What counts? : legitimizing female role models

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Abstract

The effect of exposure to female role models with gender specific attributes was examined in two studies. In Study 1 both women and men were presented with one of eight stimuli (role model gender: male or female; role model legitimacy attributes: organizational high, organizational low, social high, or social low). Results demonstrated women’s higher preference for female role models and vis-à-vis. Regression analyses demonstrated women’s preference for role models in general while men only preferred socially legitimate role models. In Study 2 both participants and role model exposure were limited to only women. Additionally a stereotype threat manipulation was added. Participants were presented with one of four conditions (stereotype threat: stereotype threat or androgynous identity threat; role model legitimacy attributes: organizationally high, socially high). Results generally demonstrated interactions between stereotype threatening condition and role model legitimacy attributes such that under androgynous identity stereotype-threatenining condition led to higher self-perceptions.
What Counts? Legitimizing Female Role Models

Although there are many individuals who would be quick to claim that gender discrimination has ended, recent statistics suggest that women still face distinct disadvantages today-- particularly within elite level leadership domains. In 2006, women made up only 23.4% of the Corporate Executive Officers in United States and less than 3% of the CEOs of Fortune 500 Companies (U.S. Bureau of Labor Statistics, 2006; Catalyst, 2006). Further, within the political domain, women are more likely to vote than men, yet they are greatly outnumbered in governmental offices. For example, in the 2008 general election 70.4 million women voted and further 9.7 million more women voted than men (Center for American Women & Politics, 2010); yet, despite their remarkably high involvement on the political front as well as their voter turnout, they women only make up about 17% of the members of the U.S. Senate and a mere 16.8% of the House of Representatives (CAWP, 2010). Though on the surface there is currently the common belief that gender discrimination has long ended, these statistics strongly demonstrate a gendered gap still exists in terms of leadership representation within the United States.

Here, we explore some of the hurdles women must overcome before reaching their ultimate goal as well as sources to help them in their challenge along the way.

Seeing the Difference: Perceptions of Female Leaders

The lack of women in key leadership positions reinforces stereotypical qualities associated with women and men. Eagly and Carli (2007) note that by simply classifying an individual as either male or female, certain gender-related expectations and mental associations arise. In particular, men are frequently associated with power and dominance
while women are associated with submission and dependency. These stereotypes, or beliefs that have become commonly held by society about particular groups, of women and men derive, in large part, from the social roles historically, and currently, held by each gender (Eagly & Carli, 2007). Within the leadership domain, women face challenges and obstacles in their attempts to succeed due to the stereotypical challenges in the leadership domain. These stereotyped perceptions evolve from the largely unequal proportion of men to women holding highly rated, successful leadership positions. Past research demonstrates that these stereotypes result in discrimination against women that keep them from attaining high-level leadership positions in several domains including corporate, educational, political, and the military (Boldry, Wood, & Kashy, 2001).

Many of the barriers women face in their attempts to attain high-level leadership positions stem from implicit biases and schemas held by society. These beliefs and negative stereotypes have ultimately led to the lack of women high-level leadership positions in the United States (Eagly & Carli, 2007). Recent research suggests that implicit biases arise as a result of stereotypes that can exist on racial, ethnic, gendered, or any number of additional levels (Steele & Aronson, 1995). Stereotypes about gender interact with an individual’s knowledge and experiences to create subconscious biases which later influence the ways in which an individual feels about the ways in which men and women should behave. For example, gender schemas explain why strangers automatically respond to girls dressed in pink with, “she’s so sweet!” while boys dressed in blue with “he’s so strong!” The mind subconsciously creates biases through its tendency to order and categorize our experiences into schemas. From a cognitive viewpoint, schemas are frameworks or groupings, which allow one to quickly retrieve and organize knowledge based on one’s previous experience,
and thus process large amounts of information quickly and effortlessly. Thus within the leadership domain, female leaders often face discrimination due to the negative stereotypes which exist regarding their position within the leadership sphere.

Research suggests that people possess opposing schemas for men and women in the workplace and thus evaluate them differently according to these gender schemas (Foldy, 2006). Social role theory (Eagly, 1983) suggests that these popular gender schemas tell one that females are expected to take on more communal, caregiver roles focusing on the well-being of others while men are expected to be more agentic (or capable of exerting self-agency) through control, assertion, strength, and independence (Cuadrado et al., 2008; Heilman, Martell, & Simon, 1988; Schein, 1973). These roles are greatly influenced through stereotypes that dictate how groups perceive individuals, as well as how individuals perceive themselves. As individuals hold stereotypes with regard to gender they too hold them with regard to the prototypical leader and the characteristics which the individual holding this position must evoke.

