender in presentation skills. The manipulations relied on research outlining gender differences in communication styles (Tannen, 2007). The manipulations framed both male and female styles as being advantageous. As in Study 1, participants read a short and simply-written abstract including bogus scientific references and bogus results of past research in the same modules. The teams read either the “males are better” or the “females are better” scenario. Members of the teams sat together, leaving space between them and the members of the other teams to avoid contact that might reveal that the teams received different scenarios to read. Such a seating arrangement minimized the risk of students realizing that they were participating in an experiment. Further, the experimenter requested students to remain silent and participate thoughtfully while reading the article so students would read the manipulations and would not communicate with each other. Half of the participants read that females are better presenters than males because females have a relationship-oriented communication style which ensures good vocabulary, appropriate words and clear communication. In the “females are better” scenario participants received the following information:

Presentation skills have been researched at various universities throughout the world. They have shown that women generally are better presenters than men. Research at the University of Exeter has confirmed that approximately 80% of female students are better communicators than male students. In previous years we have found this to be true in our leadership modules. This gender difference has its roots early in life. Girls spend much time communicating socially which leads them to develop a relationship oriented communication style (Spencer, J, 2003, for example). They build up a good

vocabulary, use appropriate words and communicate clearly. These qualities support communication skills that make most females become better presenters than males.

The other half of the participants read that males are better presenters because males have a goal-oriented communication style characterized by assertiveness, directness and getting straight to the point. The following information was presented in the “males are better” scenario:

Presentation skills have been studied at various universities throughout the world. They have shown that men generally are better presenters than women. Research at the University of Exeter has confirmed that approximately 80% of male students are better communicators than female students. In previous years we have found this to be true in our leadership modules. This gender difference has its roots early in life. Boys focus on status achievement activities which lead them to develop a goal oriented communication style (Spencer, J, 2003, for example). They become assertive, direct, and they get straight to the point. These qualities support communication skills that make most males become better presenters than females.

Next, the participants listed either three public speakers or named three individuals who represented a female or male communication styles as outlined in the passages. This additional task aimed to reinforce participants' thinking about communication styles in the way suggested in the manipulations. The participants then completed team identification and gender identification questionnaire items. The presentations then started, with each presenter speaking for five minutes and the followers completing their ratings for each presenter in one minute. After the ratings, the experimenter debriefed the students and offered them the opportunity to withdraw their answers if they wished. No students objected to their data being used for the study. In the following class meeting the students received a lecture on leader perception, social identity and stereotypes. As part of the lecture, the students discussed their experiences in the study.

4.4 Measures

All the questions were in the form of 7-point Likert scales, with answer choices ranging from “Not at all” to “Extremely.”

Team identification. Compared with Study 1, due to time restrictions, the team identification measure contained only four items taken from Doosje et al. (1995) and came after the manipulations. The average of the four items formed a reliable measure ($\alpha=.83$), with high scores indicating strong team identification.

Performance. The presentation communication skills measure consisted of the same items as in Study 1. The measure included *confidence* (assertiveness, getting straight to the point and directness), *verbal skills* (good vocabulary, appropriate words, and clearness), *lack of confidence* (uncertainty, hesitation, insecurity), *non-verbal skills* (eye contact, appropriate facial expression, posture), and persuasion, effectiveness and being a good communicator. After recoding the items for lack of confidence, the average of the fifteen items formed a composite measure ($\alpha=.84$). High scores indicated that the followers favourably evaluated the leader’s performance.

4.5 Results

The results section contains three parts. First, a preliminary analysis (a) examines followers’ ratings for their own team leaders versus the leader of others teams, (b) provides descriptive statistics of team identification and leader performance and (c) explores the effects of the manipulations on team identification. Second, a hierarchical regression analysis tests the moderating role of team identification in terms of stereotype threat effects on the ratings for male and female leaders. Third, the analysis explores the main effects and interactions between leader gender, follower gender and leader gender condition.

4.5.1 Preliminary Analysis³

Ratings for followers’ own teams versus the other teams. Study 2 aimed to better capture differences between the ratings for in-group leaders and those of

³ Due to the low sample sizes, the preliminary analysis excluded testing differences between the data sets obtained from the two modules.

out-group leaders than was the case in Study 1, in which participants evaluated only one out-group leader. In Study 2, the followers completed the ratings for each presenter. A paired sample t-test compared the ratings for followers' own team leaders with the ratings for the leaders of the other teams. The average ratings for out-group leaders formed a reliable scale ($\alpha=.92$). The ratings were significantly higher for followers' own team leaders ($M=6.00$, $SD=.83$) than for the leaders of the other teams ($M=5.30$, $SD=.88$), $t(918) = 6.60$, $p = .001$. As in Study 1, the ratings implied in-group bias, which in the social identity analysis plays a role in maintaining positive distinctiveness (Tajfel and Turner, 1986). This result confirmed that the students regarded their teams as important.

Descriptive statistics of team identification and performance ratings. The mean for team identification was positioned above the midpoint of the scale ($M= 6.14$, ($SD=.87$), suggesting that participants strongly identified with their teams. The mean for performance ratings was 5.98 ($SD=.81$), which indicated that the followers favourably evaluated their leaders' performances overall.

The effect of the manipulations on team identification. Preliminary analysis showed that the interaction between follower gender and the leader gender condition had a significant impact on team identification (see Appendices 3–5). This result indicated that regardless of whether the leader was male or female, when the leader gender condition was stereotype threat, female followers identified more with their teams than when the leader's gender was advantaged. In contrast, male followers identified less with their teams when the leader gender condition was stereotype threat than when it was stereotype advantage.

4.5.2 Regression Analysis for the Moderating Role of Team Identification

The regression analysis explored whether, in Study 1, high team identifiers' favourable ratings for male leaders (stereotype advantage) relative to female leaders (stereotype threat) related with the gender of the leader or with the threat/advantage meaning of the manipulation for the followers. A hierarchical regression analysis tested the moderating role of team identification while excluding follower gender from the model, a model which reduced the number of predictors and hence increased statistical power. That is, the regression

analysis examined how team identification affected the ratings while collapsing the data over the follower gender categories. Although including follower gender would be the ultimate goal of the analysis, the limited sample size did not allow for testing the four-way interaction. The regression analysis used centred scores for team identification. The codes for leader and follower genders were -1 for females and +1 for males and for leader gender condition they were -1 for advantage and +1 for threat. The first step included the main effects of leader gender condition, the leader's gender, and team identification; the second step included the two-way interaction terms and the third step the three-way interaction term.

Step 1 resulted in a significant change in the explained variance (Table 4.3). The leader gender condition had a significant unique contribution to the model. In the second step, the interaction between leader gender condition and leader gender was significant. The following ANCOVA outlines these significant effects in detail. The interaction between the leader gender condition and team identification was not significant. In step 3, the three-way interaction was significant. Simple slope analysis (Aiken and West, 1991) further tested this interaction.

The interpretation of the three-way interaction included graphing the ratings separately for female leaders (Figure 4.1) and male leaders (Figure 4.2). The simple slope analysis tested whether the gradient of one or both of the lines differed from 0 in the graphs. For female leaders, the difference between advantage and threat was not significant among either low or high team identifiers. For male leaders, the difference between stereotype advantage and stereotype threat was significant among high team identifiers, $\beta = .73$, $t(37) = 3.80$, $p = .001$. For low identifiers, the difference was not significant. In sum, high team identifier followers rated male leaders more favourably when stereotype threat applied to males than when the stereotype benefitted males. The ratings for female leaders were no different in the two conditions in terms of team identification.

Table 4.3

Hierarchical Regression Predicting Leader Performance Ratings (N=64)⁴

Step	Variables	R^2	R^2 change	$\beta 1$	$B 2$	$\beta 3$
1	Leader gender condition	.21**	.21**	.36**	.32**	.27*
	Leader gender			-.17	-.10	-.13
	Team identification			.20	.11	.17
2	Leader gender*	.32*	.11*		.34**	.33**
	Leader gender condition					
	Leader gender condition*				-.06	-.06
	Team identification					
3	Leader gender*Team identification				.01	.09
	Leader gender condition*	.37*	.05*			.25*
	Leader gender*Team identification					

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

⁴ The analysis excluded a male follower and two female followers with female leaders (Leader gender condition: stereotype threat) and a male follower with female leader (Leader gender condition: advantage) with studentized residuals over ± 2.20 and Cook's distance over .09. With the inclusion of these cases the three-way interaction was not significant. The analysis excluded another case due to missing data for team identification.

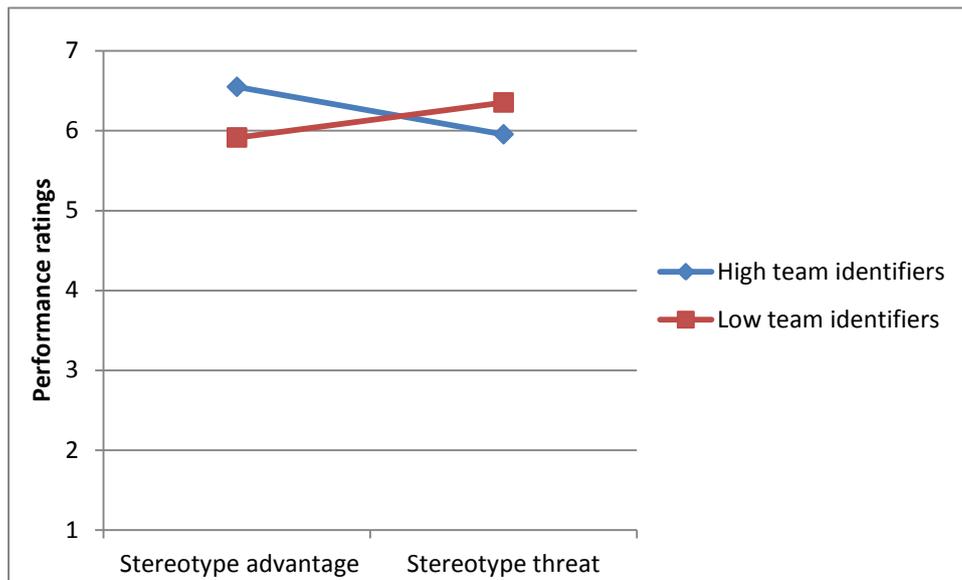


Figure 4.1. Interaction between leader gender condition and team identification in relation to performance ratings for female leaders.

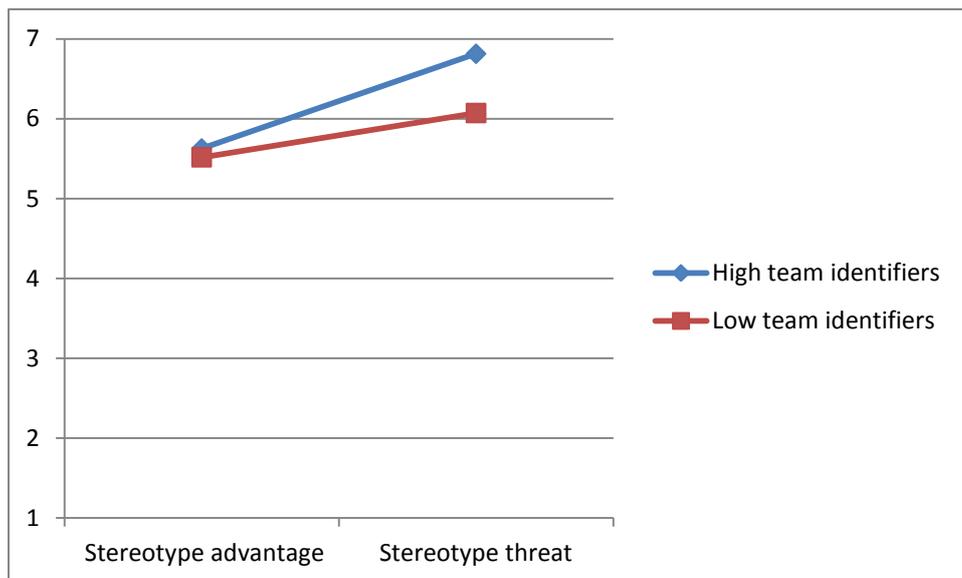


Figure 4.2. Interaction between leader gender condition and team identification in terms of performance ratings for male leaders.

4.5.3 ANCOVA to Examine the Effects of Leader Gender Condition, Leader Gender and Follower Gender

This analysis aimed to test the main effects of leader gender, follower gender and leader gender condition and their interaction effects on the ratings.

Because the manipulations had an impact on team identification, the following analysis controlled for the effects of team identification on the ratings. The

analysis included a 2x2x2 ANCOVA with leader gender condition (stereotype advantage or stereotype threat), follower gender (male or female) and leader gender (male or female) as the independent variables, team identification as the covariate and performance ratings as the dependent variable.

Table 4.4 summarizes the results. The covariate was not significant. The main effects of the leader's gender and the follower's gender were not significant. The main effect for leader gender condition was significant as indicated in regression analysis. The two-way interactions between (a) the leader's gender and the follower's gender; and (b) the leader gender condition and the leader's gender were significant (as shown in the regression analysis); the interaction between (c) leader gender condition and follower gender was marginally significant. The three-way interaction was also significant.

Table 4.4

Analysis of Covariance for Leader Performance Ratings (N=66)⁵

Source	df	F	η	Sig.
Team identification	1	2.86	.04	.14
Leader gender condition	1	10.29	.15	<.001
Leader gender	1	1.06	.02	.31
Follower gender	1	.35	.00	.56
Leader gender condition*	1	8.50	.13	<.001
Leader gender				
Leader gender condition*	1	.3.45	.06	.07
Follower gender				
Leader gender * Follower gender	1	7.34	.12	<.01
Leader gender condition*	1	7.78	.12	<.01
Leader gender* Follower gender				
Error	57			

The three-way interaction qualified the significant main effect and two-way interactions. The interpretation of the three-way interaction includes separate graphing for female leaders (Figure 4.3) and male leaders (Figure 4.4). Female followers rated female leaders significantly lower when the information implied stereotype threat for females ($M=5.65$, $SD=.86$) than when it indicated an advantage ($M=6.34$, $SD=.4$) $t(16) = 2.14$, $p < .05$. On the other hand, male followers rated female leaders marginally higher when females were under threat ($M=6.59$, $SD=.33$) than when the manipulation favoured females

⁵ The analysis excluded a female participant with a female leader (Leader gender condition: stereotype advantage) and a male follower with a female leader (Leader gender condition: stereotype threat). These cases had values for Cook's distance of .16 and .13; and studentized residual of -2.78 and -3.17, respectively. The inclusion of these cases reduced the magnitude of the main effect of leader gender condition ($\eta=.11$, $p < .01$) and leader gender condition*leader's gender interaction ($\eta=.10$, $p < .05$). Further, the three-way interaction became non-significant ($p=.11$). The analysis excluded one additional participant due to missing data for team identification.

($M=5.92$, $SD=.79$), $t(13) = 1.94$, $p=.08$. That is, in response to stereotype threat directed toward females, male followers favourably evaluated female leaders (marginal significance) while female followers downgraded them compared with the condition when the stereotype positively related to females. For male leaders, a different pattern emerged. Male followers rated male leaders marginally higher when the information implied a threat for males ($M=6.00$, $SD=.69$) than when it pointed to their advantage ($M=5.36$, $SD=.32$), $t(13) = -2.07$, $p=.062$. Female followers rated male leaders significantly higher when males were under threat ($M=6.88$, $SD=.27$) than when the information favourably described males ($M=5.65$, $SD=.86$), $t(23) = 4.93$, $p<.001$. That is, followers (particularly female followers) favourably evaluated their male leaders' performances in response to stereotype threat directed toward males relative to the condition when the manipulation advantaged males.

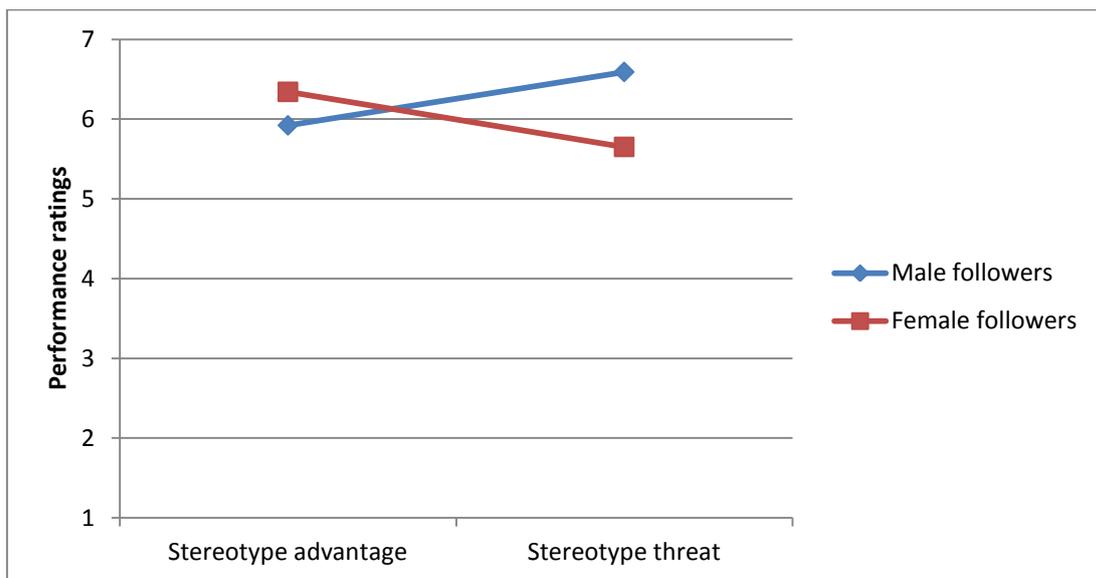


Figure 4.3. Interaction between leader gender condition and follower gender on performance ratings for female leaders.

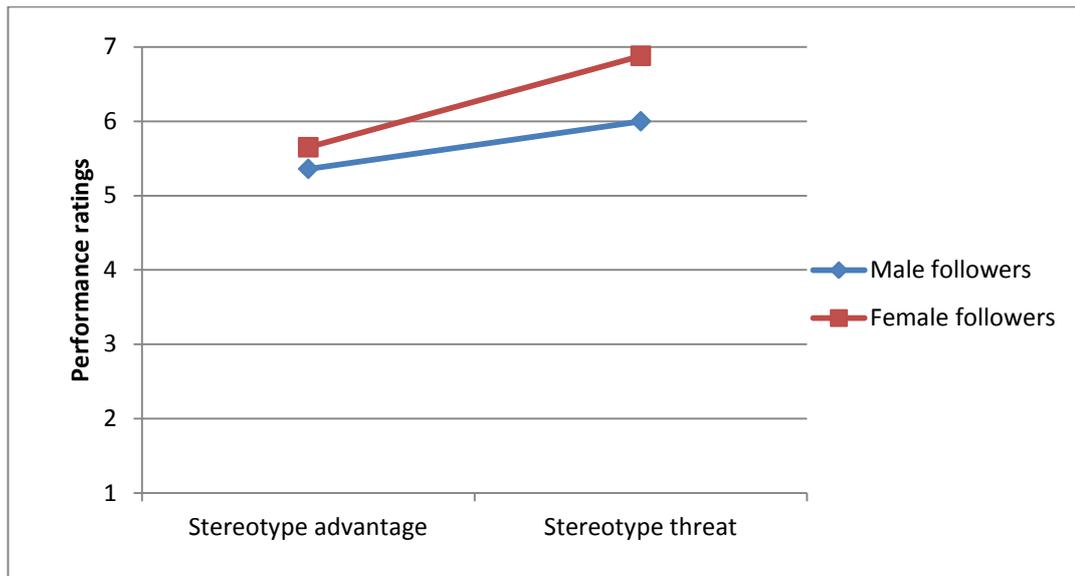


Figure 4.4. Interaction between leader gender condition and follower gender in terms of performance ratings for male leaders.

4.6 Discussion

Study 2 further investigated how stereotype threat directed toward the leader's gender affected followers' ratings of their leader's performance. In Study 1, the manipulations described males in advantageous terms, which implied stereotype threat for females. To provide a more comprehensive analysis, in Study 2, the manipulations included males and females both as advantaged by the stereotype and as the targets of stereotype threat. The analysis focused on followers' responses to stereotype threat and stereotype advantage directed toward the leaders' genders in terms of rating male and female leaders' performances.

Study 2 had three main findings. First, team identification moderated stereotype threat effects. High team identifiers rated male leaders higher when stereotype threat applied to males compared with stereotype advantage, whereas for female leaders team identification did not moderate the ratings.

Second, leader gender significantly interacted with the leader gender condition. Followers rated male leaders higher when males were under stereotype threat than when the stereotype favourably related to males. This result implied that followers showed solidarity toward male leaders in response to stereotype threat directed toward males. Importantly, these favourable ratings

in response to stereotype threat were evident for male leaders, but not for female leaders.

Third, the three-way interaction including follower gender qualified the relationship between leader gender and leader gender condition. Sharing (or not sharing) a gender category with the leader had different consequences for female and male leaders. When the stereotype implied a threat for females, female followers rated female leaders lower than when the stereotype positively related to them. In contrast, male followers rated female leaders marginally higher under threat than when females saw an advantage in the stereotype. A different pattern emerged for male leaders. Female followers rated male leaders favourably when males were under threat relative to when the stereotype pointed to males' advantage. In a similar way, male followers rated male leaders marginally higher when the information implied threat for males compared to when it favoured males. Therefore, male followers gave marginally higher ratings to both male and female leaders when there was a threat to the leader's gender relative to the stereotype advantage information, while female followers showed support for male leaders but distancing from female leaders when stereotypes cued leader threat.

4.6.1 *Solidarity with Male Leaders*

Female followers, male followers (marginal effect) and high team identifiers evaluated male leaders more favourably when the stereotype implied threat than when there was an advantage for males. The results in Study 2 in this thesis suggest that female followers showed support for male leaders when males were under stereotype threat, relative to how female followers rated male leaders in the stereotype advantage condition. The results imply that stereotype threat triggered solidarity with male leaders among female followers. The ratings in terms of team identification indicated similar results for male leaders. These ratings are in accord with research by Branscombe et al. (1999) proposing that, under threat, individuals maintain commitment toward other in-group members, especially when group membership is important. However, the findings in Study 2 indicate that this phenomenon is evident only for the male leaders - female leaders did not benefit from high team identifiers' ratings in the same way as male leaders did.

4.6.2 *Distancing from Female Leaders*

Female followers evaluated female leaders less favourably when stereotype threat applied to females compared to when female advantage was suggested. Such downgrading among females could result from the double threat female followers faced, one from sharing a gender category with the leader, and one from being members of the team the leader represented. Based on Cohen and Garcia's research (2005), such downgrading implied collective threat, the fear that female leaders may interfere with the positive distinctiveness of females by reinforcing a negative female stereotype. A further explanation includes acceptance threat (Branscombe et al., 1999). The possibility that female leaders may perform poorly could cast doubt on female team members' entitlement to occupy central positions within the team, resulting in a psychologically undesirable peripheral status (Pickett and Brewer, 2004). Based on this perspective, to maintain inclusion and to express commitment to the team, female followers distanced themselves from female leaders in the stereotype threat condition relative to the advantage condition. In this study, distancing from the leader manifested in low performance ratings compared to situations when the stereotype positively related to females.

The results for team identification also revealed a different pattern for female leaders compared with male leaders. Whereas high team identifiers showed solidarity toward male leaders as a response to threat compared with stereotype advantage for males, female leaders did not receive such favourable ratings. Study 2 thus found conflicting evidence in terms of the proposition (Branscombe et al., 1999) that team members show solidarity toward other group members in the face of threat. In Study 2 such solidarity in terms of team identification depended on the gender of the leader. Accordingly, stereotype threat directed toward males induced high identifiers to show solidarity toward male leaders, but the threat for females did not mobilize high team identifiers to show similar support for female leaders.

4.6.3 *Conclusions*

Overall, the findings suggest that leader stereotype threat (experienced as collective threat for the followers) had different consequences for female leaders and male leaders in terms of their followers' ratings. Male leaders under threat

benefitted from the ratings of followers relative to the advantage condition – the latter result was particularly evident for female followers and high team identifiers. Female leaders were downgraded by female followers, and further, female leaders did not benefit from the ratings of high team identifiers, that is, high team identifiers gave no higher ratings for females under threat relative to the advantage condition. Importantly, in contrast to previous research (Eagly et al., 1992; Wolfram et al., 2007) indicating that males in general have negative attitudes toward female leaders, in Study 2 (as in Study 1) stereotype threat to females did not induce the downgrading of female leaders among male followers. Indeed, in Study 2 male followers gave marginally higher ratings for both male and female leaders when the leader's gender was under threat relative to stereotype advantage. The results suggest that, in contrast to stereotype threat for females, stereotype threat directed toward males did not threaten their followers' positive distinctiveness in terms of shared team identity and gender category.

In the context of in-class presentations, Study 2 tested how leader ratings were affected by followers' concerns that their leader's performance may reinforce a negative gender stereotype, and how such ratings compared with a condition in which the leader's gender was advantaged. The results suggest that sharing a gender category with the leader under threat had a negative effect on leader performance ratings among females, an outcome that implies that stereotype threat negatively affected female followers' attitudes toward female leaders. This result draws attention to the need to more closely examine the issue of sharing gender with one's leader and also to expand the measures of leader evaluation beyond performance ratings to include other indicators of leader-follower relations. The following experiment (Study 3) in the thesis elaborates on these aims.

Chapter 5 Study 3

5.1 *Introduction*

Study 3 specifically focused on how sharing a gender category (and team identity as well) with the leader affected followers' attitudes toward their leaders in response to stereotype threat. In Study 1 and Study 2, stereotype threat and advantage to the followers depended on how the manipulations related with the leaders' gender. When followers shared a gender category with the leader, the stereotype also applied to the followers. However, when the leader's gender differed from the follower's gender, the follower's condition did not match the leader gender condition. For example, when females faced stereotype threat, male followers could see an advantage in terms of gender category. Study 3 reduced this complexity in order to focus on shared gender category between the leaders and followers, a method which simplified the design because the leader gender condition matched the follower's condition. Accordingly, Study 3 used single-sex teams, as opposed to the mixed-gender teams in Studies 1 and 2. In single-sex teams, stereotype threat directed toward the leader's gender applies to each team member. This method also paralleled Cohen and Garcia's study (2005) on stereotype threat as collective threat, in which each participant shared the threat with the confederate in terms of race or gender.

Thus, Study 3's design was suitable to specifically explore the finding in Study 2 indicating that stereotype threat had a negative impact on how female followers rated their female leaders. Such a finding has relevance for women's leadership and mentorship programmes. Various universities and organizations offer such programmes to provide potential female leaders with the opportunity to learn from established female leaders as role models. These programmes aim to lift the psychological barriers that keep women away from leadership roles, helping women realize that, equally to males, they can become successful leaders. Study 2 gave an indication that stereotype threat has negative implications for how female followers perceive their female leaders, and such perceptions may interfere with seeing female leaders as role models. Using single-sex teams, Study 3 aimed to shed lights on this matter.

Study 3 also moved the evaluation context from presentations to a task that better compared with leaders' tasks in organizations, while retaining the

leader's role of performing on behalf of and representing their followers. The leaders of the teams participated in a discussion in which their task included arguing in favour of and achieving the goals of their teams.

Study 3 focused not on actual, but rather on predicted performances. Predicted performance provides an immediate insight into followers' responses to stereotype threat, while removing the potential impact of the leader's actual performance on leader ratings. Because subordinates rarely observe their leaders' actual performances in meetings with executives etc., predicted performance has also have relevance for the organizational context.

Study 3 expanded the dependent variables in order to measure distancing/solidarity in terms of leader-follower relations. Following the social identity theory of leadership (Hogg, 2001; Reicher et al., 2005; van Knippenberg and Hogg, 2003), these measures included the leader's prototypicality in the team and identification with the leader. Based on Cohen and Garcia's research (2005), Study 3 also measured collective threat. These measures elucidated more about the effects of stereotype threat on leader-follower relations beyond performance ratings as measured in Studies 1 and 2. Study 3 also examined the implications of stereotype threat for the self among the followers. Distancing from female leaders in Study 2 implied that the threat may also affect how female followers perceive themselves. To investigate how distancing from/solidarity with the leaders may relate to followers' feelings about themselves in response to stereotype threat, Study 3 included followers' self-efficacy for leadership among the dependent measures..

Finally, Study 3 used a no-threat condition for comparison with the threat condition, in line with typical practice in stereotype threat research. Study 1 and Study 2 used stereotype advantage to indicate that stereotype threat directed to one gender category meant stereotype advantage for the opposite gender. However, in terms of definition, stereotype advantage may not be just the opposite of stereotype threat. Therefore, comparing stereotype advantage and stereotype threat conditions has limitations. Using single-sex teams in Study 3 allowed an exploration of how stereotype threat might compare with situations in which no alleged gender differences exist. Study 3 also accounted for the impact of how effective the followers perceived their leaders to be prior to the

manipulations. This enabled the analysis to use leader effectiveness as a control measure for the effects of stereotype threat on leader ratings.

5.2 Aims of Exploration and Testing

The analysis focused on how gender moderated stereotype threat effects on predicted performance and on distancing/closeness with the leader in terms of prototypicality, identification with the leader and collective threat. The analysis tested the role of team identification as a moderator based on Study 2, which showed that high identifiers rated male leaders more favourably when males were under threat than when males saw an advantage to their gender. The analysis also assessed followers' self-efficacy in terms of the interactions between gender, condition and team identification. Although gender identification showed no moderating trends in Study 1 or Study 2, the analysis in Study 3 tested its moderating role in the gender and condition interaction.

5.3 Method

5.3.1 Participants

Fifty-two undergraduate first-year students (28 females and 24 males) participated in the study as part of in-class assignments and experiential learning in a module called "Leadership in teams". The participants' ages ranged from 18 to 25 years. Approximately half of the students were United Kingdom home students, while the other half were international students. Students formed 11 single-gender teams of five to seven individuals, comprising six female and five male teams. The teams represented the ratio of home and international students. The analysis used data collected from the followers ($n=41$). Participation in the study was part of in-class experiential learning.

5.3.2 Design

Corresponding to the single-sex teams, Study 3 used a 2x2 design (gender: male or female) x (condition: no threat or stereotype threat). Table 5.1 provides a summary of the conditions and the number of participants in each condition.

Table 5.1

Conditions by Leader Gender and Follower Gender (N=41)

<i>Leader gender</i>	<i>Follower gender</i>	<i>Leader gender condition</i>	<i>Follower's condition</i>	<i>n</i>
Female	Female	Threat	Threat	9
Female	Female	No threat	No threat	13
Male	Male	Threat	Threat	10
Male	Male	No threat	No threat	9

5.3.3 Procedure

At the start of the experiment, students joined their single-sex teams. The instructor told the students that the teams would work on hypothetical business problems. The instructor also randomly assigned one individual per team as the leader to avoid complications such as unnecessary conflicts in the teams regarding who the leader should be. The teams acted as shareholder groups with interests in decisions concerning energy solutions in the County of Devon. Each team corresponded to one out of eleven interest groups, ranging from the city council to environmentalists to local small businesses. The teams had three main tasks to complete. First, they decided on the type of energy source they would advocate (power plants, wind farms etc.). Second, they identified other interest groups as their key allies. Finally, they made an overall proposal concerning their goals and plans. The teams were told that, following the team discussions, their leaders would represent their teams in a committee meeting with the other team leaders. The instructor explained that the leaders would argue on behalf of their teams and attempt to achieve the goals of their teams. The team work allowed a moderate level of team dynamics to develop, which made meaningful the leaders' tasks of performing on behalf of and representing their teams in the committee meeting. After 15 minutes of team working, the leaders participated in the committee meeting in a separate classroom. Meanwhile, the members of the teams – the followers – received the experimental questionnaire. After participants had completed the questionnaires, the experimenter debriefed the students and offered them the chance to withdraw their answers. No students objected to submitting their

answers. Students also took part in a discussion of their experience in the study with reference to class materials.

Data collection. The participants completed a questionnaire containing the pre-test measures, stereotype threat manipulations and post-test measures. The first page of the questionnaire contained the pre-test measures. These consisted of items assessing team identification and perceptions of the leader's effectiveness during the team work. The following page contained the experimental manipulations. As in studies 1 and 2, the manipulation was in the form of a written text. After reading this material, the participants answered questions assessing the dependent measures. These included predicted performance of their team leader, the leader's prototypicality, pride in similarity with the leader, identification with the leader, collective threat and the follower's self-efficacy for leadership. Additionally, two weeks prior to the experiment, the students answered items for gender identification as part of another in-class exercise. This advance data collection aimed to avoid making gender salient prior to the manipulations, which improved the methods in Study 3 compared with Studies 1 and 2. Students indicated their name or student ID number both at the time of answering gender identification questions and at the time of the experiment, which allowed for matching students' data. The study did not use the personal details in the output of the analysis.

Stereotype threat manipulations. After answering questions relating to team identification and the leader's effectiveness, the students read the experimental manipulations. The reading consisted of references to bogus scientific research and a newspaper article. In the stereotype threat condition, the male followers read that studies have shown that female stakeholder group leaders generally outperform male leaders. As a result, the manipulation continued, female-led interest groups achieve more success than groups with male leaders. Female followers in the stereotype threat condition read that male leaders perform better than female leaders and male-led interest groups are more successful. The manipulations contained an explanation of why the gap between male and female leaders exists. This explanation cued gender stereotypes. The manipulations used male and female stereotypic traits based on research

exploring the validity of gender stereotypes (Cota, Reid and Dion, 1991). The male followers in the stereotype threat condition read that females have exceptional skills in managing interpersonal relations and intuition for decision-making. Female followers in the threat condition read that males have an advantage in strategic and analytic leadership skills. In the no-threat condition, the participants read that gender is not related to the performances of the leaders of stakeholder groups. Therefore, the no-threat condition stressed the impartiality of gender in terms of leader performance in stakeholder groups.

Each condition further included a newspaper article supporting the claims in the manipulations. In the stereotype threat condition for females, a published article proposed that females on boards have a negative impact on the performance of FTSE companies (The Times, 2003). Male followers in stereotype threat read a re-worded version of the same article suggesting that males on boards of FTSE companies have a negative impact. Additionally, while students were reading the passages, they received a bogus feedback sheet seemingly obtained from the leaders' committee meeting containing a diagram that showed the average confidence levels of male and female leaders. To reinforce the threat and raise its applicability to each leader, the information in the diagram supported the claims in the manipulations. In the stereotype threat condition for male followers, the diagram showed that male leaders had less confidence than female leaders; and for female followers, it showed the reverse. In the no-threat condition, the diagram indicated no difference in the confidence levels of male and female leaders (see Appendices 12-14).

Teams assigned to the same condition sat together and were kept apart from other teams assigned to a different condition to ensure that the students would not communicate with others in a different condition. Such arrangements avoided the students learning that the questionnaires contained different readings and minimized the risk of students finding out that they were participating in an experiment. The researcher requested complete silence from the students while completing the questionnaire in order to ensure maximum engagement and to avoid communication between the teams.

5.4 Measures

All the questions were in the form of 7-point Likert scales, with answer choices ranging from “Not at all” to “Extremely.”

5.4.1 Pre-test measures

Identification with gender. The gender identification measure included three items from Mael and Ashforth’s (1992) social identification scale. These three items were reworded specifically to measure gender identification as follows: “If someone criticized my gender, it would feel like a personal insult”; “If someone praised my gender, it would feel like a personal compliment”; and “In general, the successes of people of my gender are my successes.” One additional reworded item from the scale of Branscombe et al. (1999) included, “I identify with other people of my gender.” Taking the average of the four items resulted in a reliable scale ($\alpha=.76$), with high scores indicating strong gender identification.

Identification with the team. The measure for team identification consisted of five items, of which two measured how students felt working with the other members of the group. These two items were “I am happy with how we worked together as a team” and “I am satisfied with how my teammates contributed to the task.” Three items taken from two different scales measured identification with the team. These included “I feel good when I think about myself as a member of this team” and “I identify with other members of this team” (Branscombe et al., 1999); and “If someone praised this team, it would feel like a personal compliment” (Mael and Ashforth, 1992). The average of five items formed a reliable scale ($\alpha=.91$). High scores indicated strong identification with the team.

Leader effectiveness during the team discussion. Seven items measured the perceived effectiveness of the leader during the group task based on a measure developed by Fielding and Hogg (1997). Example items included: “The leader helped the team achieve its goals” and “The leader was effective at influencing the team”. The seven items formed a composite measure ($\alpha=.91$), with high scores indicating high leader effectiveness.

5.4.2 *Post-test measures*

The time restriction for the experiment limited the number of items used for predicted performance (2 items), the leader's prototypicality (2 items), identification with the leaders (2 items), collective threat (2 items), pride in similarity with the leader (1 item), and followers' self-efficacy for leadership (3 items).

Predicted performance. Two items measured how followers would predict the performance of their leader in the committee meeting. The first item focused on the likelihood of the leader performing successfully in the committee meeting: "My leader will be successful in the committee meeting". The following item related more to the perceived efficacy of the leader: "I trust my leader's skills to do well in the committee meeting". The average of the two items formed a composite measure ($r=.78$). High scores indicated that participants predicted the leader to perform well in the committee meeting.

Leader-follower proximity to measure distancing from/closeness toward the leader. This measure included the leader's prototypicality, identification with the leader, collective threat and pride in similarity with the leader. Because the four separate constructs based on seven items in total would complicate the interpretation of the results, the analysis used a composite measure to assess distancing/closeness in relation to the leader. Such a measure provided an opportunity for a simpler analysis and a reduced Type-1 error rate. The seven items were too few to demonstrate the distinctiveness/closeness of the four constructs in a principal component analysis, therefore the combination of the seven items relied on how the constructs related conceptually.

Prototypicality and identification with the leader constituted the central components of the measure due to their overlap in expressing positive attitudes toward the leader. These items reflected a sense of "the leader is one of us". The social identity theory of leadership highlights the relationship between identification with one's leader and perceptions of leader prototypicality, suggesting that prototypicality predicts strong identification (Hogg, 1992). Two items measured prototypicality based on an established scale (van Knippenberg and van Knippenberg, 2005): "My leader is a good example of the kind of people in my team" and "My leader stands for what people in my team have in

common". Two items measured identification with the leader. One item, "If someone criticized my leader in the committee meeting, it would feel like a personal insult", was taken from the scale of Mael and Ashforth (1992) and has been used in previous studies to assess leader identification (e.g., Wu, Tsui and Kinicki, 2010). The second item, specifically created for Study 3, was "I identify with my leader in this leadership exercise".