According to implicit leadership theory, most people hold some sort of prototype or ideal image for what it means to be called a leader. Most often these prototypical images emerge from an individual’s interactions and experiences with leaders and leadership and tend to be based upon the frequency of certain types of behaviors within a specific sphere (Coleman, 2004). Thus, as we encounter new people we are constantly evaluating them according to our previous experiences in order to establish clear cognitive categories which will classify them as either leaders or non-leaders (Lord, De Vader, & Alliger, 1986; Calder, 1977). Thus, if an individual displays similar attributes and behaviors to prototypical leaders they are labeled as “leader.” Once an individual is given the label of leader,
perceivers use their personal implicit leadership theory as their basis for typical leader behavior and frequently have difficulty distinguishing between different behaviors that are typical of leadership (Lord & Maher, 1991). These implicit theories ultimately play an enormous role in the development of a meaningful framework, guiding individuals toward a precise goal as well as a predetermined understanding of events to be retrieved and utilized in the future. An individual’s implicit theory of leadership, including his or her projected prototype of leader behavior, holds a set of organized expectations to be exemplified by that leader. A prototypical leader is frequently one who is dominant, aggressive and assertive. Ultimately if these expectations are met, the leader may gain a greater influence, however in the event that the leader does not match the individuals predetermined expectations the leader is likely to lose respect and influence (Kenney, Blascovich, & Shaver, 1994). It is because of the stereotypes which stem from sex role qualities, and the association between agentic qualities and leadership, that people tend to perceive and associate women less frequently with leadership positions. It is unexpected for women to hold leadership positions (Johnson et al., 2008).

Eagly and Karau’s (2002) role congruity theory further explains the apparent mismatching between women who and the leadership role. This theory argues that there exists a fundamental incongruency between female gender schemas and leader schemas, which are the result of gender stereotypes. Thus, gender stereotypes cause others to perceive women in leadership roles more negatively than they do men in the same positions. Eagly argues that it is this supposed incongruity between women’s gender roles and the leadership prototypes set up through implicit theories of leadership, which ultimately helps explains the lack of women in leadership positions today. Nye and Forsyth
found that women, in particular, suffer from prototype-based biases as the associations of their gender role lead them to be viewed as incongruent with the prototypical leader role and thus cause them to be evaluated more negatively as leaders. Therefore women’s more “communal nature” put them at odds against the societal perceptions of leadership and thus leads to prejudice and discrimination against them. Modern female leaders are expected to demonstrate qualities which are feminine enough to perform their gender-stereotypical roles and yet masculine enough to take on the agentic traits of leadership. Thus, women are faced with a double-bind: women are punished for being “too masculine” and overstepping their boundaries as agentic leaders or they are penalized in their career for holding back and fulfilling gender stereotypical roles, therefore making it impossible attain a leadership position.

Pre-existing stereotypes can severely limit women’s determination and likelihood to attain leadership positions. Feeling threatened by such stereotypes, women are likely to perform worse on tasks that are incongruent with gender-related stereotypes. Stereotype threat is a condition that results when individuals are placed into a situation, in which they fear conforming to the stereotypical expectations of them, which can ultimately lead to a detriment in their performance. This phenomenon has been studied in great detail by Steele and Aronson (1995), who stress that the stereotype must be made salient to the individual, in order for negative stereotype to be detrimental to the individual’s performance. Thus when the individual is aware of the possibility of fulfilling and conforming to a negative stereotype, it becomes self-threatening as a result.

In his 1995 study at Stanford University, Steele tested the theory of stereotype threat in relation to African American students and perceptions of their intellectual
capacity. After giving African American and Caucasian participants a challenging verbal task from the Graduate Requirement Exam (GRE) he manipulated whether participants were told that their test would be diagnostic of their ability (stereotype threat), or not diagnostic of ability (control condition). In the diagnostic condition, black participants scored significantly lower than whites, as opposed to the equal performance in the control condition. Steele and colleagues’ results demonstrate the detrimental effects of stereotype threat when a stereotype is made salient and subsequently internalized by the individual. This internalization leads to a certain fear of failure, which is often felt when one is at risk of confirming a negative stereotype of their group (Steele & Aronson, 1995). Likewise when women are faced with gender counter-stereotypical tasks (such as math, science or leadership) the apprehension of fulfilling negative gender schemas can be so strong it can cause them to perform worse on leadership and male-stereotyped tasks when gender is explicitly activated (Bergeron, Block, & Echtenkamp, 2006) or implicitly activated through the use of gendered priming through the use of commercials or magazine advertisements (Davies, Spencer, and Steele, 2005; Hoyt & Simon, 2010; Kray, Thompson, & Galinsky, 2001). Negative stereotypes about gender threaten women’s views of their leadership ability and likewise, tend to negatively impact their performance in these roles.

Female Role Models

With several factors complicating and inhibiting women’s attempts to achieve success within the leadership domain, how have those fortunate enough to attain their goal done so? One of the paramount ways for women to achieve success in gender counter-stereotypical fields is by seeking out relationships with positive role models. Research suggests that role models are particularly important for individuals in disadvantaged
situations. Leon Festinger’s (1954) theory of social comparison explains that individuals evaluate their own needs and desires by making social comparisons to those whom they perceive as sharing similarities with themselves. In particular, individuals tend to choose role models based on the match between their career aspirations and goals with the career held by the role model. Role models can offer role-expectation information, performance standards, and skill expertise, which can contribute increased positive self-evaluations and self perceptions, specifically aiding in increasing self-efficacy towards a particular task (Bandura, 1977a).