Collective threat and pride in similarity with the leader connect with the leader-follower proximity measure as these constructs reflect positive/negative feelings about being similar to the leader and about the leader's representation of the group. Two items assessed collective threat based on a previous measure (Cohen and Garcia, 2005): "Thinking that my leader represents my team in the committee makes me feel worried" and "I would feel worried if others drew conclusions about my team based on meeting my leader". A single item measured how proud followers would feel about being seen as similar to their leaders. This item was, "I would feel proud if others thought that people in my team were similar to my leader".

The average of the seven items proved to be a reliable scale ($\alpha=.89$) to measure leader-follower proximity, with no items indicating too weak an influence on the overall reliability of the scale. High scores indicated closeness to the leader and low scores indicated distancing.

Followers' self-efficacy for leadership. Three items measured followers' self-efficacy based on an established scale (Murphy, 1992) that is commonly used to measure self-efficacy for leadership (e.g., Burnette, Pollack and Hoyt, 2010). The items were re-worded to match the context of Study 3; "I would feel confident in my abilities to represent my team as a leader"; "I would be willing to represent my team as a leader in the committee meeting"; and "I would feel able to do well in the leadership exercise". The averaged scores formed a reliable scale ($\alpha=.95$); high scores indicated high self-efficacy for leadership.

5.5 Results

5.5.1 Preliminary Analysis

The relationship between pre-test measures and gender. Table 5.2 shows means and standard deviations for and correlations between the pre-test

measures and gender. The mean scores for leader effectiveness, team identification and gender identification were above the midpoint of the scales (Table 5.2). This suggests that, overall, followers perceived their team leader as effective and identified with their team and with their gender. The positive significant correlations of leader effectiveness with team identification and gender identification indicate that the more highly followers identified with their teams and with their gender, the more highly they rated the effectiveness of their leaders. The relationship between team identification and rating of leader effectiveness is predicted by the social identity approach that proposes that high identifiers favourably rate in-group others as a way of enhancing positive distinctiveness (Tajfel and Turner, 1986). Team identification was also significantly correlated with gender identification, an unexpected relationship, as these variables measure different types of identity (i.e. team or gender). Importantly, the relationships between gender and the pre-test measures were all non-significant indicating that the gender of respondents was not related to levels of identification (team or gender) or to ratings of leader effectiveness.

Table 5.2

Descriptive Statistics and Correlations for the Pre-test Measures⁶

<i>Variables</i>	<i>Mean</i>	<i>SD</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
1. Gender	-.07	1.00	-.12	-.29	.16	.09
3. Leader effectiveness	4.59	1.69			.63***	.48**
4. Team identification	5.27	1.42				.39*
5. Gender identification	4.52	1.44				-

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

Note. Due to missing data, the correlations included different sample sizes. For gender, -1= females, +1= males. Leader effectiveness, team identification and gender identification were assessed on a 7-point scale.

Descriptive statistics for the post-test measures. Table 5.3 displays the means and standard deviations for the post-test measures by condition. The means for the dependent variables were above the midpoints of the scales in both conditions suggesting that, overall, followers (a) favourably rated their leaders (in terms of leader-proximity and predicted performance) and (b) indicated self-efficacy for leadership. The following hierarchical regression analysis tests whether condition, gender and team identification and their interactions predicted the dependent variables while accounting for leader effectiveness as a control variable.

⁶ Additional analysis tested whether the random allocation of participants to stereotype threat and control conditions correlated with the pre-test measures. The analysis found that condition was not significantly correlated with leader's effectiveness ($r = .28$), team identification ($r = -.03$) and gender identification ($r = -.02$) where condition was coded as -1 for no threat and +1 for stereotype threat.

Table 5.3

Descriptive Statistics for the Post-Test Measures

<i>Variables</i>	<i>No-threat</i>		<i>Stereotype threat</i>	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
1. Leader-follower proximity	4.22	1.61	4.60	1.06
2. Predicted performance	4.83	1.71	5.45	.98
3. Followers' self-efficacy	5.55	1.36	5.00	1.41

Note. Due to missing data, the scores are based on different sample sizes. All variables were assessed on a 7-point scale.

5.5.2 Hierarchical Regression Analysis

The analysis included a separate five-step hierarchical regression analysis for each outcome variable (leader-follower proximity, predicted performance and self-efficacy) to test the main effects of condition (no-threat or stereotype threat), gender (male or female) and their interactions including each moderator (gender identification or team identification). The model used leader effectiveness as the control variable. The analyses relied on centred scores for leader effectiveness and for the predictors, team identification and gender identification. The codes for condition were -1 for no-threat and +1 for threat, and for gender the codes were -1 for females and +1 for males. The first step tested leader effectiveness followed by gender, condition and one of the moderators in the second step. As a primary interest of the analysis, the third step tested the interaction between condition and gender, allowing an examination of how this interaction contributed to the explained variance indicated by R^2 . The fourth step included the rest of the two-way interaction terms, followed by the three-way interaction as the fifth step.

As in Study 1 and Study 2, the analysis of gender identification revealed no significant effects (see the results for gender identification in Appendices 15-17).

5.5.2.1 Team Identification.

Leader-follower proximity. Over and above the significant effect of the leader's effectiveness, the interaction between condition and gender resulted in a significant increase in the explained variance (Table 5.4). The interpretation of this interaction included graphing (Figure 5.1) and simple slope analysis (Aiken and West, 1991). Condition negatively related to leader-follower proximity for females, $\beta = -.38$, $t=2.67$, $p=.009$; however, it was not significant for males, $\beta=.18$, $t=1.21$, $p=.23$. For females, leader-follower proximity ratings were lower under stereotype threat relative to the no-threat condition. For males, there was no significant difference between ratings under threat and those reported in the no-threat condition. This result confirmed the finding in Study 2 regarding the downgrading of female leaders among female followers. However, the non-significant three-way interaction did not confirm the findings in Study 2 concerning the moderating role of team identification.

Table 5.4

Hierarchical Regression Predicting Leader-Follower Proximity (N=38)⁷

Step	Variables	R^2	R^2 change	$\beta 1$	$\beta 2$	$\beta 3$	$\beta 4$	$\beta 5$
1	Leader's effectiveness	.57***	.57***	.76***	.68***	.62***	.69***	.66***
2	Condition	.60	.03		-.12	-.10	-.14	-.15
	Gender				-.14	-.22	-.18	-.18
	Team identification				.10	.18	.12	.11
3	Condition* Gender ⁸	.68*	.08*			.29*	.28*	.27*
4	Condition *Team Identification	.70	.02				-.10	-.17
	Gender*Team identification						-.15	-.25
5	Condition*Gender* Team identification	.71	.01					.15

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

⁷ The analysis excluded two female participants in the no-threat condition with studentized residuals above -2.40 and Cook's distance of .12, exceeding the critical value of .11 for the sample of 40, computed as $4/n-1$. The condition*gender interaction was not significant with the inclusion of these cases. The analysis excluded another case due to missing data.

⁸ When entered simultaneously with the rest of the two-way interactions, the unique contribution of the condition*gender interaction remained significant ($\beta = .25$, $p < .05$), while R^2 was not significant.

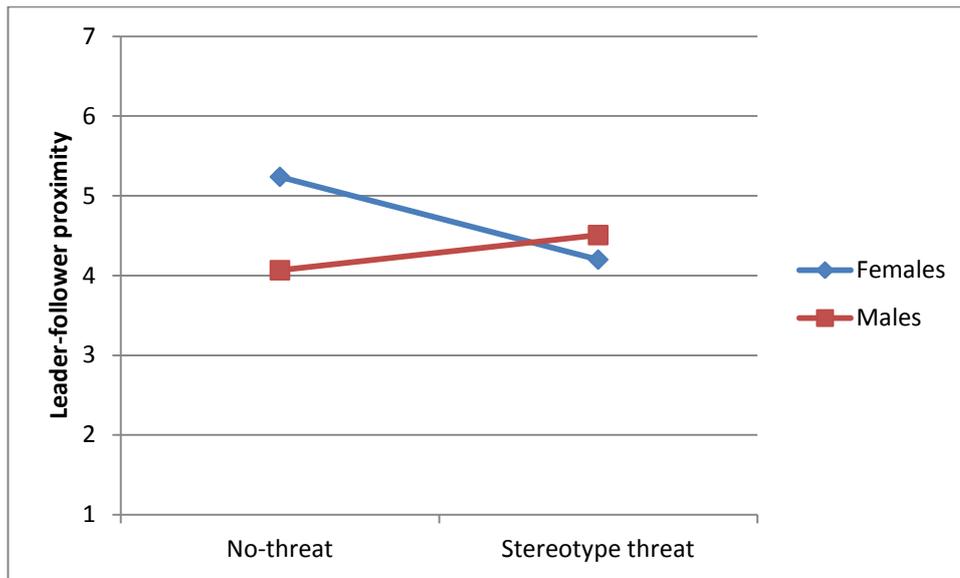


Figure 5.1. Interaction between gender and condition in relation to leader-follower proximity.

Predicted performance. As with the results for leader-follower proximity, leader effectiveness in step 1 was a significant positive predictor of leader's predicted performance (Table 5.5). The main effects of condition, gender and team identification were not significant but the interaction between condition and gender was marginally significant. The interpretation of this interaction included graphing (Figure 5.2) and simple slope analysis. Experimental condition non-significantly related to performance for females, $\beta = -.18$ $t=1.40$, $p=.17$; and for males, $\beta = .21$ $t=1.32$, $p=.19$. However, further analysis revealed that gender marginally related to performance under stereotype threat, $\beta = .25$ $t=1.84$, $p=.074$ but did not significantly predict performance in the no-threat condition. As depicted by the graphing of the interaction, under stereotype threat, predicted leader performance ratings in the female leader-follower teams were marginally lower than in the male leader-follower teams. Team identification did not moderate the effects of stereotype threat on predicted performance.

Table 5.5

Hierarchical Regression for Predicted Leader Performance (N=39)⁹

Step	Variables	R ²	R ² change	β_1	β_2	β_3	β_4	β_5
1	Leader's effectiveness	.63***	.63***	.79***	.76***	.69***	.69***	.73***
2	Condition	.66	.03		-.03	.01	.02	.03
	Gender				.11	.05	.04	.05
	Team identification				.13	.20	.36	.37
3	Condition*Gender	.70	.04			.20	.23*	.23*
		p=.055	p=.055			p=.055		
4	Condition*Team identification	.71	.01				-.21	-.14
	Gender*Team identification						.03	.11
5	Condition*Gender*Team identification	.73	.02					-.13

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

⁹ The analysis excluded a male participant in the no-threat condition with studentized residuals of -3.71 and a Cook's distance of .61. Including this case increased the magnitude of the condition*gender interaction in step 3, $\beta=.31$, $t=2.53$, $p=.01$

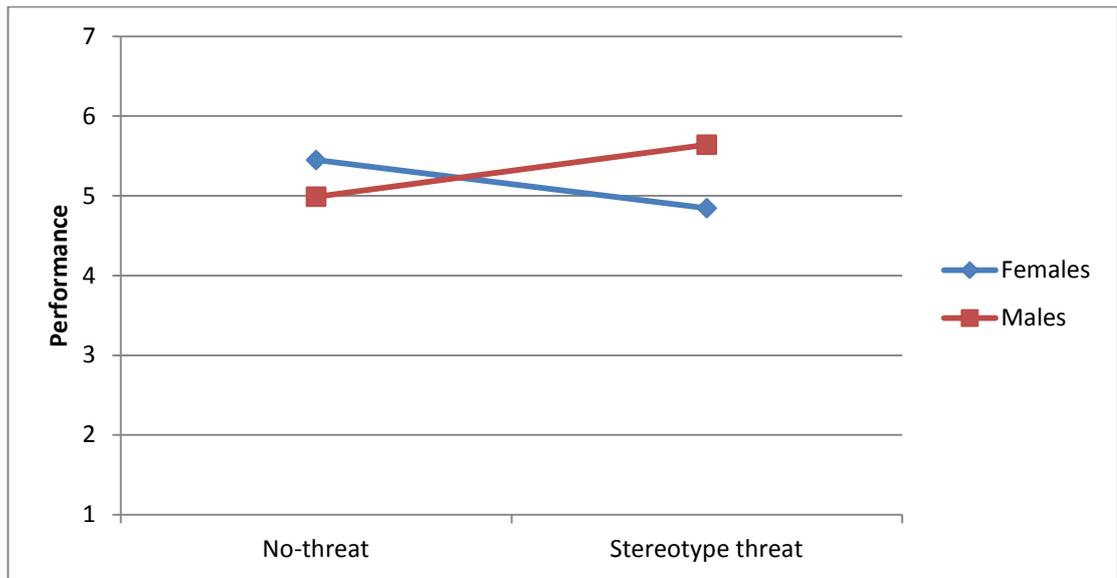


Figure 5.2. Interaction between gender and condition in relation to predicted leader performance.

Followers' self-efficacy for leadership. Follower's assessment of their leader's effectiveness prior to exposure to the experimental manipulations was a marginal positive predictor of follower's self-efficacy for leadership. However, over and above this factor, the interaction between team identification and condition was significant (Table 5.6). The interaction was graphed (Figure 5.3) and simple slope analysis showed that condition significantly related to self-efficacy for high team identifiers, $\beta = -.54$, $t=2.73$, $p=.01$; however, it was not significant for low team identifiers, $\beta = .16$, $t=.83$, $p=.41$. Among high team identifiers, self-efficacy was significantly lower under threat than in the no-threat condition, while among low team identifiers the difference was not significant. In sum, stereotype threat had a negative impact on high team identifiers' self-efficacy for leadership.

Table 5.6

*Hierarchical Regression Predicting Followers' Self-efficacy for Leadership
(N=41)*

Step	Variables	R^2	R^2 change	$\beta 1$	$B 2$	$\beta 3$	$\beta 4$	$\beta 5$
1	Leader's effectiveness	.09 p=.06	.09 p=.06	.30 p=.06	.13	.17	.10	.07
2	Condition	.17	.08		-.17	-.19	-.15	-.16
	Gender				-.12	-.09	-.15	-.16
	Team identification				.29	.24	.68*	.69*
3	Condition* Gender	.19	.03			-.17	-.10	-.10
4	Condition *Team identification	.36*	.16*				-.46*	-.53*
	Gender*Team identification						.18	.11
5	Condition*Gender* Team identification	.37	.01					.12

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

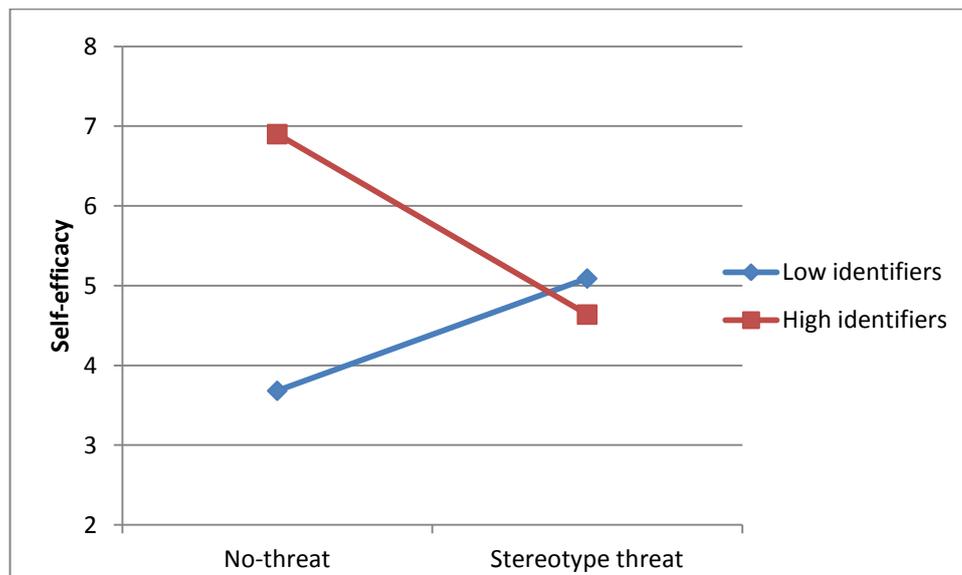


Figure 5.3. Interaction between condition and team identification in relation to follower' self-efficacy for leadership.

5.6 Discussion

The results showed that the interaction between condition and gender was significant for leader-follower proximity. Female followers indicated significantly lower proximity with their female leaders under stereotype threat compared with the no-threat condition. For males, this difference was not significant. The interaction between condition and gender was marginally significant for predicted performance; under stereotype threat condition, the ratings among females were marginally lower than among males. The interaction between condition and team identification was significant for followers' self-efficacy. However, while team identification positively related to self-efficacy, an opposite relationship emerged under conditions of stereotype threat: high team identifiers reported lower self-efficacy under stereotype threat than in the no-threat condition. In contrast to Study 1 and Study 2, the analysis found no evidence for the moderating role of team identification on any of the outcome measures. Additionally, as in Studies 1 and 2, there was no evidence of moderation by gender identification.

The outcome measures were significantly affected by the perceived effectiveness of the leaders during the team discussion. Leader effectiveness was a positive predictor of leader-follower proximity and predicted leader performance. That is, the more effective the leaders were perceived prior to the committee meeting, the higher leader-follower proximity and predicted performance ratings. However, the significant interaction between gender and condition emerged over and above the effects of leader effectiveness.

The results in Study 3 for females in terms of leader-follower proximity were consistent with the findings for the ratings of the leaders' actual performances in Study 2. In Study 3, in terms of leader-follower proximity, female followers distanced themselves from female leaders under stereotype threat compared with the no-threat condition. Based on the need for positive social identity (Tajfel and Turner, 1979) and collective threat research (Cohen and Garcia, 2005), distancing among females in response to threat implies a motivation to maintain a positive social identity. In Study 3, the committee meeting constituted a task that was more similar to leader roles in organizations than the presentations in Studies 1 and 2. Thus, Study 3 enhanced the extent to

which one may generalize the findings for organizational practice. Both Studies 2 and 3 provide evidence of female followers' negative attitudes toward female leaders in response to stereotype threat. Such attitudes have important practical implications for designing effective mentorship programs and for the development of female leaders in organizations.

Study 3's results in terms of leader-follower proximity confirmed the findings of Study 2 regarding the moderating role of gender in followers' ratings of their same-sex leaders' performance. Study 3 found that while female followers distanced themselves from female leaders under stereotype threat relative to the no-threat condition, leader-follower proximity among males was not different in the two conditions. While such outcomes do not clearly indicate solidarity among males, the absence of distancing is apparent, which suggests that male leaders had an advantage over female leaders in terms of leader-follower relations with their same-sex followers under stereotype threat.

Stereotype threat also negatively affected high team identifier followers' self-efficacy for leadership. This result has organizational implications suggesting that high team identifiers may stay away from leadership positions when made aware of the negative implications of their gender for leadership skills. Thus, negative gender stereotypes pertaining to one's leader may interfere with positive outcomes for the team in terms of high team identifier followers' willingness to participate in leadership roles. Importantly, the impact of stereotype threat on self-efficacy did not differ as a function of gender. Given that leader-follower relations were in the context of same-sex teams in Study 3, it is impossible to argue that team identification processes were not also linked with shared gender category. As the gender-based stereotype threat explicitly refers to gender, the results in study 3 may indicate an interplay between gender-based stereotype threat and team identity with implications for followers' self-efficacy to participate in leadership.

Study 3's design established a context (the leader's representation of shareholder groups in a committee meeting) that was comparable with the work circumstances in corporate organizations. However, it relied on an undergraduate student population, which has some limitations on the extent to which one may generalize the results to organizations. In the undergraduate

context, leaders-followers relationships are more peer-based when compared with leader-follower relations in the workplace, which include differences in status, pay and resources. In the classroom, therefore, leadership skills and gender-based leadership stereotypes may relate differently from that in formal organizations. Building on the design, method and results of the student studies, the next step in this research programme (Study 4) investigates the implications of stereotype threat on leader-follower relations among employees of corporations.

Chapter 6 Study 4

6.1 *Introduction*

Study 4 extended the research programme from undergraduate student samples to a corporate sample. Leader-follower relationships in corporations involve differences in status, influence and resources, as compared to the peer relations in undergraduate student project teams. In corporations, leaders have considerable impacts on the lives of their subordinates (followers) including pay, benefits, career and training opportunities, and the allocation of responsibility. Such leader influences were not relevant in the undergraduate student teams studied in this thesis. Due to such differences between corporations and undergraduate student populations, gender stereotypes could affect leader-follower relations differently in the two contexts. Thus, expanding the scope of research to a corporate sample provides the opportunity to test the findings of the student studies in organizations.

Study 4 aimed to examine the effects of gender-based stereotype threat on leader-follower relationships in organizational teams. This objective posed three main challenges. First, the research had no opportunity to study teams in the context of literally doing everyday work or to include an experiment in organizations with ad-hoc teams. To overcome this challenge, Study 4 used an online experiment that requested respondents to select an effective leader from their professional work life. To reinforce the salience of team identity, respondents were requested to provide demographics about the team they were part of during the leadership of their selected leader. The second challenge included the invention of a task comparable to the tasks in the student studies as the basis of the leader ratings. The performance task in Study 4 involved the leaders as representatives of their teams in a hypothetical company meeting with executives to discuss past achievements and the future of the teams. This task matched the leadership tasks in the preceding studies in terms of the leader's role of performing on behalf of and representing their followers.

The final challenge related to the ethical procedures and stereotype manipulations in the study. The lack of face-to-face contact between the respondents and experimenter had implications for the legitimacy of the

manipulations and for debriefing. To overcome this challenge, the manipulations involved respondents reading published media articles on gender and leadership skills. That is, in contrast to the student studies using fabricated information, Study 4 used authentic articles to legitimize the manipulations in the eyes of the respondents. Using published articles did indeed help with debriefing because the articles highlighted the real presence and implications of gender stereotypes in the leadership domain.

Study 4 relied on a mixed-gender context due to the widespread use of mixed-gender teams in corporations. Thus, the design in Study 4 resembled the design in Study 2, allowing for an exploration of the differences between male and female followers in terms of attitudes toward female and male leaders in responding to stereotype threat.

Study 4 expanded the dependent measures assessed in Study 3 to include a text response to the manipulations, the perceived skills of the leader and feelings regarding the leader's performance. The text responses gave insights into respondents' thoughts on the articles favouring their own or the opposite gender category in leadership roles, while the measures for skills and feelings elucidated more about participants' predictions of their leaders' performances.

6.2 Aims of Exploration and Testing

Study 4 examined leader-follower relationships in terms of distancing from/closeness with the leader as a response to stereotype threat. Based on the findings of the student studies, Study 4 applied a design to elaborate on: (a) female followers' attitudes toward female leaders; (b) female followers' attitudes toward male leaders; and (c) male followers' attitudes toward both male and female leaders when the leaders' genders were under threat relative to the control condition. Further, Study 4 retested the moderating role of team identification regarding attitudes toward the leaders as found in Study 2; i.e. high identifiers showing solidarity with male leaders when males were threatened relative to when the stereotype favourably related to males. Additionally, Study 4 retested the finding in Study 3 that high team identifiers indicated lower self-efficacy as a response to stereotype threat.

6.3 *Methods*

6.3.1 *Participants*

The respondents were employees of companies in partnership with a consulting company providing services in leadership training and research in the private sector, including HR, IT, legal and financial services and the sports industry. Fifty-one respondents completed the full online study (82 attempted). One participant misunderstood the instructions and selected a non-effective leader (as indicated by leader effectiveness ratings as a double check on respondents' selection of effective leaders), which left 50 responses for analysis. Eighty-six percent of the respondents were between 31 and 55 years of age, with only 4% of respondents less than 30 years and 10% older than 55 years (see Appendix 18 for specific percentages in each category). The respondents' education level ranged from GCSE to doctoral degrees with the majority (75%) having bachelor's and master's degrees. Two-thirds of the sample was full-time employees who had been in permanent positions in their current organization for at least one year with the rest of the sample having contract status. The majority of the respondents (70%) held some type of leadership position, ranging from team leaders and managers to directors. Therefore, the sample included diversity in terms of education and work experience.

6.3.2 *Materials*

Study 4 utilised an online experimental study containing pre-test measures, stereotype threat manipulations and post-test measures. The research section of the consulting company's official website displayed a web-link to the experimental study with an invitation to complete the questionnaire. Respondents read the invitation, clicked on the link to the study and answered the questions.

6.3.3 *Design*

The online software allowed the random allocation of respondents into stereotype threat and control conditions based on the gender of each respondent's selected leader, resulting in a 2x2x2 design (Leader gender: male or female) x (Follower gender: male or female) x (Leader gender condition: control or stereotype threat). Due to the nature of gender threat (where a threat

to one gender implies an advantage to the opposite gender) and as in the three previous studies, when the leader's gender was under stereotype threat, followers sharing the leader's gender category were in the stereotype threat condition for gender. On the other hand, followers with the opposite gender were in the stereotype advantage condition for gender. As in the previous studies, being represented as a team by their leader had further implications for the relevance of threat to the followers. For example, while male followers are advantaged in terms of gender when stereotype threat applies to females, such threat indicates that a female leader might be a poor performer which could interfere with the positive distinctiveness of the team. Thus, male followers may worry that their female leaders might confirm a negative female stereotype, which could negatively reflect on the team overall. Tables 6.1 and 6.2 summarize the conditions separately for female and male leaders, including the number of participants.

Table 6.1

Condition by Follower Gender for Female Leaders (n=17)

<i>Follower gender</i>	<i>Leader gender condition</i>	<i>Follower's condition</i>	<i>n</i>
Female	Threat	Threat	5
Male	Threat	Advantage	5
Female	Control	Control	6
Male	Control	Control	1

Table 6.2

Condition by Follower Gender for Male Leaders (n=33)

<i>Follower gender</i>	<i>Leader gender condition</i>	<i>Follower's condition</i>	<i>n</i>
Female	Threat	Advantage	4
Male	Threat	Threat	11
Female	Control	Control	10
Male	Control	Control	8

6.3.4 Procedure

The lead-in to the study invited respondents to take part in research focusing on leadership and teams. The invitation avoided disclosing the real content and purpose of the study as part of the experimental design. After reading the invitation, respondents could click on a link and begin the study (see the invitation in Appendix 19).

In the first section of the study, respondents answered demographic questions about themselves including age, gender, current position etc. The second section instructed respondents to think through the different team leaders they had encountered in their professional working lives and to pick one effective team leader. The instruction specified that “team leader” meant an individual to whom the team immediately reported to. Asking respondents to choose an effective leader reduced the variance in terms of the qualities of the leaders, which made the leaders more comparable for analysis. The respondents also provided demographic information about the leader they selected, including the gender of the leader. To minimize the risk that the respondents would be alerted to the key variable of focus in the study, i.e., the leader’s gender, the respondents were asked to provide a range of demographic information relating to the leader (e.g. age, length of appointment etc).

For the pre-test measures, the respondents provided information in terms of three variables. First, they rated the effectiveness of the leader – this measure double-checked that perceptions of leader effectiveness was both high and relatively similar among participants. Second, the respondents provided information on the demographics of the team attached to their selected leader and indicated the extent to which they identified with that team. Third, the respondents answered a gender identification question. To avoid making gender salient prior to the manipulations, gender identification consisted of one question item located among other question items. These items requested respondents to describe themselves in terms of several statements, such as “My role at work is important in how I see myself” and “The people I work with contribute strongly to my self-definition”.

Stereotype threat manipulation. The third section of the experiment implemented the stereotype threat manipulations. To provide respondents with a “randomly” chosen article, they clicked on a number between 1 and 19, believing that a single article was connected with each number. This procedure minimized the risk of the respondents thinking that they had been directed to a specific article. After clicking on a number, the respondents read one article. Which article they read depended on respondents’ random allocation into stereotype threat and control conditions at the beginning of the study after they had revealed the gender of their selected leaders.

Instead of fictional abstracts, respondents in Study 4 read published articles and received no additional information to explain gender differences in terms of gender stereotypes. Respondents with a female leader in the stereotype threat condition read an article proposing that females on boards have a negative impact on the performance of FTSE companies (Judge, 2003). Respondents with male leaders read a different article suggesting that females have superior leadership skills compared with males (Sharpe, 2000). In the control condition, the respondents read an article on the role of leadership and the green agenda (Thompson, 2010).

The final section of the questionnaire contained the post-test measures. After reading the articles, the respondents provided a text response to the article. Next, respondents read that at times leaders need to perform on behalf of and to represent their teams in organizations and such representation is an important aspect of leadership. Respondents imagined a hypothetical scenario in which their leader represented the team in a company meeting to discuss the past achievements and future opportunities of the team. The instruction suggested that the meeting would be challenging and that the leader’s performance would have consequences for the future of the team.

To keep the gender of the selected leader salient, before completing the dependent items, the respondents were instructed to indicate the gender and the formal position of their chosen leader. The latter question minimized the risk of respondents thinking that the first question aimed to remind them of their leaders’ gender. After answering the dependent question items, the

respondents were thanked for completing the study and received a debriefing with a short reading prior to submitting their answers.

6.4 Measures

6.4.1 Pre-test measures

All attitudinal measures used 7-point Likert scales with answer choices ranging from “Not at all” to “Extremely.”

Leader demographics. The respondents indicated their leader’s gender, age, formal position (team leader, manager, senior manager or executive) and length of assignment, as well as the frequency of contact they had with the chosen leader. Two-thirds of the selected leaders were managers and senior managers with at least eight months in their position during the time they acted as leaders for the respondents. Respondents had contact with their leaders at least 2 to 3 times each week.

Team demographics. Several items focused on the characteristics of the team headed by the selected leader. These items asked respondents to indicate the number of employees in the organization, the length of time the respondents spent in the team, the number of individuals in the team and the gender ratio in the team. Finally, the respondents described their role in the team in a text response. The demographics indicated that the teams had 6 to 15 members in fairly large companies of over 150 employees. Table 6.3 shows that the great majority of the teams (94%) were mixed-sex teams. Three teams were single-sex; one included only males and two teams included only females as team members.

Table 6.3

Number of Respondents by Gender Ratio of Teams¹⁰

<i>All males</i>	<i>75% males</i>	<i>50-50</i>	<i>75% females</i>	<i>All females</i>	<i>Total</i>
1 (2%)	19 (38%)	15 (31%)	12 (25%)	2 (4%)	49 (100%)

¹⁰ The summary excluded one male respondent with a male leader for missing data in terms of gender ratio of teams.

Gender identification. As the previous section indicated, Study 4 used one item to measure gender identification. The item was “Being a man/woman is an important part of my self-image” (Schmader, 2002). High scores indicated strong identification with gender.

Leader effectiveness. The respondents completed the same leader effectiveness scale (Fielding and Hogg, 1997) that participants answered in Study 3 to double check that the selected leader was effective. An example item was: “The leader was effective at influencing the team”. The seven items formed a reliable scale ($\alpha=.85$). High scores indicated follower perceptions of high leader effectiveness.

Team identification. The team identification measure contained six items. One item measured general identification with the team: “In general I was pleased to be a member of this team”. A second item measured identification with other members of the team (“I identified with other members of the team”). Four items taken from Mael and Ashforth’s (1992) organizational identification scale measured the affective aspects of identification. The average of the scores for the six items formed a reliable scale ($\alpha=.87$), with high scores indicating strong identification with the team lead by the selected leader.

6.4.2 Post-test measures

Text responses. Respondents provided a text response to the content of the article used as the experimental manipulation with regard to thoughts and ideas that emerged while reading it.

Leader-follower proximity. As in Study 3, the leader-follower proximity measure, based on the conceptual closeness of the constructs, consisted of prototypicality, identification with the leader, collective threat and pride in being similar to the leader. Prototypicality was assessed with three items (van Knippenberg and van Knippenberg, 2005); an example item was, “The leader is a good example of the kind of people in our team.” For identification with the leader, one item measured general identification: “I would identify with my leader in this company meeting”. Two other items measured the affective components of leader identification based on Mael and Ashforth’s scale (1992).

These items were: “If someone criticized my leader, it would feel like a personal insult” and “If someone praised my leader it would feel like a personal compliment”. Based on Cohen and Garcia’s measure (2005), one item assessed collective threat: “I would worry if others thought that my team had similar skills to my leader”. Similarly, one item measured collective pride: “I would feel proud if others drew conclusions about my team based on my leader’s performance”. The average of the eight items for the four constructs formed a composite measure of leader-follower proximity ($\alpha=.81$). Low scores indicated distancing and high scores indicated closeness to the leader.

Leader performance. Three items measured leader performance: “My leader would perform well in the meeting”, “My leader would achieve the goals of our team in the meeting” and “My leader would perform poorly in the meeting”. After recoding the final item, the average of the three items formed a composite measure ($\alpha=.71$). High scores indicated that followers predicted the leader to perform highly in the company meeting.

The leader’s perceived skills in the meeting. In addition to the measures in Study 3, six items measured skills that should be deemed important for leaders when representing their teams in a meeting such as that described in the hypothetical scenario. The first item assessed the leader’s skills in representing the team at the company meeting, and the remaining five items measured the leader’s abilities to “get the team’s goals across”, “to communicate with the executives”, “to argue for the benefit of the team”, “to influence others in the meeting” and “to make decisions for the team in the meeting”. The average of the six items were formed into a scale ($\alpha=.87$), with high scores indicating that the leader was perceived to possess strong skills for success in the company meeting.

Feelings regarding the leader’s performance. To assess followers’ feelings regarding their leader’s performance, respondents indicated how confident, positive, optimistic, concerned, worried and threatened they would feel about having the leader represent the team in the company meeting. After recoding the items relating to being concerned, worried and threatened, the six items

were averaged to form one scale ($\alpha=.80$). High scores indicated positive feelings regarding the leader's performance in the meeting.

Self-efficacy for leadership. As in Study 3, Study 4 measured the respondents' self-efficacy for leadership according to four items based on a scale developed by Murphy (1992). An example item is, "I would be willing to represent my team in the meeting". The average of the four items formed a reliable scale ($\alpha=.91$), with high scores indicating high self-efficacy for leadership.

6.5 Results

6.5.1 Preliminary analysis

Leader effectiveness. The preliminary analysis identified one male respondent with a male leader as an outlier with a score of 2.57. This low value indicated that, based on the criteria for leader effectiveness outlined in the measure of Fielding and Hogg (1997), this leader was not effective. Accordingly, the analysis omitted this respondent's responses. The average of the rest of the scores was above the midpoint of the scale ($M=5.79$, $SD=.85$), confirming that the selected leaders were effective and there was a small variation in the scores.

The relationships between leader gender, follower gender and the pre-test measures. Table 6.4 summarizes the descriptive statistics for leader gender, follower gender, leader effectiveness, team identification and gender identification and the correlations of these variables. The correlations showed that both follower and leader gender negatively related to gender identification. Given that the gender category was scored as -1 to indicate female and +1 to indicate male, the correlations indicated two points: first, female respondents identified more highly with their gender category than did male respondents. Second, respondents choosing female leaders identified more strongly with their gender category than respondents choosing male leaders.

Table 6.4

Descriptive Statistics and Correlations for the Pre-test Measures

Variable	M	SD	2.	3.	5.	4.
1.Follower gender	.00	1.01	.21	.03	.02	-.41**
2. Leader gender	.32	.96		-.14	-.01	-.28*
3. Leader's effectiveness	5.79	.85			.50***	-.11
4. Team identification	5.55	.88				-.16
5. Gender identification	4.08	1.78				-

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

Note. Due to missing data, the correlations included different sample sizes. For follower gender and leader gender, -1= females, +1= males. Leader effectiveness, team identification and gender identification were assessed on a 7-point scale.

Independent sample t-tests examined whether there was any difference in followers' gender identification levels between those who chose a male as compared to a female leader. Female respondents choosing female leaders ($M=5.36$, $SD=1.50$) identified more strongly with their gender than those choosing male leaders ($M=4.36$, $SD=1.50$); however, this difference only approached significance, $t(25) = 1.66$; $p = .11$. The difference for male followers ($M=3.67$, $SD=.18$ and $M=3.26$, $SD=1.72$, respectively) was not significant, $t(25) = .47$, $p = .65$. As in Study 3, leader effectiveness significantly correlated with team identification, indicating that high team identification was positively associated with high leader effectiveness.

Chi-square analysis tested the relationship between follower gender and the gender of the chosen effective leader¹¹. Respondents selected a significantly higher number of male leaders ($n=32$) than female leaders ($n=15$); $\chi^2 = (1, N = 47) = 6.15$, $p < .05$. However, further analysis revealed that while male respondents selected a higher number of male leaders ($n=18$) than female

¹¹ This analysis excluded three participants whose answers to the team demographic questions indicated that their teams were single-sex.

leaders ($n=6$), $\chi^2 = (1, N = 24) = 6.00$, $p > .01$, for female respondents, the difference between the selection of male leaders ($n=14$) and female leaders ($n=9$) was not significant. These results indicating that male respondents, by selecting mainly male leaders, are in accord with expectations based on role congruity theory, suggesting that males in general perceive male leaders as more effective relative to female leaders (Eagly et al., 1992). However, for female followers this preference for male leaders was not evident, which suggests that the gender of the respondents was an important predictor of the selected leader's gender only for male respondents¹².

Means and standard deviations of the post-test measures. Table 6.5 displays the descriptive statistics for the post-test variables. The mean scores and standard deviations indicate that respondents rated the leaders above the midpoint of the scales.

Table 6.5

Descriptive Statistics for the Post-test Measures (N=50)

<i>Variable</i>	<i>M</i>	<i>SD</i>
1.Leader-follower proximity	5.41	.80
2.Predicted performance	6.16	.81
3.Skills	6.17	.72
4Feelings	5.94	.82
5.Self-efficacy	5.63	.93

Note. Each variable was assessed on a 7-point scale.