Self-perceptions or self-evaluations are cognitive-affective processes, which are activated by information, which is salient or important to the self. Individuals evaluate themselves on the basis of their self-worth, control over the situation, the vulnerability in given situations as well as their competence of the task (Judge et al., 2003). In particular, self-efficacy has been shown to influence the extent to which people will devote effort to a task, as well as how long they will persevere when faced with challenging situations. Thus, a woman with high self-efficacy attempting to gain success in male dominated domain such as leadership is more likely to persevere than a woman with low self-efficacy (Bandura, 1997). By observing and imitating a positive female role model, women in leadership roles often hold higher self-evaluations and self-perceptions, including increased leadership self efficacy than those without these positive exemplars.

Gibson (2004) defines a role model as a ”cognitive construction based on the attributes of people in social roles that an individual perceives to be similar to in terms of attitudes, behaviors, goals, or status position to him or herself to some extent and desires to increase perceived similarity by emulating those attributes” (p.136). While men tend to
seek out these individuals less frequently than women, several studies have demonstrated the importance of role models in the workplace for women. Those women who actively seek out superior female exemplars tend to reap benefits such as faster promotion as well as a higher salary. Individuals tend to identify with these role models are thus motivated by them (Hartman & Hartman, 2008; Murrell & Zagenczyk, 2006). Moreover, recent research has demonstrated that students who were exposed to role models who had successful careers in nontraditional fields were more likely to consider these nontraditional careers than those students who were not exposed to role models. These studies, in addition, found that exposing students to these role models through either written materials or videos further increased their likelihood of choosing nontraditional vocations (Quimbly & DeSantis 2006). Because a role model is self-chosen on the basis of personal and shared similarities of attributes and goals, the defining characteristics which lead one to be thought as a “successful role model” are deemed imperative to the individual’s selection. Past research has demonstrated differing attributes, which are considered to be “important” in order for an individual to be perceived as a useful role model (see Gibson & Cordova, 1999; Murrell & Zagenczyk 2006).

In 2006, Murrell and Zagenczyk performed an empirical social networking analysis of workplace relationships in order to determine the traits which are required for individuals within the workplace to be perceived as role models. They argued that notions of leadership, influenced by status and success are gendered constructs impacted by organizational culture. Thus these gendered differences skew the disparate proportion of women versus men in formal leadership roles. As hypothesized and consistent with past research, when asked to identify role models, women preferred female as opposed to male
role models. In addition, Murrell and Zagenczyk found pronounced differences between those characteristics, which legitimized female role models versus those, which qualified males as legitimate. In order to be perceived as an exemplary role model, women (more than men) had to demonstrate superior organizational legitimacy while men only had to demonstrate successful relationships through informal social ties.

An individual with high organizational legitimacy must achieve more recognition within the formal structure of the organization as a way of validating their status as experts, top performers or leaders and additionally they tend to hold fewer strong ties within informal high status structural networks. Thus, those female role models who were legitimized by their peers and subordinates were recognized for their rewards and achievements in leadership within the organization. Men however only had to demonstrate low to moderate social legitimacy in order to be perceived as a role model. This organizational attribute was recognized through their participation or relationships within social networks with others within the organization. In particular, they were recognized for the positions they held within task oriented formal networks as well as informal high status networks. Thus men were recognized for their abilities to attain positions within “old boys’ networks” whereas women only achieved role model status after attaining high organizational success (Murrell & Zagenczyk, 2006).

Though past research has investigated the efficacy of role models on individuals’ task performances, few have focused on the gender differences of role models. Further there is differing research as to the effects of role models. While some research suggests that in general, role models have a positive impact on women’s self-perceptions (See
Lockwood, Jordan, & Kunda, 2002), other research has demonstrated the detrimental effects of superior female role models (see Hoyt & Simon, 2010; Lockwood & Kunda, 1997).

Overview of Studies

The present study aims to examine more in-depth the findings of Murrell and Zagenczyk's (2006) study, particularly by exploring the defining attributes of what legitimizes female role models within the leadership domain. Further the present research will attempt to explore the impact of negative gender stereotypes in the domain of leadership and the ways in which a female role model has either positive or detrimental effects. In Study 1 it is expected that participants will chose preferred role model according to the attributes possessed by the role model. Study 2 explores in more depth the impact of role model legitimacy as well as adds a investigating the role of stereotype threat.

Study 1 Overview & Hypotheses

In Study 1 we examined the role of participant sex in selecting role models based on specific attributes. The role model attributes that were examined were sex and type of legitimacy. We therefore posed the following:

H1: We hypothesized that, in general, female participants would show a stronger preference for female role models while male participants would show a stronger preference for male role models.

H2: Based on the findings of Murrell & Zagenczyk (2006) we hypothesized that female participants would show a stronger preference for role models who demonstrated high organizational legitimacy while male participants would demonstrate a stronger preference for role models who demonstrated high social legitimacy.
**Study 2 Overview & Hypotheses**

In Study 2 we explored in more depth the attributes of organizational legitimacy and social legitimacy of female role models and likewise included a component of stereotype threat in order to manipulate women’s self-perceptions about leadership. Specifically we posed the following hypotheses:

**H1:** We hypothesize that there will be an interaction effect between the condition of stereotype threat and role model attributes; in particular we predict that the type of legitimacy the role model possesses will greatly impact women’s self-perceptions in the identity safe condition. Specifically the socially legitimate role model will result in higher leadership-relevant self-perceptions than the organizationally legitimate role models.

**Study 1 Method**

*Participants & Design*

One-hundred forty four racially diverse participants (85 female, 56 male) from the University of Richmond, were recruited via Spiderbytes, a daily e-mail communication system sent out to all University students offering to be entered in a drawing to win one of four $20 cash prizes by participating in an online survey. Female and male participants were randomly assigned to one of eight conditions and completed the consent forms and questionnaire entirely online utilizing the Survey Monkey website. The study utilized a 2 (Role Model Gender: Male or Female) x 4 (Role Model Legitimacy Attributes: Organizational High, Organizational Low, Social High or Social Low) between subjects design. Within this design we counterbalanced participant gender within the role model attribute assignment.
Procedural Overview

Upon e-mail correspondence with the experimenter, each participant was randomly assigned to one of eight role model conditions. The experimenter instructed each participant to follow the link provided and was thanked for his or her participation in the experiment. The link brought the participant to the survey, which he/she completed at his/her leisure. Upon completion of the survey the participant was entered to win one of four $20 cash prizes.

Role Model Manipulation

Based on the results of Murrell & Zagenczyk (2006), we manipulated role model attributes on the basis of traits attributing to their legitimacy (organizational or social). Each participant was presented with one of eight short vignettes describing either a male or female role model. The sex of the role model was manipulated with sex-specific first names and pronouns references (Female: Pam, Male: Sam). For example in the high organizational legitimacy condition participants read the following vignette:

“Pam is highly recognized by co-workers within the formal structure of the organization for which she is the President and CEO. She is a very good worker”

After reading the vignette participants responded to 15 questions regarding their opinions about the role model.

Measures

Role Model Preference: To assess the preference for same-sex role models participants were asked to respond to six items. Example items include, ‘I would want this individual to be my role model’ and ‘I believe this person would be a good role model’.
Participants responded on a 6-point likert scale from 1 (strongly disagree) to 6 (strongly agree). The scale was highly reliable ($\alpha = 0.77$).

**Manipulation Checks**

*Organizational Legitimacy:* To assess conditions of high and low organizational legitimacy participants were asked to respond to one item, ‘I believe this individual holds legitimacy within the organization that they work’.

*Social Legitimacy:* To assess conditions of high and low social legitimacy participants were asked to respond to two items, “I believe this individual has a strong social network within the organization that they work,’ and ‘I believe this individual has a good social network’ ($\alpha = 0.85$).

**Study 1 Results**

In Study 1 we predicted that female participants would show a stronger preference for female role models than for male role models that male role models would demonstrate a stronger preference for male role models than for female role models.

**The Effect of Role Model Sex and Legitimacy on Participant Preferences**

To test for between group variance, the dependent variable of role model preference was analyzed utilizing a univariate analysis of variance in which role model sex and legitimacy were the independent variables (sex: female or male, legitimacy: high organizational, low organizational, high social, low social). Analyses revealed a significant main effect of legitimacy $F (3, 128) = 26.29, p = 0.00$. Participants preferred role models with high organizational legitimacy and high social legitimacy over those with low organizational legitimacy and low social legitimacy (See Figure 1). There was no
interaction between participant sex and role model legitimacy. Thus hypothesis one was not supported.

Analyses revealed a significant main effect of between participants’ gender and their preference for same-sex role models, $F(1, 128) = 3.62, p = 0.059$, such that female participants showed a stronger preference for female role models ($M = 3.84, SD = 0.80$) than for male role models ($M = 3.64, SD = 1.08$) and male participants a stronger preference for male role models ($M = 3.93, SD = 0.91$) than for female role models ($M = 3.53, SD = 0.68$) (see Figure 2).
Study 1 Discussion

In Study 1 the primary goal was to establish role model legitimacy by manipulating the traits, which he or she possessed. Based on the results of social network analyses performed by Murrell and Zagenczyk (2006) we expected that female participants would prefer those role models who possessed high organizational legitimacy and male participants to prefer those role models who possessed high social legitimacy. Though participants did have a stronger preference for same-sex role models, our results did not strongly support our hypotheses with regard to preference for gendered role model qualities. The regression analyses indicate that both types of legitimacy are important for females, however social legitimacy appears to be more important for men.