6.5.2 Text Responses

Female respondents. The text responses indicated that female participants responded differently when females were described negatively compared to

¹² The team demographics indicated that the gender composition of the teams varied across the sample. Because there were unequal number of male and female respondents in the different categories of gender composition of teams, the preliminary analysis excluded any further tests to examine how the chosen leader's gender related with the gender composition of the teams.

when males were described (Appendices 20 and 21). Four out of five female respondents (80%) disagreed with the article proposing that female leaders hinder the performance of FTSE organizations. When the article described females negatively, two respondents (top two responses in Appendix 20) clearly rejected the idea that gender and leadership success are related. The third response in the same condition suggested that women might be set up to fail in leadership roles. This notion is in accord with the 'glass cliff' effect (Ryan and Haslam, 2005), suggesting that women take on precarious leadership positions more often than men. The fourth response in this condition suggested that when organizations become open to female leaders, organizational success should follow, thus, this response also implied the rejection of the article that negatively described female leaders. The final response stated: "despite being a woman the job needs to go to the best person", thus directing attention away from the leader's gender and towards a focus on performance. Only one response out of the five did not clearly disagree with the article negatively portraying female leaders in top companies while the rest, particularly the top three responses indicated a strong rejection of the article.

However, when the article described males negatively, the responses of the female respondents indicated agreement with the article (Appendix 21). Three of the four female respondents (75%) openly agreed with the article that suggested that females make better leaders than males, while one respondent refuted the article as false generalization.

Male respondents. Similarly to females, the four male respondents with female leaders rejected the article negatively portraying female leaders (Appendix 22). Two respondents argued that females on boards make a positive contribution by offering a uniquely different approach from male board members. The other two respondents criticized the article more for the fallacy of its argument.

When the article targeted males negatively, nine male respondents out of ten (90%) responded that the article was a false generalization (Appendix 23). The male respondents gave no indication of believing that males make better leaders than females. Indeed, one respondent stated that female leaders are better than males leaders on average (response 9), and another respondent

indicated a motivation to change his leadership style to match qualities embedded in female leaders (response 11).

The text responses suggest that respondents (regardless of gender) negatively reacted to the article that criticized females on corporate boards. On the other hand, the majority (three out of four) of the female respondents supported the article that proposed that females make better leaders than males. The responses of female respondents indicated their desire to be seen as equal to as (or better than) males in terms of leadership skills. The male respondents, on the other hand, refuted both articles as making false generalizations and made no comments belittling the leadership skills of females.

6.5.3 Analyses for the Effects of Stereotype Threat

The low sample size did not allow for testing the three-way interaction between leader gender, follower gender and leader gender condition. The number of male respondents choosing female leaders was low ($n=6$). Random allocation assigned only a single male respondent to the control condition and five male respondents to the condition in which the article negatively described females. The number of respondents in the rest of the cells was higher but below the desired levels, which ideally should consist of 20 participants per cell (Simmons, Nelson and Simonsohn, 2011). The analysis included three tests that involved cells with adequate sample sizes. The first analysis focused on the ratings of male respondents for male leaders in control ($n=8$) and stereotype threat ($n=11$) conditions. The second analysis included the moderating role of team identification in terms of leader gender and condition on the ratings ($n=50$). The third analysis focused on followers' self-efficacy for leadership in terms of condition and team identification ($n=30$). The low sample size did not allow for testing the effects of stereotype threat on female followers' ratings for female leaders and the moderating role of gender identification.

6.5.3.1 Ratings by Male Followers for Male Leaders.

Independent sample t-test examined differences between the control and stereotype threat conditions for male respondents' ratings for their male leaders in terms of leader-follower proximity, predicted performance, skills and feelings.

This analysis aimed to retest the finding in Study 2 showing that among male followers the performance ratings for male leaders in response to stereotype threat were marginally higher than in the stereotype advantage condition. The differences were not significant for any of the dependent variables. These results were consistent with the findings in Study 2 in that male followers did not distance themselves from male leaders in response to stereotype threat relative to the control condition, however, there was no evidence for marginally higher ratings under threat compared with the control condition.

6.5.3.2 The Moderating Role of Team Identification.

Hierarchical regression analysis examined the moderating role of team identification to further test the findings in Study 2. Study 2 showed that high team identifiers favourably evaluated male leaders under stereotype threat compared with the advantage condition. The analysis used centred scores for team identification. The codes for the leader gender condition were -1 for control and +1 for stereotype threat and for leader genders -1 for females and +1 for males. The high scores for leader effectiveness indicated that the respondents perceived the leaders as effective, thus, the analysis excluded leader effectiveness, which increased the statistical power in the analysis.

The first step in the regression analysis included the leader gender condition, the leader's gender and team identification. The second step included the two-way interactions between leader gender condition, leader gender and team identification. The third step tested the three-way interaction of these variables. The sample size ($N=50$) for this analysis was comparatively lower than in Study 2's analysis ($N=64$), therefore, it also had lower statistical power. The results showed that team identification was a significant predictor of leader-follower proximity ($\beta=.63$, $p<.001$), predicted performance ($\beta=.32$, $p<.05$) and feelings ($\beta=.33$, $p<.05$). With the exception of these effects, no significant effects emerged for any of the predictors and the interactions (Appendices 24–27). Therefore, the results did not find evidence of Study 2's finding regarding the moderating role of team identification.

6.5.3.3 Self-efficacy.

Study 4 retested the moderating role of team identification based on Study 3's result that stereotype threat negatively affected high team identifiers' self-efficacy for leadership. Parallel to the design in Study 3 with single-sex teams, the analysis focused on data that corresponded with the gender match between leaders and followers. The first step in the regression model included condition and team identification, followed by the interaction term of these two predictors in the second step. Team identification emerged as a significant predictor (Table 6.6). The more strongly the respondents identified with their teams, the more self-efficacy for leadership they reported – a pattern similar to Study 3. However, the interaction term was not significant, thus, the results did not confirm the negative effect of stereotype threat on high identifiers' self-efficacy.

Table 6.6

Hierarchical Regression Predicting Followers' Self-efficacy for Leadership (N=29)¹³

Step	Variables	R ²	R ² change	β1	B2
1	Condition	.22*	.22*	-.18	-.18
	Team identification			.41*	.41
2	Condition*team identification	.22	.00		.02

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

The results did not find evidence that stereotype threat had an effect on self-efficacy in terms of team identification, in contrast to the undergraduate student sample in Study 3. A further analysis tested whether this gap might have resulted from differences in age/seniority status in the two samples. This final analysis retained the gender-match between leaders and followers. The analysis used age as a dummy coded predictor because originally this variable

¹³ The analysis excluded a male participant with a male leader in stereotype threat condition with studentized residuals of -3.30 and a Cook's distance of .31. Including this case reduced the magnitude of the effect of team identification in the first step, although it remained significant, β=.36, t=2.1, p<.05.

was ordinal representing eight age categories. The dummy coded variable omitted the highest age category (61-65) as the reference category against which the analysis assessed the effects of the other seven categories. In a hierarchical regression analysis, the first step included condition, the second step tested the dummy coded variable for the age of the respondents and the third step tested the interaction between these two variables. Appendix 28 summarizes the results. Condition (R^2 change = .03, $p > .05$) was not a significant predictor of self-efficacy. Age (R^2 change = .23, $p = .07$) was a marginally significant predictor, its effect is explained by the unique significant contribution of the 31-35 age category relative to the 61-65 age category ($\beta_1 = -.83$, $p < .05$). The negative relationship indicates that the respondents in the lower age category had lower self-efficacy for leadership than the respondents in the higher age category. The interaction of age and condition was not significant (R^2 change = .01, $p > .05$), thus, the analysis found no evidence to suggest that age moderated stereotype threat effects.

6.6 Discussion

The results in Study 4, using a corporate sample, did not find evidence for the impact of stereotype threat on follower's ratings for predicted performance of the leader, leader-follower proximity, perceived skills of the leader, feelings towards the leader or followers' self-efficacy for leadership. Importantly, however, as Study 4 lacked the sample size to increase statistical power to detect significant effects, thus it was not possible to rigorously test the findings from the studies with the undergraduate student samples.

Several key differences in the student studies and the corporate study could have led to different results regardless of statistical power. First, the first three studies involved students while the final study was conducted with employees of corporations, and thus there are important differences in the characteristics of two populations from which the samples were drawn. Second, in Studies 1, 2 and 3, the undergraduate students evaluated their current leader on a task that has perceived to have real implications for perceptions of their group's performance in an intergroup context of peers. In contrast, in Study 4 the respondents evaluated an effective leader in a hypothetical leadership scenario. These different methods were reflected in the leader effectiveness

scores in Studies 3 and 4; in Study 3 the leaders were seen as less effective than in Study 4.¹⁴ Third, the manipulations in Studies 1, 2 and 3 included bogus references to social science research as explanations for the gender gap, which might have resulted in a stronger impact on participants than the published articles in Study 4. That is, the respondents in Study 4 may have viewed the articles as a reflection of the subjective opinion of the writers. Finally, the corporate sample was more heterogeneous than the student sample in terms of age, education and position. In sum, beyond sample size, these could lead to different results of the student studies and the corporate study.

The different results between Study 3 and Study 4 in terms of followers' self-efficacy for leadership implies that in the corporate sample age is linked with seniority as senior people are more likely to be in leadership positions and/or have leadership experience. Thus, when people are more junior, or are soon to enter the workforce (as with the students), their self-efficacy for leadership is more likely to be influenced by peers. As a result, they are more vulnerable to stereotype threat that is directed toward a peer who has a leadership role within the team, as it was indicated by the findings in Study 3 with the undergraduate student sample.

While the post-test measures showed no significant effects, the pre-test measures and text responses revealed several results that reflected on the implications of gender stereotypes in leadership. The analysis found that the male respondents were more likely to select male leaders as effective, which supports expectations based on role congruity theory. However, the selection preference for male leaders was not found for the female respondents. Additionally, female respondents identified more highly with their gender category than did the male respondents. However, this heightened identification of females with gender was not statistically related with their selected leader's gender. The text responses gave an indication that the female respondents were more sensitive and reacted with threat when exposed to a negative female stereotype, while they reacted with agreement to positive female stereotypes in leadership. Such responses indicated that these stereotypes had more

¹⁴ In Study 3 ($M=4.59$, $SD=1.69$) leader's effectiveness was significantly lower than in Study 4 ($M=5.79$, $SD=.85$), $t(91) = 3.88$, $p < .01$.

implications for females' sense of self compared with males. As part of the text responses, three out of the five female respondents rejected the article proposing that females hinder the performance of top organizations. Further, three out of four female respondents clearly agreed that women make better leaders than males. The preliminary results suggest that for female respondents, gender was a salient matter from the outset of the study and they were motivated to demonstrate that female leaders can be just as effective as male leaders.

Chapter 7 Discussion and Conclusions

This thesis assessed the impact of gender-based leader stereotypes on follower's evaluation of, and responses to their own team leader. Drawing on a social identity analysis of leadership (e.g., Reicher et al., 2005) and collective threat research (Cohen and Garcia, 2005), exposure to a negative gender-based leader stereotype was proposed to bring about a negative response in followers due to fear of the negative stereotype of the leader reflecting on follower's social identities (i.e., via a shared team identity and/or a gender category). A four-study empirical research programme tested the impact of stereotype threat on followers' attitudes toward their leaders.

In Study 1, gender-based leader stereotypes cued threat for female leaders and advantage for male leaders. However, in the remaining studies (two student studies and the corporate study) the experimental manipulations included a threat condition for male leaders as well. This allowed an exploration of whether male and female leaders would face different or similar consequences when stereotype threat applied to their gender. On the basis of role congruity theory (Eagly and Karau, 2002) and stereotype threat research (Davies et al., 2005), it was predicted that threat responses would be more pronounced for team members with female leaders and/or for female team members. The following section provides a sequential overview of the four experiments, including rationale and findings. The chapter goes on to discuss the interpretation and implications of the main findings. Following a section which then reflects on the challenges of conducting this research, the chapter draws out the conclusions of this thesis in terms of its answers to the original research questions. The final section considers the implications of these conclusions for future research.

7.1 Summary of Studies

The stereotype manipulation in Study 1 drew attention to the positive stereotype of males relative to females in leadership roles, in accord with the perceived congruency of male and leader roles as articulated in role congruity theory (Eagly and Karau, 2002). Undergraduate students in mixed-gender teams were provided with information indicating that males have better presentation

communication skills than females, prior to rating team leaders' spoken presentations. The results showed that a shared team identity between followers and leaders (via a team identity) was an important predictor for how a leader was evaluated. Students gave higher ratings for the performance of their own team leaders (in-group leaders) as compared to that of other team's leaders (out-group leaders). Moreover, team identification positively related to the ratings of the in-group leader, a finding in accord with the social identity approach. However, the advantage conferred by sharing team identity was only evident for the male leaders: high team identifiers rated female leaders lower than male leaders. Thus, the findings suggest that if a leader is under stereotype threat (as was the case for those teams who had a female leader), then high team identifiers would downgrade the performance of the leader.

The nature of the manipulation in Study 1 limited the interpretation of findings: were the lower scores for the leader under threat due to the leader's gender or to being the target of a negative stereotype? In order to address this question, Study 2 expanded the manipulations to include male leaders. This method allowed an investigation of how followers rated male and female leaders' presentations when the leaders' gender was under threat as compared to advantage. As in study 1, stereotype threat manipulations drew attention to the dominance of one gender while implying a negative view of the opposite gender (rather than by derogating a gender). Prior to the leaders' presentations, participants read that either males or females were superior in presentation communication skills. Study 2 had three main findings.

First, high team identifiers favourably evaluated male leaders under threat relative to when males were advantaged, however, there was no difference between the two conditions for female leaders. That is, while male leaders benefitted from the ratings of high team identifiers under threat, female leaders saw no such benefit. Second, female followers favourably rated male leaders when males were under threat compared with the advantage condition. However, female followers downgraded female leaders when females were under threat relative to when there was an advantage for females. Thus, male leaders under threat benefitted from the favourable ratings of female followers, whereas female leaders did not and instead, actually received less favourable

support from female followers in terms of their ratings. Third, male followers gave marginally higher ratings when their leaders' gender was under threat than when their gender implied an advantage. That is, Study 2 found some evidence that male followers favourably evaluated both female and male leaders in response to stereotype threat relative to the advantage condition.

In Study 3, the leaders argued in favour of and aimed to achieve the goals of their teams in a committee meeting, a task that better compares with leader roles in organizations relative to the tasks in Studies 1 and 2. Study 3 used single-sex teams to more closely explore the findings in Study 2 in terms of the ratings for same-sex leaders. Study 3 also expanded the post-test measures to assess leader-follower relations in terms of leader-follower proximity (including identification with the leader, leaders' prototypicality and collective threat) in addition to predicted leader performance and followers' self-efficacy for leadership. For manipulations, the followers read that (a) individuals from the opposite gender make better leaders (stereotype threat), or (b) that there was no gender difference (no-threat). The results indicated that gender moderated the effects of stereotype threat on leader-follower proximity. Female followers rated female leaders lower under stereotype threat relative to the no-threat condition. For males, there was no evidence for distancing or for solidarity. The ratings for predicted performance indicated similar though weaker results. Study 3 demonstrated that stereotype threat negatively affected leader-follower proximity among females, while among males it had no negative implications. Study 3 further found that while team identification positively related to followers' self-efficacy for leadership, high team identifiers reported lower self-efficacy under threat than in the no-threat condition. That is, stereotype threat impeded the positive effect of team identification on followers' self-efficacy for leadership.

The findings in the student studies with regards to distancing from female leaders and high team identifier followers' reduced self-efficacy in response to threat indicated a need for real-life empirical research to conduct. Thus, in Study 4, the research programme was extended into the corporate environment. In an online experimental study, respondents selected an effective leader from their professional working life. For stereotype threat manipulations, respondents read a published article in the middle section of the study. In the stereotype threat

condition, when the chosen leader was female, the article proposed that females on boards have a negative impact on the performance of FTSE companies. When the chosen leader was male, respondents read that females have superior leadership skills compared with males. In the control condition, respondents read an article on the green agenda. Following the manipulations, respondents provided a text response regarding thoughts that emerged while reading the article. Finally, respondents provided ratings for their leaders in a hypothetical company meeting with executives to discuss the past achievements and future opportunities of the team. The dependent measures, in addition to the variables used in Study 3, included perceived skills of the leader and feelings about the leader's performance.

Although Study 4 lacked an adequate sample size to rigorously re-test the findings of the student studies, the analysis for the pre-test measures and text responses revealed several findings that reflected the inequality between males and females in the leadership domain. Two-thirds of the respondents chose a male leader when requested to select an effective leader. Importantly, this finding was moderated by the respondents' gender; the selection of male leaders was only evident for male respondents (75% chose a male leader) but not for female respondents (55% chose a male leader). The text responses following exposure to the experimental manipulation material indicated that male respondents refuted the article regardless of whether it proposed that males or females were better leaders. Female respondents also rejected the article that proposed that females hinder the performance of top organizations, however, when the article implied stereotype threat for males, three out of four female respondents agreed that females do indeed make better leaders than males.

7.2 Interpretation of the Findings

The following section outlines three main findings in the empirical chapters in terms of the above points with relevance for theory, organizational practice and future research. The first finding relates to how female followers rated male and female leaders in response to stereotype threat. Study 2 indicated that male leaders under threat benefitted from the ratings of female followers. However, female followers distanced themselves from female leaders under stereotype

threat in terms of ratings of the leaders' actual performance (Study 2) and leader-follower proximity (Study 3). The second finding relates to the moderating role of team identification. Study 1 showed that in the context of stereotypes favouring males, male leaders benefitted from the ratings of high identifiers while female leaders did not. Further, in Study 2, male leaders benefitted from the ratings of high team identifiers under threat relative to the advantage condition, although in contrast, team identification did not benefit female leaders in the same way. The third key finding was the effect of stereotype threat on the followers on self-efficacy for leadership. Study 3 showed that high team identifiers indicated less self-efficacy for leadership in response to stereotype threat relative to the no-threat condition. The following sections explore these key findings in greater depth.

7.2.1 Female Followers' Solidarity with Male Leaders and their Distancing from Female Leaders

Previous research demonstrated that compared with females, males (Eagly et al., 1995; Eagly et al., 1992; Wolfram et al., 2007) have relatively negative attitudes toward female leaders. One might expect that salient gender-based leader stereotypes would enhance male followers' negative attitudes toward female leaders. However, this research programme found that stereotype threat directed toward females resulted in more negative attitudes toward female leaders from female followers, but not from male followers. Additionally, Study 2 found that performance ratings from male followers for female leaders were marginally higher (i.e. approaching significance) under stereotype threat relative to when females had stereotype advantage.

The research programme in this thesis built on studies that examined the role of followers' gender (Eagly et al., 1995; Wolfram et al., 2007) and the followers' shared organizational identity, such as a team (Eagly, 2005) in prejudice against female leaders. The experimental design in this research programme explored the interplay between a shared team identity and gender category in terms of the leader's specific role as performing on behalf of and as a representative of the followers. In addition, the experiments in this research programme used explicit reference to indicate the superiority of one gender category over the other. These steps in the design allowed a careful exploration

of the impact of gender-based leader stereotypes in a context where leaders represented one's team and/or one's gender. This research programme found no evidence suggesting that male followers had more negative attitudes toward female leaders relative to female followers in response to threat. Therefore, when stereotype threat, shared team identity and gender category and the representation aspect of leadership were accounted for, followers' attitudes toward their female leaders showed a different pattern compared with those in the previous studies. In response to stereotype threat, female followers' attitudes towards female leaders became less positive, while male followers indicated no such changes relative to the comparative conditions.