Study 2

In Study 1 we examined the extent to which participants preferred role models of the same sex as well as the extent to which they preferred the role model’s legitimizing gendered attributes. In Study 2 we further explore gendered role model attributes of organizational and social legitimacy but also factor in a component of stereotype threat. The stereotype threat bias assumes that participants would prefer a role model with those qualities consistent with the female gender, and thus would prefer a female role model with high social legitimacy in identity safe conditions.

Study 2 Method

Participants & Design

Forty-seven female participants similar in demographics to Study 1, from the University of Richmond participated in Study 2. Some participants were required to participate in the experiment in order to fulfill an assignment for an Introduction to
Leadership class. Others were recruited via e-mail correspondence and the social networking website, Facebook advertising participation in a 15-20 minute psychology experiment. Participants were randomly assigned to a condition and completed the consent form and questionnaires individually. This study employed a 2(Role Model Legitimacy Attributes: High Organizational Legitimacy or High Social Legitimacy) x 2(Stereotype Threat Condition: Identity Safe or Stereotype Threat) between subjects design.

Procedural Overview

The procedure for Study 2 was similar to that of Study 1. Participants completed the study online via www.surveymonkey.com.

Stereotype Threat Manipulation

Upon completion of the initial consent form participants were asked to read one of two fictitious articles about leadership (article adapted from Gupta, Turban, & Bhawe, 2008) either titled “Henry Ford and Thomas Watson: Go Get ‘em! Leaders Show Characteristics of Both American Masculinity and Femininity, Harvard Study Shows by Chris Smith” (identity safe condition) or “Henry Ford and Thomas Watson: Go Get ‘em! Leaders Show Characteristics of American Masculinity, Harvard Study Shows by Chris Smith” (stereotype threat condition) (See Appendix).

Role Model Manipulation

After reading one of the two aforementioned articles, participants read definitions explaining organizational and social legitimacy and were then exposed to one of two vignettes describing a female role model with either high organizational legitimacy and moderate social legitimacy or high social legitimacy and moderate organizational
legitimacy. Participants were told directly that either role model was either high in organizational legitimacy or high in social legitimacy and then given details with regards to these attributes.

Utilizing the attributes found by Murrell and Zagenczyk (2006) to be impactful on females within an organizational setting, we manipulated the role model conditions (See Appendix). For example, in the organizationally legitimate role model condition, the role model was described as being “highly recognized by co-workers within the formal structure of the organization for which she is the President and CEO” while in the high social legitimacy condition the role model was described as having “established friendships and ties with other individuals, which have helped her find greater success among her peers”.

After reading the article and the vignette, participants were asked to complete a set of questionnaires. After completing all questionnaires participants were taken to a debriefing page thanking them for their participation and informing them of the true purpose of the experiment. Participants were informed that the articles they read were fictitious.

*Measures*

*Manipulation Checks*

*Organizational Legitimacy:* To assess conditions of high and low organizational legitimacy participants were asked to respond to one item, “I believe this individual holds legitimacy within the organization that they work”

*Social Legitimacy:* To assess conditions of high and low social legitimacy participants were asked to respond to two items, “I believe this individual has a strong social network
within the organization that they work,’ and ‘I believe this individual has a good social network’ (α = 0.83)

**Leadership Efficacy.** Murphy (1992) developed the Self Efficacy for Leadership (SEL) questionnaire to measure individuals’ self-efficacy regarding their general leadership abilities. Leadership efficacy was measured using eight items. Samples of these items included, ‘I know what it takes to make a work group accomplish its tasks,’ ‘In general, I am very good at leading a group of my peers,’ ‘I am confident of my ability to influence a work group that I lead,’ ‘I know what it takes to keep a work group running smoothly,’ ‘I know how to encourage good work group performance,’ ‘I feel comfortable allowing most group members to contribute to the task when I am leading a work group,’ and ‘Overall, I believe that I can lead a work group successfully.’ (α= 0.87)

**Leadership Confidence.** Participants’ confidence in their leadership abilities was measured using seven items. These items included ‘I have the ability to give directions clearly,’ ‘I have the ability to persuade others,’ ‘I have the ability to communicate my thoughts in an organized way,’ ‘I have the ability to get others to follow my directions,’ ‘I have the ability to be a qualified leader,’ and ‘I have the ability to perform as a leader’ (α= 0.83).

**Leadership Identification.** Participants’ identification with the domain of leadership was measured using four items, which included: ‘Leadership is important to me,’ ‘I am a leadership-oriented person,’ ‘I intend to pursue a leadership-oriented career’ and ‘It is important to me that I occupy leadership roles in my future endeavors’ (α=0.93).

**Leadership Aspirations.** Participants’ intentions to lead in the upcoming group task were measured using five items. These items included: ‘I would like to be selected as
leader of the upcoming group task,’ ‘I would do an effective job as leader of the upcoming group task,’ ‘I deserve to be selected as leader of the upcoming group task,’ ‘I would work hard as leader of the upcoming group task,’ and ‘I hope that I am NOT selected as leader of the upcoming group task’ (α=0.86).

_Self-Esteem._ Social self-esteem was assessed after participants responded to an open-ended question asking to describe how the role model read about impacts their future leadership aspirations. Using a modified version of Heatherton and Polivy's (1991) state self-esteem measure participants responded to seven items. Examples included: ‘I feel as competent as others,’ ‘I feel confident about my abilities,’ ‘I feel inferior to others at this moment,’ (reverse coded) and ‘I feel confident that I understand things,’ (α=0.84).

**Study 2 Results**

All dependent variables (Leadership Self-Efficacy, Confidence in Leadership Ability, Identification with the Leadership Domain, Self-esteem, and Leadership Aspirations) were analyzed utilizing univariate analyses of variance in which stereotype threat condition (stereotype threat condition: stereotype threat or identity safe) and role model legitimizing attributes (attributes: High Organizational Legitimacy or High Social Legitimacy) were the independent variables. The self-report measures asked participants to indicate their degree of agreement according to a 6-point likert scale ranging from 1 (strongly disagree) to 6 (strongly agree).

_Self-Efficacy for Leadership._ The analyses revealed a significant interaction between stereotype threat condition and role model legitimizing attributes, $F (1, 44) = 8.76, p = 0.005$. Under identity safe conditions, exposure to socially legitimate role models resulted
In participants reporting significantly greater levels of self-efficacy for leadership than exposure to organizationally legitimate role models (See Figure 3). Type of role model did not have an impact on self-efficacy for leadership in the threat condition.

**Leadership Confidence.** There was a significant main effect of role model legitimacy on participants leadership confidence $F(1, 44) = 12.60, p = 0.001$. The analyses revealed a significant interaction between stereotype threat condition and role model legitimizing attributes, $F(1, 44) = 12.60, p = 0.001$ Under identity safe conditions, exposure to socially legitimate role models resulted in participants reporting significantly greater levels of leadership confidence than exposure to organizationally legitimate role models (See Figure 4). Type of role model did not have an impact on leadership confidence for leadership in the threat condition.
Leadership Identification. There was a significant main effect of role model legitimacy on participants leadership identification $F(1, 44) = 17.03, p = 0.00$. The analyses revealed a significant interaction between stereotype threat condition and role model legitimizing attributes, $F(1, 44) = 11.37, p = 0.001$. Under identity safe conditions, exposure to socially legitimate role models resulted in participants reporting significantly higher levels of leadership identification than exposure to organizationally legitimate role models (See Figure 5). Type of role model did not have an impact on leadership identification threat condition.

Leadership Aspirations. There was a main effect of role model legitimacy on participants leadership aspirations $F(1, 44) = 3.98, p = 0.053$. The analyses revealed a significant interaction between stereotype threat condition and role model legitimizing attributes, $F(1, 44) = 4.25, p = 0.05$. Under identity safe conditions, exposure to socially legitimate role models resulted in participants reporting significantly higher leadership aspirations than exposure to organizationally legitimate role models (See Figure 6). Type of role model did not have an impact on leadership aspirations in the threat condition.
Self-Esteem. Analyses revealed no main effects for self-esteem. There was a significant interaction between stereotype threat condition and role model legitimizing attributes, $F(1, 44) = 7.24, p = 0.01$. Under stereotype threatening conditions, exposure to organizationally legitimate role models resulted in participants reporting significantly greater levels of self-esteem than those exposed to socially legitimate role models. However, under identity safe conditions exposure to socially legitimate role models resulted in participants reporting significantly higher self-esteem than those exposed to organizationally legitimate role models (See Figure 7).
Study 2 Discussion

The purpose of Study 2 was to explore more in depth the qualities and situations that result in effective female role models. Specifically, we were interested in the extent to which socially or organizationally legitimate role models impacted female students’ self-perceptions regarding leadership. Further, we wanted to explore how the threat of stereotype interacted with these role model attributes.

We hypothesized that participant’ self-perceptions regarding leadership would be positively effected when under identity safe conditions. Our results demonstrated that when exposed to a socially legitimate role model under these conditions that participants’ leadership self-efficacy, leadership confidence, leadership identification and leadership aspirations were significantly higher than when exposed to an organizationally legitimate role model. For self-esteem, when under identity safe conditions, socially legitimate role models increased participants’ self-esteem, however, when under stereotype threatening conditions participants reported higher self-esteem when exposed to organizationally legitimate. Thus, our hypothesis was supported in that socially legitimate role models tended to result in higher self-perceptions. However participants did not demonstrate higher self-esteem when exposed to a role model with high social legitimacy under stereotype threatening conditions but rather demonstrated higher self-esteem reports when exposed to organizationally legitimate role models.