The lower ratings of female leaders under stereotype threat conditions relative to the advantage and no threat conditions indicate that female followers distanced themselves from female leaders. Based on Cohen and Garcia's study (2005), one could argue that for female followers, collective threat emerged due to the concern that one's female leader's performance could potentially reinforce the negative view of females. Such concern was sufficient to trigger distancing, an attitude that according to Cohen and Garcia resembles the rejection of deviants as part of the black sheep effect (Marques and Paez, 1994; Marques et al., 1988). While female followers distanced themselves from female leaders in response to stereotype threat, in Study 2, they rated male leaders more favourably when males were under threat compared to when the stereotype positively related to males. That is, female followers differentially rated male and female leaders when stereotype threat applied to the leaders' gender. Thus, while male leaders benefitted from the ratings of female followers under threat, for female leaders, female followers meant an impediment in terms of the ratings.

In Study 2, when male leaders were under threat, female followers faced a threat to their team identity, although also saw an advantage to their gender category. One may argue that the advantage for their gender category provided additional psychological resources for female followers to cope with the threat directed toward their male leaders. Thus, stereotype threat for males mobilized female followers to show solidarity toward male leaders (i.e. female followers rated male leaders higher under threat than in the advantage condition).

However, when females were under threat, female followers faced a threat both to their team identity and gender category. Accordingly, it appears that this double threat interfered with female followers' positive response and resulted in their distancing from female leaders.

While female followers showed solidarity toward their own male leaders when males were under threat relative to when males were advantaged (Study 2), female respondents showed no solidarity toward males in general when the manipulations negatively described males (Study 4). In response to threat to gender categories, the research programme found an asymmetry between female followers' attitudes toward (a) their own female leaders and toward females in general, and (b) their attitudes toward their own male leaders and toward males in general. The combined overview of the results across the four studies suggests that female followers in response to stereotype threat distanced themselves from their female leaders but they maintained positive attitudes toward females in general in terms of their leadership skills. This interpretation resonates with the findings of Cohen and Garcia's study (2005) that showed that while females distanced themselves from the in-group member, they remained committed to their gender category in terms of positive stereotypes. However, further to this, taking together the results of Studies 2 and 4 suggests that when males are under threat, female followers can show solidarity toward their own male leaders, but may devalue males in general in terms of leadership skills.

In Study 2, the mixed-sex design implies that the potential stereotype confirming behaviour of the leader has implications for the acceptance of female followers as valued members of their teams. Stereotype threat directed toward females implies the risk of poor performance as a result of which the team may consider females as hindrances to the success of the team. Therefore, stereotype threat in a mixed-sex team also may trigger acceptance threat for the female followers because it can threaten the status of females in the team. Acceptance threat refers to the worry of being rejected as a valued member in a group one desires to be part of (Branscombe et al., 1999). Such worry implies that belongingness is threatened and individuals feel that they are not truly accepted and included in the group (Pickett and Brewer, 2004). Pickett and

Brewer argue that in response to acceptance threat, individuals re-define group boundaries in ways that ensure inclusion. For example, to enhance belonging, individuals engage in stereotyping out-group members, and importantly, derogating other in-group members who fail to maintain the distinctiveness of the in-group. The latter has relevance for female followers' downgrading of female leaders in response to stereotype threat in the present research programme. To ensure that the team accepts women as valued team members, female followers may expect positive representation from female leaders. The findings suggest that stereotype threat cast doubts on females' merit as core members of their teams, as a result of which female followers distanced themselves from female leaders, an act that enhances female followers' inclusion in their teams.

Female followers' differentiated ratings for male and female leaders should result from the relevance of threat to team identity and gender category. This thesis emphasises that the consequences of stereotype threat to the leader's gender depends on the interplay between followers' gender category and team identity. The social identity analysis of leadership drew attention to the importance of considering the threatening aspect of female leader stereotypes from the perspective of the followers. Accordingly, the consequences of stereotype threat targeting female leaders may result in three types of collective threat. First, in terms of gender category, stereotype threat reminds followers of generalized perceptions of relative incompetence of females in the leadership domain, as compared to males. As such, it threatens the positive distinctiveness of female followers relative to fellow male followers. In comparison, however, male followers are potentially advantaged by the stereotype. Second, stereotype threat for females can also cast doubt upon the entitlement of female followers to occupy central roles in the group, which may trigger feelings of acceptance threat for females within their teams. That is, female followers might feel vulnerable to being "pushed aside" as a result of stereotype threat to their female leaders. Third, in terms of followers' shared team identity, stereotype threat directed toward female leaders may interfere with the team's positive distinctiveness in comparison with members of other relevant teams as out-groups.

Implications. Overall, the results indicate that in the context of leader-follower relations, stereotype threat for female leaders may trigger the fear of social rejection for both the female leaders and the female followers. Such findings have implications for understanding the social consequences of stereotype threat. Shapiro and Neuberg (2007) suggest that stereotype threat arises from the individual's worry of confirming the stereotype in the eyes of in-group others. This implies that stereotype threat has negative consequences on how the group acts toward the in-group member in situations of stereotype threat. In line with collective threat research (Cohen and Garcia, 2005), the present thesis found evidence that social rejection is an important aspect of stereotype threat effects. Importantly, this rejection results not from being the direct target of the stereotype threat but from being made aware of the potential relevance of this stereotype to the performance of a leader with whom female followers share both team and gender membership.

Female followers' distancing from female leaders in response to stereotype threat has implications for organizations developing female leaders. HR practitioners should be aware that female followers may show less positive attitudes toward females when gender-based leadership stereotypes become salient. The implications of these findings are strengthened by research suggesting that stereotype threat is an on-going concern for women at the workplace (von Hippel et al., 2011). Thus, in organizations, stereotype threat can have a constant impact on how female followers act toward their female leaders. These results have important implications for organizations that have initiated programmes for attitude change toward females as part of attempts to increase the number of female leaders. The results in this research programme suggest that organizations should not only focus on enabling more women to enter leadership roles but also need to pay close attention to female employees as followers because stereotype threat can have negative effects on their attitudes. These implications are also relevant for mentorship programs that involve successful female leaders as mentors of potential female leaders as trainees. Distancing suggests that stereotype threat might interfere with the mentors' positive relationship with the trainees, such that stereotype threat potentially undermines the success of such programs.

The findings have further relevance for research on stereotype threat reduction. Research has identified several strategies that alleviate the negative effects of stereotype threat on performance. Such strategies include reframing the task (Quinn and Spencer, 2001), deemphasizing social identities (Sticker and Ward, 2004), encouraging self-affirmation (Schimel, Arndt, Banko and Cook, 2004), emphasizing high standards with assurances about capability for meeting them (Cohen, Steele and Ross, 1999), providing competitive in-group role models (Blanton, Crocker and Miller, 2000) and enhancing one's self-efficacy in the task (Hoyt, 2005). While these strategies commonly discuss performance strategies and self-perception, the present thesis points to the implications of how followers perceive their female leaders.

Adding to such strategies, this thesis suggests that intervention should focus on the target's relationship with in-group because stereotype threat involves risk in terms of their relationship with the followers, with implications for social isolation and social exclusion by one's followers. Accordingly, to cope with stereotype threat, intervention requires more than educating female leaders about individual coping mechanisms. While the leader may successfully cope with stereotype threat to enhance their own aspirations and performance, stereotype threat shared as collective threat can affect how the followers act toward the leader. Interventions may include training followers to avoid falling in to the trap of collective threat and to learn how to respond positively to gender-based stereotype threat. For example, if female followers are trained to detect cues of stereotype threat and to show conscious and explicit support for female leaders, leader-follower relations may stay strong. Thus, such training may decrease distancing from female leaders by reducing perceptions of collective threat within the group.

Finally, the results have implications for research that argues that stereotype threat is relevant for any types of social groups when compared to relevant, positively stereotyped out-groups (Aronson et al., 1999). This thesis suggests that how group members respond to the in-group member under stereotype threat (the leader in the context of the present thesis) differs from one type of group to the other. Specifically, this research programme demonstrated that followers' sharing a gender category with the leader in

collective threat has different implications for male and female leaders. While female followers distanced themselves from female leaders in response to threat, male followers indicated no distancing from male leaders. Such difference may relate to the general content of male and female stereotypes. While stereotype threat implies undesirable characteristics for both genders, such as lack of assertiveness for females and weaknesses in relationship orientation for males, people generally associate males with power while they view females as assistants (Eagly, 1987; Eagly and Karau, 2002). This research programme, in accord with previous research on gender-based stereotypes and leadership (Davies et al., 2005; Eagly and Karau, 2002) indicates that negative gender-based leadership stereotypes are more threatening for females than for males. As a contribution to such literature, this thesis draws attention specifically to the negative impact of stereotype threat on leader-follower relations embedded in group dynamics.

7.2.2 Team Identification as a Resource for Male Leaders

The next key finding in the present research programme relates to followers' identification with their teams. Social identification indicates positive attitudes toward other group members, therefore, it may mobilize support under threat (Branscombe et al., 1999; Fielding and Hogg, 1997). On the other hand, it also implies enhanced need for positive social identity (Tajfel and Turner, 1986), and high identifiers might therefore respond negatively to in-group members potentially discrediting the group (Branscombe et al., 1993; Oishi and Yoshida, 2002). This thesis showed that team identification interacted not only with threat, but also with the leader's gender. That is, the research programme found evidence that high team identifiers rated female and male leaders differently in response to stereotype threat.

In Study 1, in the context of stereotypes favouring males (and implying threat for females) a shared team identity was an important predictor of the ratings. The teams more favourably rated the leaders of their own teams than leaders of other teams. However, the ratings among high team identifiers were higher for male leaders (stereotype advantage) than for female leaders (stereotype threat). Based on collective threat research (Cohen and Garcia, 2005), the low ratings imply that high team identifiers distanced themselves

from female leaders relative to male leaders. While team identification positively related to how followers rated their male leaders, this benefit was lost when the leaders were females (and thus the target of stereotype threat).

In Study 2, high team identifiers evaluated male leaders more favourably when males were under threat relative to when males were advantaged by the stereotype. This implies that high identifier team members mobilized to show support toward their male leaders under stereotype threat. While the studies found no clear evidence of high team identifiers' distancing from female leaders in response to threat, it is important to note that female leaders did not benefit from followers' team identification in the same way as male leaders did. Such understanding of the ratings is important because it implies a disadvantage of female leaders (relative to male leaders) in terms of their relations with their followers.

Implications. The results in Study 1 suggest that high team identifiers confirmed the expectations based on role congruity theory, i.e. that followers would evaluate male leaders more positively than female leaders. That is, in an organizational context that endorses positive male stereotypes, female leaders are at risk of negative evaluation particularly among high team identifiers. The significance of this finding lies in the important role that high identifiers play in the leadership process (Hogg et al., 1998). High identifiers are committed to their teams, support prototypical team members to become leaders and affect the success of leadership. Therefore, being negatively evaluated by high team identifiers doubles the weight of such evaluations. Similarly to the results in terms of gender category, the implications are strengthened by research that demonstrates that gender-based stereotype threat has an on-going effect at the workplace.

The results in Studies 1 and 2 have relevance for the general view that organizations benefit from team identification. The organizational implications are alike to those in terms of gender category discussed above: while male leaders under threat can benefit from their followers' attitudes (i.e. female followers and high team identifiers), female leaders may not receive similar support. That is, the findings indicated that the interplay between team identity, gender-based leadership stereotypes and gender category resulted in group

dynamics that disadvantaged female leaders compared with male leaders. Research showed that identification with a work-team boosts motivation to achieve collective goals (van Knippenberg and van Scie, 2000). However, this research programme found that team identification in interaction with gender stereotype threat benefitted male leaders, but not female leaders (Study 2). This result indicates that encouraging work-team identification may help male leaders, but not female leaders when gender-based leadership stereotypes are salient. Therefore, in terms of team development, organizations should pay close attention to such group dynamics in teams. Educating organizational teams about stereotype threat and collective threat should help team members identify situations of stereotype threat and to positively respond to their female leaders.

Finally, the results in Studies 1 and 2 have implications for how high team identifiers perceive their female leaders in terms of “prototypicality” as used in the leadership literature. Leader categorization theory (Lord et al., 1984) argues that followers evaluate individuals for leadership roles with comparison to the ideal leader prototype. Role congruity theory (Eagly and Karau, 2002) maintains that due to the mismatch of female stereotypes and leadership roles, people in general do not think of females as ideal leaders. Social identity theory also focuses on the leader as a prototype; however, this prototype refers to embodying the core characteristics of a social group. Based on social identity theory, one may argue that females appear less prototypical in terms of team characteristics when the matter of leadership is relevant. As argued by Ryan and Haslam (2007), one might find that high team identifier followers not only perceive females as less prototypical in terms of ideal leader attributes, but also as less prototypical than males in terms of team identity. Accordingly, one may argue that by demonstrating that they fit the prototype of followers’ shared identity, such as a team, female leaders can enhance women’s reputation and inclusion as important members of their teams. That is, when female leaders are accepted by high identifiers in the team, respect may arise for women as valued and equal members of their teams. However, the findings in this research programme suggest that female leaders’ success is particularly fragile

due to the perceived negative effects of gender-based stereotype threat on the positive distinctiveness of the team.

No moderation by gender identification. While gender category and team identification were important predictors of how followers responded to their leaders under stereotype threat, the studies found no evidence for the moderating role of gender identification. That is, high gender identifier females did not distance themselves from their leaders to a lesser degree than low identifiers and further, such identification did not moderate stereotype threat effects on leadership-efficacy. Although gender stereotype threat immediately cues gender category, in the context of leader-follower relations, the research programme indicates that team identification was a more important factor. One may expect that gender identification (implying enhanced need for positive identity in terms of gender category) enhances distancing in response to gender-based stereotype threat. Similarly to Cohen and Garcia's research (2005), in Studies 2 and 3 in the present research programme, gender identification did not moderate female followers' distancing from female leaders. These results suggest that stereotype threat has different implications for the individual in terms of team identity and gender category. While threat response in terms of team identity appears to depend on identification, in terms of gender, it is not level of identification per se, but rather being a member of and the evaluation of the gender category that triggers a threat response. That is, gender is a less flexible category, thus escaping the negative consequences regarding one's gender is more difficult than in terms of team identity, which is more flexible in terms of individuals' self-concept.

7.2.3 Stereotype Threat Effects on Followers' Self-Efficacy for Leadership

Studies 1 and 2 showed that team identification and followers' gender category moderated the effects of stereotype threat on leader ratings. Distancing from/solidarity with the leaders gave hints that stereotype threat may also have implications for how the followers felt about themselves. Thus, in addition to leader ratings, Study 3 also examined how stereotype threat affected followers' self-efficacy for leadership. Study 3 found that high team identifier followers

(regardless of their gender category) indicated less self-efficacy to represent their teams as leaders under stereotype threat relative to the no-threat condition. This result was in accord with research demonstrating that stereotype threat negatively affects the aspirations of members of stereotyped groups for roles in the stereotyped domain (Steele and Aronson, 1995).

Importantly, research (Schmader, 2002) showed that stereotype threat effects were moderated by identification with being a woman on math performance. Accordingly, one may expect high gender identifier females and also males to indicate less self-efficacy for leadership in response to stereotype threat. Study 3, however, showed that it was not gender identification, but team identification that moderated self-efficacy ratings. This result points to the need to understand the effects of gender-based leadership stereotypes in terms of followers' identification with a shared social identity, their team.

This drop in self-efficacy implied a conflict within individuals resulting from (a) identification with a team and (b) being negatively stereotyped based on sharing a gender with the leader. While the individual feels committed to the team, due to gender-based stereotype threat, the follower may hold him/herself back from the leadership role. In other words, stereotype threat to the leader (which studies with females have shown predicts a performance drop and/or a decreased aspiration to be a leader) is internalised by high team identifiers to represent a threat to the self and one's own self-efficacy for leadership. Further, such self-internalization of threat may have interplayed with high team identifiers' need for a positively distinct team identity. That is, the reduced self-efficacy may relate with high team identifiers' preference for a leader who positively reflects on the team (Hogg et al., 1998). Accordingly, in Study 3, high team identifiers in response to stereotype threat perceived that their leadership would negatively reflect on the team, thus, they wished not take a leadership role, which was a safe option for the team in terms of positive distinctiveness.

Implications. The finding regarding self-efficacy has implications for leadership development programmes. High team identifiers are an important asset for organizations because these individuals are motivated to exert effort on behalf of their teams in terms of citizenship behaviour and collective performance (Haslam, 2004; Haslam, Reicher and Platow, 2011). The results in Study 3

suggest that organizations should pay close attention to dedicated members of teams because these individuals are particularly vulnerable to stereotype threat effects that are directed towards the leader of a team they identify with.

7.3 Challenges in the Present Research Programme

Sample size. Due to the limited sample sizes across the studies, the analyses have limited statistical power. In low sample sizes, outliers have a large impact on the means and on the interpretation of the model. Thus, the studies carefully analysed and removed outliers to detect significant and marginally significant effects. Ideally, analysis of variance requires twenty participants per cell (Simmons et al., 2011); in each study of this research programme, the interaction effects included lower number of participants. This was a particular problem in the online corporate study (Study 4) and as a consequence, narrowed the array of effects which could be analysed. Further, the over-representation of male leaders that were chosen by the respondents in Study 4 resulted in very unequal cell sizes. Thus, study 4 could not statistically test the key findings that emerged from studies 1-3 (i.e. the attitudes of female followers toward female leaders under threat as compared to no threat).

Sample size also presented a challenge in terms of complexity of interactions which could be tested. For example, with a higher N in Studies 2 and 4, two separate 2x2x2 designs could have been used to examine differences between low and high team identifiers along with followers' gender in attitudes toward male and female leaders in two conditions. Such analysis could elaborate further on female followers' distancing from female leaders in terms of team identification: for example, by testing whether low and high team identifier female followers would respond differently to their female leaders under threat. To overcome such challenges, in Study 4 the analysis focused on two-way interactions wherever this was possible.

Generalization. Studies 1, 2, and 3 involved undergraduate students as participants working on group projects in small teams. In contrast to the workplace environment, in undergraduate student teams the relationship between leaders and followers does not involve differences in important dimensions such as status, career path/ personal development, power,

resources and pay; rather, leaders and followers have the status of peers with similar goals. Thus, in terms of such characteristics, generalization to organizational teams has limitations. However, the thesis focused on concepts that are commonly studied in organizational research (i.e. team identity, gender category, social identification and stereotype threat) and the findings are relevant for organizational contexts involving leader-follower relations.