General Discussion

In this research the primary purpose was to determine if the gendered legitimizing attributes of role models impacted participants self-perceptions about leadership. Further, we aimed to examine the extent to which these role models were inspiring or detrimental
to female participants when explicitly primed with stereotype threatening conditions. In Study 1, our findings indicate that consistent with previous research (Gibson, 2004; Hartman & Hartman, 2008; Murrell & Zagenczyk 2006), female participants preferred to have same-sex role models versus having a role model of the opposite sex. In Study 2 we only used female participants and female role models. In this study results generally demonstrated that under identity safe conditions (e.g. successful leaders have masculine and feminine traits) the role model with high social legitimacy led female participants to hold higher self-relevant leadership perceptions than when they were exposed to stereotype threatening conditions (e.g. successful leaders have only masculine traits). In terms of self-esteem, participants under identity safe conditions with exposure to a role model with high social legitimacy demonstrated higher self-esteem than those exposed to role models with high organizationally legitimacy.

Past stereotype threat literature has demonstrated the injurious effects of explicitly priming individuals with stereotype threatening conditions, or implicit priming through means such as media or magazine advertisements (Davies, Spencer & Steele, 2005, Hoyt & Simon, 2010). Due to the internalized apprehension of fulfilling negative gender schemas, women tend to perform worse on male-stereotyped tasks such as leadership or negotiation and further tend to have lower self-perceptions with regard to their abilities performing these tasks. Results from Study 2 however, did not demonstrate a main effect of stereotype threatening conditions. Moreover, exposure to role models with high social legitimacy tended to result in greater self-perceptions than did exposure to role models with high organizational legitimacy under identity safe conditions.
In Study 2 the stereotype threatening conditions did not result in negative effects on female participants’ self-perceptions about leadership. Some research has demonstrated effects that are counterintuitive to stereotype threat, that is, they demonstrate reactionary effects of stereotype threat in which participants perform better in stereotype threatening conditions. Psychological reactance theory states that if an individual perceives a threat, they tend to react and overcompensate than if they threat was not perceived (Brehm, 1966). Recent research on stereotype threat has demonstrated that when participants are made aware of the stereotype threat they are able to significantly improve their performance on stigmatized tasks. In some studies by informing participants that testing is not diagnostic of any significant stereotypical differences between men and women participants can be inoculated against stereotype threat in certain situations (Steele & Aronson, 1995; Good, Aronson & Harder, 2008). Kray, Thompson & Galinksy, (2001) experimentally manipulated the extent to which stereotype threatening conditions affected the performance of women in a negotiation task by telling participants that gender-relevant traits were predictive of their performance. Their results demonstrated reactance among women who were explicitly primed by making gender salient. The findings of the present study are consistent with the theory of reactance. When women were explicitly primed with a stereotype threat through an article, which stated that successful leaders had only the characteristics of masculinity, their self-perceptions for leadership and self-esteem, were significantly higher than those individuals exposed to identity safe conditions. Thus, by explicitly making female participants aware of their gender and the disconnect with leadership, their responses demonstrated overcompensation and reactance when asked their opinions about leadership.
In addition to the theory of reactance, literature with regards to the helpful effects of role models may explain why those individuals in the stereotype threatening condition demonstrated more positive self-esteem from exposure to role models with high organizational legitimacy than those exposed to role models with high social legitimacy. Wood and Bandura (1989) note that people attempt to fulfill personal objectives, such as success in the workplace, by partaking in social comparisons. As a means of social comparison, female role models can offer role expectations for success in gender counter-stereotypical fields. They often rely on mentors as a direct source of hope and inspiration.

In Study 2, the role model with high organizational legitimacy may have demonstrated success in a counter-stereotypical field thus female participant utilized her successes in order to gain a sense of confidence and build self-esteem within the leadership domain. This finding is consistent with that of Murrell & Zagenczyk (2006) who demonstrated that within a corporate organization, women in general preferred female role models who evoked organizational legitimacy. That is, they held leadership positions and were highly recognized within their organization for these positions. It is also noteworthy that the identified female role models in Murrell and Zagencyk’s study were able to balance home and work lives successfully. Thus in stereotypically threatening positions, female participants may have related to organizationally legitimate role models in their success to balance work with personal life. However, in stereotypically threatening conditions, socially legitimate role models elicited worse responses in terms of their self-perceptions regarding leadership and self-esteem.

When examining the qualities of both organizationally legitimate role models and socially legitimate role models, several theories exist which may explain why those
participants exposed to role models with high organizational legitimacy perceived themselves to have worse self-perceptions with regard to the leadership domain, especially under identity safe conditions. When examining past role model literature, specifically the literature that examines elite role models and superstar role models, it has been suggested that these role models can have negative, even injurious effects on women’s self-perceptions (Hoyt & Simon, 2010; Lockwood & Kunda, 1997). Lockwood and Kunda (1997) examined the negative impact of superstar role models on people’s self-perceptions. Focusing on the relevance of the role model and their attainability of success their results demonstrated that relevant “superstars” have an inspiring impact on people when their success is seen as attainable, however these superstars were shown to have somewhat of a self-deflation effect when their success was viewed as unattainable. Thus, while one might imagine that under identity safe conditions, organizationally legitimate role models may provide superior examples to women attempting to attain a high level leadership position, their successes and recognition within the organizational domain may seem unattainable to female students.