Although Study 4's sample size was low, the respondents were recruited from representative organizations in the UK and highlight some particularly noteworthy implications for corporate practice and practitioners. For example, the results showed that seventy-five percent of male respondents selected male leaders as effective. Female respondents on the other hand did not demonstrate this preference, and their text responses indicated that they preferred female leaders over male leaders. Overall, Study 4's preliminary analysis and text responses indicate that male respondents strongly associated effective leadership with their own gender category and correspondingly, while females continue to struggle for acceptance in terms of leadership. These results confirm role congruity theory research based on Eagly and Karau, 1991; Eagly et al., 1995 and Eagly et al., 1995, suggesting that despite two decades of immense social and economic change since then, the predominant preferences of males in terms of the leader's gender remain unchanged to those observed twenty years ago.

7.4 Conclusions

Based on the findings in the empirical chapters, this thesis proposes that independent of leader performance, the mere salience of gender stereotypes (i.e. stereotype threat) shared as collective threat is sufficient to trigger followers' negative attitudes toward female leaders. Therefore, the main implication of this research programme highlights the power of gender-based leadership stereotypes on followers' attitudes toward their leaders. Studies 2 and 3 suggest that such stereotypes weakened the relationship between female leaders and their female followers. In contrast, stereotypes can boost support for male leaders among female followers and high team identifiers. The research programme found evidence that in response to stereotype threat, the actual performance of male leaders was favourably evaluated, while female

leaders were downgraded, and further, the stereotypes affected how close female followers felt toward their female leaders. Previous research (Eagly et al., 1995; Eagly et al., 1992; Wolfram et al., 2007) also suggests that gender stereotypes powerfully affect the perceptions of and evaluation of female leaders. The present thesis adds to such literature by drawing attention to collective threat for the followers resulting from stereotype threat directed toward the leader's gender.

A critical aspect of collective threat research is the comparison of distancing from the in-group member with the black-sheep effect (Cohen and Garcia, 2005). While individuals in the black sheep effect clearly act in undesirable ways (disloyalty, poor performance etc.), the present research programme found evidence that the potential of confirming negative female stereotypes triggered responses that are similar to the black sheep effect. The power of the negative leader stereotypes was also demonstrated in reduced self-efficacy for leadership among the followers. Therefore, the research programme draws attention to the importance of further research in the area of leadership and gender. Importantly, the thesis indicates that such research needs to take into account the relevant social identities (i.e. team, gender) in the context of leader-follower relations. The findings suggest that gender-based leader stereotypes do not operate in a vacuum, but rather, their effects are also related to the interplay between a shared team identity and gender category and to the meaning of the stereotypes for these identities in terms of threat or advantage.

This thesis transferred collective threat research (Cohen and Garcia, 2005) to leadership to explore how followers would respond to their leaders when stereotype threat applies to the leader's gender. Based on the theories integrated, the thesis proposed three research questions that were outlined in Chapter 1. The results from the empirical studies provided insights to these questions. The first research question was concerned with how male and female followers would respond to their female leaders under threat. Previous research demonstrated that males are more likely than females to have negative attitudes toward female leaders. The results in this research programme indicated that in response to stereotype threat, female leaders were

negatively evaluated by female followers, but not by male followers, relative to the no-threat conditions. The finding suggests that stereotype threat can create circumstances in which female followers negatively act toward female leaders, thus, stereotype threat is an important factor and particularly, in how female followers respond to their female leaders.

Second, the thesis asked whether followers' social identification with their teams and with their gender category would have an effect on the ratings in response to stereotype threat. The results indicated that followers' team identification was a resource for male leaders, while, female leaders did not benefit from the ratings of high team identifiers. These findings point to the advantage of male leaders over female leaders in terms of leader-follower relations: while males were under threat, high team identifiers seemed to mobilize to give high ratings for their male leaders. However, when females were under threat, high team identifiers did not show the same solidarity. Thus, answering the third research question, the leader's gender made a difference in terms of follower' attitudes in response to gender-based stereotype threat. The results both in terms of team identification and gender category suggest that followers responded toward male leaders with solidarity but distanced themselves from female leaders.

This gap in attitudes toward male and female leaders can be seen in Americans' attitudes toward vice presidential candidate Sarah Palin with which this thesis began and toward former President George W. Bush. Both leaders faced criticism in terms of negative gender stereotypes. The media often ridiculed Bush as a typical American man who knew more about baseball and good times out than about governing his country. Voters, particularly Palin's opponents, suggested that she might be better staying at home taking care of her newborn baby than running for the vice presidency. However, research suggests that Bush's typicality as an American man helped him gain support in the US presidential elections (Reicher, Haslam and Platow, 2007). On the contrary, the implications of Palin's typicality and/or lack of typicality as an American female, divided her voters (Kingston, 2010).

The findings in this research programme have implications for public policy aimed to increase the number of female leaders in Europe's and the UK's

biggest companies (*European Commission*, 2012; Lord Davies, 2011). While these policies may appear to reduce the negative effects of gender-based leader stereotypes on females' opportunities to become leaders, such policies do not address the effects of these stereotypes on leader-follower relations, particularly not in terms of stereotype threat and collective threat. The thesis's implications for organizations are enhanced by the fact that these stereotypes exerted an effect in a young generation (i.e. the student studies), even though the society these students live in encourage equal opportunity and respect for gender diversity.

7.5 Future research

The present research programme provided an integrated theoretical approach and implemented an empirical design to test stereotype threat effects in undergraduate and organizational teams in terms of leader performance ratings and leader-follower proximity. The thesis, in terms of future research, has implications for two main aspects of gender and leadership research. First, as a conceptual/empirical contribution, the integrated approach provides insight into the importance of group processes (in terms of the leader-follower dynamic) to understand the effects of gender-based leader stereotypes in leadership. This approach and the findings demonstrate that such stereotypes are not just threats for leaders (or those aspiring to be leaders) but can also trigger collective team threat with a negative impact on leader-follower relations for those team members who are vulnerable to experience this threat. Collective threat, in turn, can have negative consequences for leaders in terms of leadership ability as distancing from a leader reduces a leader's ability to influence and engage followers. Second, the thesis draws attention to the importance of being aware of the complex and pervasive nature of negative stereotype effects on both women and leader-follower relations when designing interventions to address the gender imbalance in the workplace. This thesis suggests that any effective intervention needs to go beyond a focus on working to increase the number of women in leadership positions and to particularly pay attention to leader-follower relations.

The thesis tapped into the implications of gender-based leader stereotypes for leader-follower relations and initiated questions for future research. The

findings suggest that (a) female followers' distancing from and (b) high team identifiers' relative lack of support for female leaders under stereotype threat may interfere with how effectively female leaders can act in their teams. Whether followers support or withdraw support for the leader should influence leader effectiveness because followers play an important role in achieving collective goals thus followers affect the success of leadership as well (e.g., Hogg, 2001).

Research indicates that stereotype threat implies anxiety and distress (Steele, 1997), suggesting that stereotype threat entails a circumstance in which female leaders may require enhanced support on the part of their followers to cope with the threat and to lead effectively. However, the present thesis suggests that followers have concerns that the leader might negatively reflect on the team and on female team members, a fear that led to distancing in the student studies. Thus, in an organizational context, female leaders may not receive support from their followers to cope with stereotype threat and to successfully lead a team. The consequences of distancing may lead to deteriorated leader-follower relations, an outcome that followers and employers could attribute to female leaders' lack of leadership skills, justifying the view that females are not suited for leadership roles. This prospect is particularly worrisome in light of the corporate attention to equal opportunities and gender diversity in leadership. Thus, beyond the measures applied in this research programme, future studies should investigate how gender-based stereotype threat may affect follower support for the leader and its implications for leader effectiveness.

This research programme suggests that the incongruity between leader roles and female stereotypes has particular importance when female leaders perform on behalf of their followers in an intergroup-context, i.e. when their performance is representative of the team. While females can be positively stereotyped for relationship orientation in running a team (Eagly, 2007), i.e. an intra-group context, performing on behalf of the team constitutes a task in which role incongruity between the leader role and female stereotypes may become enhanced. Future research should consider such tasks as important because the positive female stereotypes for leadership may particularly be violated in

those circumstances. Further, regarding organizational practice, such tasks may prove important in terms of developing female leaders and enabling them to cope with challenging leadership situations.

The thesis further points to the need to examine how the negative effects of collective threat might be reduced (i.e. followers' distancing from female leaders). For example, future research may experimentally test whether educating followers about collective threat effects could eliminate distancing. Importantly, however, while followers may explicitly support their female leaders in situations of stereotype threat, followers' implicit responses can also have a powerful impact on the experience and success of female leaders. Because discrimination often takes subtle forms, future research should include non-verbal measures (physical distance, posture and tone of voice) to explore the effects of stereotype threat on followers' attitudes toward their leaders. A further challenge includes making sure that participants walk away not only with a general knowledge about collective threat, but they should also be able to positively respond to their female leaders.

Appendices

Appendix 1

Question Items for Team Identification and Gender Identification (Study 1)

<i>Question items</i>	<i>Team identification</i>	<i>Gender identification</i>
1. Being a member of (Group X) is important to me (Haslam et al., 1999)	X	
2. In general, I feel good when I think about myself as a member of (Group X) (Doosje et al., 1995)	X	X
3. I identify with other members of (Group X) (Doosje et al., 1995)	X	X
4. I have a number of qualities typical of other members of (Group X) (Karasawa, 1991)	X	
5. When someone praises (Group X), it feels like a personal compliment (Mael and Ashforth, 1992)	X	X
6. The successes of (Group X) are my successes (Mael and Ashforth, 1992)	X	X
7. When someone criticizes (Group X) in general, it feels like a personal insult (Mael and Ashforth, 1992)	X	X
8. I am very interested in what others think of (Group X) (Mael and Ashforth, 1992)	X	

Appendix 2

Hierarchical Regressions Predicting Performance Ratings with Gender Identification from Study 1(N=60)¹⁵

Step	Variables	R^2	R^2 change	$\beta 1$	$\beta 2$	$\beta 3$
1	Leader gender	.04	.04	.16	.16	.15
	Follower gender			.05	.05	.04
	Gender identification			.15	.16	.16
2	Leader gender*	.04	.00		.03	.03
	Follower gender					
	Leader gender* Gender identification				.11	.12
	Follower gender* Gender identification				.07	.06
3	Leader gender*	.05	.01			-.09
	Follower gender*					
	Gender identification					

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

¹⁵ The analysis removed two male and one female participants as outliers with studentized residuals above 2.4 and a Cook's distance above .08, exceeding the critical value of Cook's distance of .06 for n= 64, computed by 4/n-1. With the inclusion of these cases the relationships were of lower magnitude.

Appendix 3

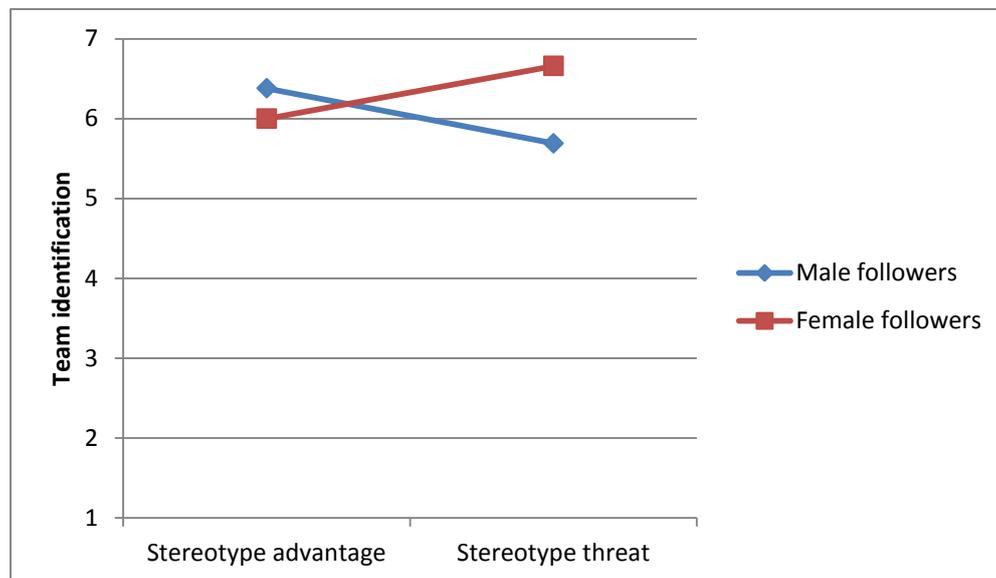
Preliminary Analysis for Team Identification from Study 2

Team identification. In Study 2, the team identification items came after the manipulations so the preliminary analysis tested whether the manipulations had an impact on team identification. A 2x2x2 (Leader gender condition: stereotype advantage or stereotype threat) x (Leader gender: male or female) x (Follower gender: male or female) ANOVA was performed with team identification as the dependent variable (Appendix 4). The main effects were not significant. The two-way interaction between the leader gender condition and follower gender was significant. Appendix 5 displays a graph of the interaction. Simple main effects analysis showed that for female followers the difference between the stereotype advantage ($M=6.00$, $SD=.91$) and stereotype threat conditions ($M=6.66$, $SD=.53$) was significant, $t(43) = 2.03$, $p = .004$. For males, the difference between the stereotype advantage ($M=6.38$, $SD=.90$) and stereotype threat ($M=5.69$, $SD=.80$) conditions was also significant, $t(30) = 2.21$, $p=.035$. The results suggest that when the leader's gender was under stereotype threat, the female followers identified more with their teams than when the leader's gender was advantaged by the stereotype. In contrast, male followers identified less with their teams when stereotype threat applied to their leaders than when the leader's gender was associated with advantage. Therefore, in the stereotype threat condition, low levels of team identification corresponded with male followers, whereas high levels of team identification corresponded with female followers. The rest of the two-way interactions and the three-way interaction were not significant.

Appendix 4

Analysis of Variance for Team Identification from Study 2

Source	df	F	η	Sig.
Leader gender condition	1	1.00	.00	.76
Leader gender	1	1.67	.03	.20
Follower gender	1	2.28	.03	.14
Leader gender condition*Leader gender	1	3.50	.05	.07
Leader gender condition* Follower gender	1	11.32	.15	<.001
Leader gender * Follower gender	1	2.00	.03	.16
Leader gender condition*Leader gender *Follower gender	1	.46	.01	.50
Error	65			



Appendix 5. Interaction between leader gender condition and follower gender in relation to team identification from Study 2.

Appendix 6

Analysis for Gender Identification from Study 2

Study 2 also examined the implications of gender identification. In Study 2 the design allowed for testing the impact of gender identification by comparing the stereotype threat and stereotype advantage conditions for male and female leaders. The gender identification measure contained three items taken from an established scale for social identification (Hinkle, Taylor, Fox-Cardamone and Crook, 1989). Due to time restrictions for data collection, the gender identification measure contained a lower number of items than the same measure in Study 1. The items measured feelings about being a member of one's gender category. An example item is: "In general, I am glad to be a woman/man". The three items formed a reliable scale ($\alpha=.71$), with high scores indicating strong identification with gender. For preliminary analysis, the study included ANOVA with the leader gender condition (stereotype advantage or stereotype threat), the leader's gender (male or female) and the follower's gender (male or female) as the independent variables and gender identification as the dependent variable. The effects were not significant (Appendix 7). The preliminary analysis also assessed the relationship between gender identification and team identification (Appendix 8). Gender identification non-significantly correlated with team identification, reflecting that these variables measured different forms of identity.

Appendix 7

Analysis of Variance for Gender Identification from Study 2 (N=69)

<i>Source</i>	<i>df</i>	<i>F</i>	<i>η</i>	<i>Sig.</i>
Leader gender condition	1	.14	.00	.71
Leader gender	1	.17	.00	.68
Follower gender	1	.56	.01	.46
Leader gender condition* Leader gender	1	.16	.00	.69
Leader gender condition*Follower gender	1	.02	.00	.89
Leader gender * Follower gender	1	1.00	.00	.76
Leader gender condition*Leader gender* Follower gender	1	.63	.01	.43
Error	66			

Appendix 8

Correlation of Gender Identification with Team Identification from Study 2 (N=68)

<i>Variables</i>	<i>Mean</i>	<i>SD</i>	<i>2</i>	<i>3</i>
1. Team identification	6.14	.87	.07	.23
				p=.056
2. Gender identification	6.45	.77		.07

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

Appendix 9

Hierarchical Regression Analysis with Gender Identification as a Moderator from Study 2.

In contrast to the analysis involving team identification, the moderation analysis for gender identification included the four-way interaction of the variables. To simplify the design, the analysis included two hierarchical regressions: one for female leaders and another for male leaders. The analysis used centred scores for gender identification while the rest of the variables had similar codes as in the analysis for team identification. The first step tested follower gender, leader gender condition and gender identification. The second step examined the two-way interaction terms, followed by the three-way interaction terms in the third step.

Appendix 10 summarizes the results for female leaders. In the first step the main effects were not significant. The two way interactions in the second step significantly increased the explained variance; the interaction between the leader gender condition and the follower's gender was significant, as indicated in the ANCOVA. The interaction between leader gender condition and gender identification was also significant. However, this result was not informative without accounting for the role of the follower's gender.

Appendix 11 shows the results for male leaders. The first step significantly increased the explained variance. The leader gender condition significantly contributed to the model, as indicated in the ANCOVA with team identification. The follower's gender was also significant; also as shown in the ANOVA. The results beyond the effects outlined in the ANCOVA were not significant. In sum, gender identification did not moderate the ratings significantly.

Appendix 10

Hierarchical Regression with Gender Identification Predicting Followers' Ratings for their Female Leaders from Study 2 (N=30)¹⁶

Step	Variables	R^2	R^2 change	$\beta 1$	$B 2$	$\beta 3$
1	Leader gender condition	.03	.03	-.13	-.19	-.17
	Follower gender			.05	-.02	.01
	Gender identification			.12	.08	.25
2	Leader gender condition*Follower gender	.38*	.36*		.36*	.30
	Leader gender condition*Gender identification				.54*	.47*
	Follower gender*Gender identification				.07	.01
3	Leader gender condition*Follower gender*Gender identification	.43	.05			.27

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

¹⁶ The analysis excluded one male participant (Leader gender condition: advantage) with a value of -2.80 and a Cooks distance over .19. With the inclusion of this case, leader condition*follower's gender interaction was not significant.

Appendix 11

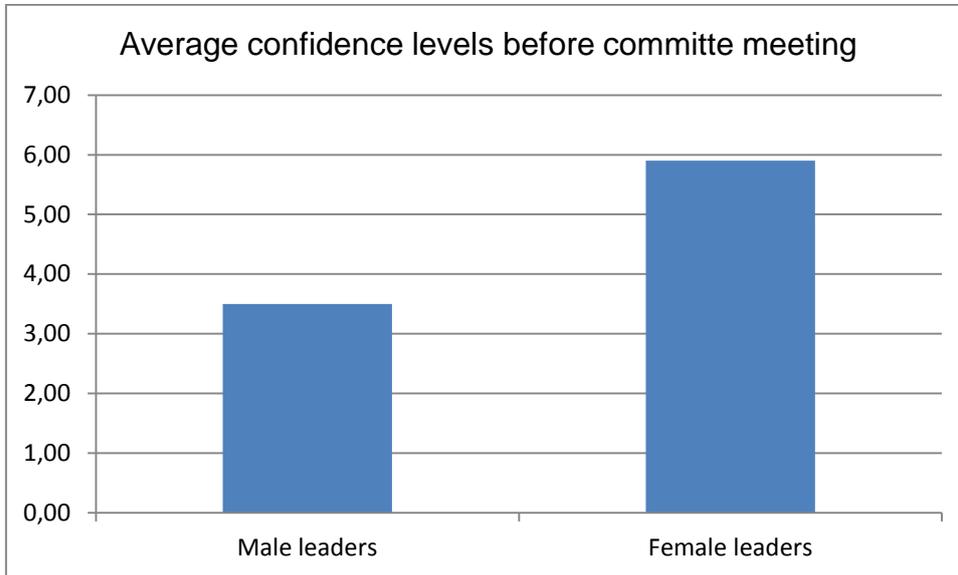
Hierarchical Regression Analysis with Gender Identification Predicting Followers' Ratings for their Male Leaders from Study 2 (N=38)

Step	Variables	R^2	R^2 change	$\beta 1$	$B 2$	$\beta 3$
1	Leader gender condition	.46***	.46***	.65***	.55***	.54***
	Follower gender			-.34*	-.34**	-.34*
	Gender identification			.06	.03	.04
2	Leader gender condition*Follower gender	.54	.07		-.16	-.13
	Leader gender condition*Gender identification				.21	.21
	Follower gender*Gender identification				.05	.05
3	Leader gender condition*Follower gender*Gender identification	.55	.01			-.11

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

Appendix 12

Stereotype Threat Condition for Males (Supporting Material from Study 3)

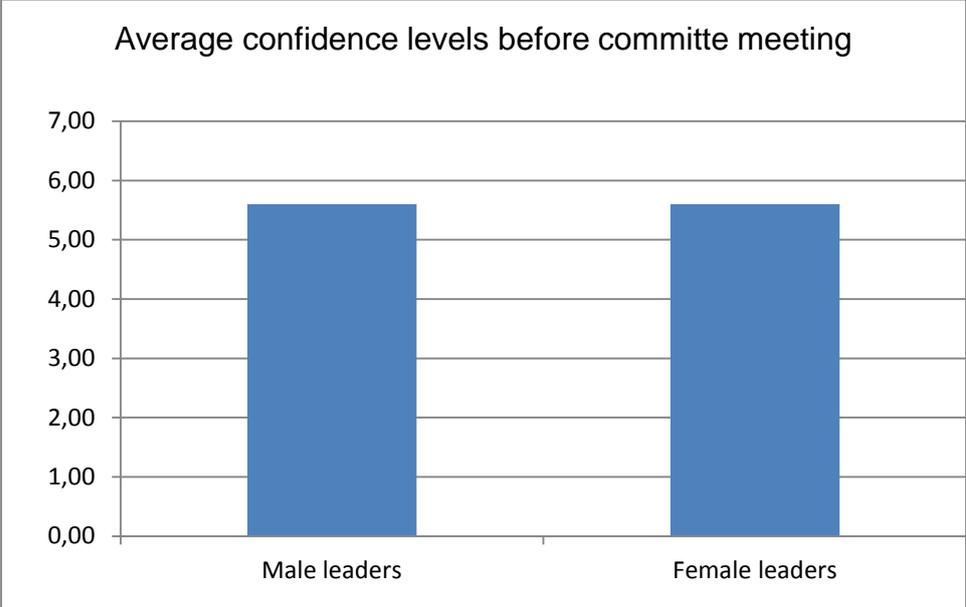


Appendix 13

Stereotype Threat Condition for Females (Supporting Material from Study 3)

Appendix 14

Control Condition (Supporting Material from Study 3)



Appendix 15

Hierarchical Regression Predicting Leader-Follower Proximity with Gender Identification from Study 3 (N=30)

Step	Variables	R^2	R^2 change	$\beta 1$	$B 2$	$\beta 3$	$\beta 4$	$\beta 5$
1	Leader's effectiveness	.57***	.57***	.76***	.92***	.90**	.90***	.89***
2	Condition	.60	.03		-.16	-.15	-.15	-.14
	Gender				.10	.09	.09	.08
	Gender identification				-.16	-.15	-.15	-.14
3	Condition* Gender	.61	.01			.13	.12	.11
4	Condition*Gender identification	.61	.00				-.06	.09
	Gender*Gender identification						.04	.05
5	Condition*Gender*Gender identification	.62	.01					-.02

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

Appendix 16

Hierarchical Regression Predicting Predicted Performance with Gender Identification from Study 3 (N=30)

Step	Variables	R^2	R^2 change	$\beta 1$	$B 2$	$\beta 3$	$\beta 4$	$\beta 5$
1	Leader's effectiveness	.62***	.62***	.79***	.94***	.91	.91	.90
2	Condition	.67	.05		-.09	-.08	-.08	-.08
	Gender				.21	.20	.20	.19
	Gender identification				-.13	-.11	-.11	-.11
3	Condition* Gender	.68	.01			.15	.15	.14
4	Condition*Gender identification	.69	.01				.04	.05
	Gender*Gender identification						-.05	-.10
5	Condition*Gender* Gender identification	.69	.00					-.00

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

Appendix 17

Hierarchical Regression Predicting Self-Efficacy with Gender Identification from Study 3 (N=30)

Step	Variables	R^2	R^2 change	$\beta 1$	$B2$	$\beta 3$	$\beta 4$	$\beta 5$
1	Leader's effectiveness	.06	.06	.24	.25	.32	.32	.31
2	Condition	.09	.03		-.16	-.18	-.18	-.17
	Gender				-.07	-.06	-.06	-.06
	Gender identification				.08	.05	.05	.05
3	Condition* Gender	.18	.10			-.31	-.31	-.30
4	Condition*Gender identification	.18	.00				.04	.06
	Gender*Gender identification						-.05	-.05
5	Condition*Gender* Gender identification	.18	.00					-.01

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

Appendix 18

Age Range of Respondents from Study 4

<i>Age range</i>	<i>% of respondents</i>
26-30	4
31-35	16
36-40	20
41-45	12
46-50	16
51-55	20
56-60	6
61-65	4

Appendix 19

Invitation to the Online Study (Study 4)

This study aims to learn about your specific experience of effective leadership as a member of an organizational team, while also asking for your thoughts in response to media representations of leadership. Instead of interviewing the leaders, this study is intended to learn about the ideas of employees as team members regarding aspects of leadership that are important to them and what effective leadership is about, in their view. The questionnaire should take just over 10 minutes to complete. All responses will be treated in complete confidence and with anonymity. You are eligible to take part in this study if you regularly work in teams as part of your role. Click on the link below to participate.

Appendix 20

Female Respondents' Text Responses to the Article Describing Females Negatively (Study 4)

1. Frustrating! Based on empirical data so assume accurate - but women on the board negatively affecting company performance?
2. I don't believe it is gender that influences success it is the skill set, interaction and ability of the board
3. Concern about female leadership being belittled. Concern as to what leadership roles women are taking - are they set up to fail?
4. The article suggests that females or female attributes may not support successful leadership. I wonder if this is due to cultural change being required, and that given time and attitudinal change we may see changes in the performance of these organisations. It reminds me of the differing leadership styles that individuals use and the differing attributes of each gender and how these can impact on the experience of a leader.
5. I think that 'equality in the workplace' can actually manifest as equality. Despite being a woman I think that jobs should go to the best performers, regardless of their gender. I am aware this is what equality seeks to promote, but the article statistics refute this.

Appendix 21

Female Respondents' Text Responses to the Article Describing Males Negatively (Study 4)

1. Women are better leaders than men are.
2. I concur whole heartedly with the sentiment
3. As a woman I agree with the mentoring statement and our ability to time manage and organise exceeds male co workers in my experience. Also the ability to work to a deadline in my experience is something woman do better than men
4. This is simplistic article. There are many assumptions about what we mean as leaders and leadership that are not made explicit here. Leadership to me is finding and articulating a vision and then bringing your people with you. Women are very effective at this but there are all kinds of unconscious bias' at work that make this less likely to be seen; as a result 12.5% of members of corporate boards of FTSE 100 companies are women. Leadership is not just what we say we want, but full of unconscious patterns from our collective and personal histories

Appendix 22

Male Respondents' Text Responses to the Article Describing Females Negatively (Study 4)

1. Not much - badly written article that misses the point of long term board leadership and goes against other research.
2. Surprised by the statistics - the perception is that females on the board create diversity and encourage a different thought perspective
3. Women on the board balance the dynamics leading to better long term performance - perhaps all male boards have done better for some short term measures but ultimately it is less sustainable and the article is possibly unfair to women as 1 years performance in a recessionary period is simply not a statistically sound way to run the analysis/premise upon which this article is based.
4. Leadership is not just about how your company performs in the FTSE top 100 over a short period of time!

Appendix 23

Male Respondents' Text Responses to the Article Describing Males Negatively (Study 4)

1. This article is too generalised. Some women can be effective leaders, others fail to connect, trying to be too aggressive
2. I actually think gender isn't a factor, it's all about the individual that's in charge and managing individuals by their motivation
3. There is a lot to do with setting an example, of quality of work, of its meaningfulness. But I don't see that this is so simply correlated to gender
4. Attempt to reference female leader strengths to my own observations in the workplace. Leaders are individuals though, despite what large scale effect comes through from a study.
5. I thought the study generalised about gender differences in management and what represents effective leadership
6. Little new from what I feel in any case. Concentrates on women managers who I believe are just as able as male. Article is old fashioned in seeking in justify women as leaders - agenda has moved on
7. To restrict recruitment to females as managers restricts options and may mean missing the very person you need/want. Not all research is entirely accurate!
8. Agree with qualities that are emphasised in terms of leadership. However, gender, in my experience, is not an accurate indicator of these traits. There is a generalised pattern, however, there are also plenty of women who are just as driven and manipulative as their males counterparts.
9. I think it is fair to say that women are often very good leaders and on average better than their male counterparts but I am not sure that it is correct to draw the conclusion that you will guarantee a better outcome if you hire a woman
10. It made me think more about the relationship side of leadership.

Appendix 24

Hierarchical Regression Predicting Leader-Follower Proximity for the Moderating Role of Team Identification from Study 4 (N=50)

Step	Variables	R ²	R ² change	β1	B2	B3	B3
1	Leader gender condition	.40***	.40***	.12	.20	.20	.20
	Leader gender			-.03	-.02	-.02	-.02
	Team Identification			.63***	.65***	.66***	.66***
2	Leader gender* Leader gender condition	.42	.02		-.10	-.12	-.16
3	Leader gender condition*Team identification	.45	.03			-.11	-.15
	Leader gender*Team identification					-.08	-.08
4	Leader gender condition*Team identification	.45	.00				.02

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

Appendix 25

Hierarchical Regression Predicting Leader Performance for the Moderating Role of Team Identification from Study 4 (N=50)

Step	Variables	R ²	R ² change	β1	β2	β3	β4
1	Leader gender condition	.14	.14	.23	.19	.18	.17
	Leader gender			-.01	-.02	-.01	-.02
	Team Identification			.32*	.32*	.28	.25
2	Leader gender* Leader gender condition	.15	.01		.09	.10	.11
3	Leader gender condition *Team identification	.20	.05			-.20	-.29
	Leader gender*Team identification					.13	.15
4	Leader gender* Leader gender condition *Team identification	.23	.03				.21

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

Appendix 26

Hierarchical Regression Predicting Leader's Skills for the Moderating Role of Team Identification from Study 4 (N=50)

Step	Variables	R ²	R ² change	β ₁	β ₂	β ₃	β ₄
1	Leader gender condition	.10	.10	.19	.18	.16	.16
	Leader gender			-.04	-.04	-.03	-.01
	Team Identification			.27	.27	.23	.20
2	Leader gender* Leader gender condition	.10	.00		.01	.02	.03
3	Leader gender condition ¹⁷ *Team identification	.24*	.14*			-.36*	-.40*
	Leader gender*Team identification					.16	.17
4	Leader gender* Leader gender condition *Team identification	.23	.02				.14

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

¹⁷ The interpretation of the results excluded the significant interaction between condition and team identification because this interaction was not informative without having to account for the leader's gender.

Appendix 27

Hierarchical Regression Predicting Feelings for the Moderating Role of Team Identification from Study 4 (N=50)

Step	Variables	R ²	R ² change	β1	β2	β3	β4
1	Leader gender condition	.13	.13	.12	.14	.11	.11
	Leader gender			-.10	-.10	-.08	-.06
	Team Identification			.33*	.33*	.24	.26
2	Leader gender* Leader gender condition	.13	.00		-.04	-.02	-.01
3	Leader gender condition *Team identification	.21	.08			-.17	-.25
	Leader gender*Team identification					.26	.28
4	Leader gender* Leader gender condition *Team identification	.25	.04				.23

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

Appendix 28

Hierarchical Regression Predicting Followers' Self-Efficacy by Condition and Age from Study 4 (N=30)

Step	Variables	R ²	R ² change	β 1	B2	B3
1	Condition	.03	.03	-.26	-.21	-.28
2	Age 1 (26-30)	.26	.23		-.21	-.10
	Age 2 (31-35)				-.83*	-.53
	Age 3 (36-40)				-.50	-.29
	Age 4 (41-45)				-.14	-.14
	Age 5 (46-50)				-.16	.04
	Age 6 (51-55)				-.35	-.22
	Age 7 (56-60)				-.13	.04
3	Condition*Age 1	.26	.00			.02
	Condition*Age 2					-.45
	Condition*Age 3					-.15
	Condition*Age 4					-.07
	Condition*Age 5					-.22
	Condition*Age 6					-.40
	Condition*Age 7					-.13

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

Appendix 29

Gender Identification and Team Identification Items

	<i>Gender identification</i>	<i>Team identification</i>	<i>Leader's effectiveness</i>
Study 1	Six-item measure ($\alpha=.76$); 3-items taken from Mael and Ashforth's social identification scale (1992) two items from Doosje, Ellemers and Spears (1995) and one item from Haslam, Oakes, Reynolds and Turner (1999).	Eight-item measure ($\alpha=.76$) including items based on scales from Mael and Ashforth (1992), Doosje, Ellemers and Spears (1995) and Haslam, Oakes, Reynolds and Turner (1999).	N/A
Study 2	Three-item measure ($\alpha=.71$) based on Hinkle, Taylor, Fox-Cardamone and Crook (1989)	Four-item measure ($\alpha=.83$) based on Doosje, Ellemers and Spears (1995).	N/A
Study 3	Three items based on Mael and Ashforth (1992) and one item based on Branscombe, Ellemers, Spears and Doosje (1999). The four item's α was .76.	Five-item measure ($\alpha =.91$). Three items based on Branscombe, Ellemers, Spears and Doosje (1999) and Mael and Ashforth (1992). Two additional items measured how group members felt about working with the group.	Seven-item measure based on Fielding and Hogg (1997), $\alpha=.91$.
Study 4	Single-item measure taken from a four-item scale (Schmader, 2002).	Six-item measure ($\alpha=.87$); four items were taken from Mael and Ashforth's scale (1992) and two items were created to measure how respondents felt about working with the team and how they identified with other team members	Seven-item measure based on Fielding and Hogg (1997), $\alpha=.85$

Appendix 30

Study 1 Summary Table

Sample	Team composition, leaders and study scenario	Manipulations	Independent variables	Independent predictors (measured)	Outcome measures	Findings
					Followers' assessment of the leader's performance	
Students, <i>N</i> =64, in-class experimental study	Mixed-gender teams of 4-5 individuals, teams appointed the leaders for the task of leading the team to prepare the presentation material and to give the presentation.	Before the presentations started, all followers read that males were better communicators than females.	Leader gender (female or male) and the follower's gender (female or male)	Team identification and gender identification measured before the manipulations	Observed presentations skills	(1) Followers rated their own leaders higher than leaders of other teams. (2) High team identifiers rated the in-group leaders higher than low team identifiers did. (3) High team identifiers rated female leaders marginally lower than male leaders.

Appendix 31

Study 2 Summary Table

Sample	Team composition, leaders and study scenario	Manipulations	Independent variables	Independent predictors (measured)	Outcome measures	Findings
					Followers' assessment of the leader's performance	
Students, N=69, in-class experimental study	Mixed-gender teams of 4-5 individuals, the team appointed members leaders for the task of leading the team to prepare the presentation material and to give the presentation.	Before the presentations started, followers read that either males or females are better communicators.	Leader gender condition (stereotype advantage or stereotype threat), leader gender (male or female) and follower gender (male or female)	Team identification and gender identification measured after the manipulations	Observed presentations skills	(1) Female followers and high team identifiers rated male leaders significantly higher when males were under stereotype threat compared to when the stereotype favourably related to males. (2) Female followers rated female leaders significantly lower when stereotype threat applied to females than when the stereotype advantaged females. (3) Male followers rated both female and male leaders marginally higher when the leaders' genders were under stereotype threat than when the leaders' genders were advantaged by the stereotype.

Appendix 32

Study 3 Summary Table

Sample	Team composition, leaders and study scenario	Manipulations	Independent variables	Independent predictors (measured)	Outcome measures			Findings
					Followers' assessment of the leader's performance	Leader-follower proximity	Follower's self-assessment	
Students, $N=41$, in-class study	Single-sex teams of 4-7 individuals represented interest groups in the energy industry. Leaders were appointed by the lecturer. After 15 minutes of team work the leaders represented their teams in a committee meeting.	After the leaders left for the committee meeting, the followers read either that (a) females were better leaders, (b) males were better leaders, (c) or that there was no gender difference in terms of leadership.	Gender (male or female) and condition (control or stereotype threat)	Team identification, gender identification and leader's effectiveness measured before the manipulations	Predicted performance in the committee meeting	Composite measure of identification with the leader, prototypicality, collective threat and pride in similarity with the leader.	Follower's self-efficacy for leadership	(1). Female followers rated female leaders lower under stereotype threat than in the control condition in terms of leader-follower proximity. Similar but weaker results emerged for predicted performance. (2) High team identifiers indicated significantly less self-efficacy for leadership under stereotype threat than in the control condition.

Appendix 33

Study 4 Summary Table

Sample	Team composition	Manipulations	Independent variables	Independent predictors (measured)	Outcome measures				Findings
					Followers' assessment of leader's performance	Leader-follower proximity	Follower's self-assessment	Text responses	
Employees in companies, <i>N</i> =51, Online experimental study.	Respondents selected an effective leader from their professional work lives and provided demographics on the leader and the team.	Using published media articles, in the stereotype threat condition respondents with female leaders read that females were not good leaders; respondents with male leaders read that females were better leaders than males. In the control condition the respondents read an article about the green agenda and leadership.	Leader gender condition (stereotype advantage or stereotype threat), leader gender (male or female) and follower gender (male or female)	Team identification, gender identification and leader's effectiveness measured before the manipulations	Respondents imagined their leader representing their teams in a company meeting. The measures included predicted performance, feelings about the leader's performance and the perceived skills of the leader	Composite measure of identification with the leader, prototypicality and collective threat	Self-efficacy for leadership	Followers' text responses to the manipulations, indicating thoughts that emerged while reading the article	Male respondents selected significantly more male leaders than female leaders. Female respondents did not confirm this finding. The leader's gender corresponded with the gender that was a numerical majority in the teams the leaders represented. Female respondents in text agreed that females make better leaders than males. Male respondents refuted the articles when either males or females faced threat. For the rest of the outcome measures the results were not significant.

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