Limitations and Future Directions

Although our results demonstrated the positive and negative effects of role models within stereotype threatening conditions, several factors limit the extent to which our results can be generalized. Though participants in Study 2 were randomly assigned to conditions, the identity safe condition had almost half of the participants than did the stereotype threat condition thus possibly decreasing the effect size in this condition.

Further, participants were only exposed to one role model rather than a series of role models and were only exposed over a short period of time. While these role models
may have had an immediate impact, this impact may have been temporary. To improve upon these conditions, the effects of these role models should be determined over a longer period of time via “real world” exposure, such as the experimental procedure of Murrell and Zagenczyk (2006) or other experimental procedures.

Future research is necessary to determine whether or not these conditions and exposure to role models impact women’s perceptions with regard to the leadership domain. By exposing female role models to socially or organizationally legitimate role models either previous to or following a leadership task might increase the generalizability and real world applicability of this study. Additionally it is important to examine the true underpinnings of the priming conditions in terms of the ways in which either stereotype threatening or identity safe conditions affect women when exposed to particular types of role models. Finally the extent to which females working in groups in which they are the only female (a.k.a. the token female) versus in groups with multiple female members react to stereotype threatening situations should be further investigated.

Conclusion

The present research examined the extent to which the qualities exhibited by role models in organizational settings are preferred by men and women and whether these role model qualities inspired or depleted women’s self-perceptions regarding leadership. Specifically we examined these conditions when participants were only exposed to role models with gendered attributes and when only female participants were placed under stereotype threatening or identity safe conditions in the leadership domain. Our findings provide a number of unique contributions to the literature by specifically looking at roles models in domains for which individuals are the targets of a negative stereotype held
against their group. Specifically, we examined the extent to which these role models provide examples to young women in the leadership domain.

Building off of past research that has demonstrated the positive effects of exposure to counter-stereotypic information in reducing stereotypic beliefs (Dasgupta & Greenwald, 2001; Fazio & Olson, 2003), the present research provides further understanding as to the varying effects role models have on women’s leadership aspirations and self-perceptions in two ways. First, our findings show that members of stigmatized groups can benefit from exposure to role models who successfully provide stereotype-disconfirming information. In the present research, female role models with high organizational legitimacy possessed traits of successful leaders. Second, our findings offer a more detailed explanation for why outstanding role models might have counterintuitive and deleterious effects on women’s responses to leadership situations. Specifically, our findings demonstrate that women as members of stigmatized groups can be harmed from exposure to outstanding role models (i.e., top-level leaders) who possess qualities which seem impossible to attain, and thus serve as an activation of the harmful stereotype.

While role models who possess high social legitimacy provide women with positivity and encouragement in identity safe situations, organizationally legitimate role models may provide women with an example of a role model who may have the qualities and attributes of success, which seem too difficult to attain. Role models in general, appear to be particularly important for women in identity safe conditions, though the impact differs depending on the type of role model. In identity safe conditions, organizationally legitimate role models, who demonstrate outstanding success in leadership, may have self-deflating effects, while socially legitimate role models, who demonstrate successful
networking skills and established professional relationships may provide useful to women in the leadership domain. Thus, the injurious impact of highly successful female role models on women’s self-views and leadership aspirations in identity safe conditions raises a point of caution: if female leaders are perceived as exceptions to the norm and their personal attributes as impossible to attain, they may bring about more injury and harm than help and inspiration.
References


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Appendix


BOSTON, MA. Professor Smith at Harvard University finds passion in studying leaders, individuals who have successfully accomplished the process of social influence in which they can enlist the aid and support of others in the accomplishment of a common task. A new study by researchers at the Harvard University shows that most leaders possess typically masculine characteristics and these characteristics help leader succeed in their tasks. “The study reaffirms prevalent American thinking about leaders,” said Chris Smith, Harvard professor of leadership who conducted the study. Hundreds of new and established successful leaders were examined as part of the study. The researchers found that though one does not have to have all three of the vitally important characteristics to become or succeed as a leader, the more one has in common with these characteristics the closer the person is to being ready to try to go out on their own and successfully lead a group.

**Leaders are aggressive.** Leaders are born fighters and have aggression in their blood. As one successful leader famously said “I wanted to become a leader and if I had to step on somebody to be successful, I swear to God I was ready to stomp on the guy.” They will do anything to achieve their objective.

**Leaders are adventurous.** Leaders take risks by attempting to shape an environment conducive to making themselves extremely profitable. Not only this, the most successful leaders tend to engage in adventurous activities even outside of business. For example, one successful entrepreneur likes to go bungee jumping, another has a passion for high-speed all-terrain motor bike racing, and yet another gets an adrenaline rush by hunting for sharks.

**Leaders are independent.** Leaders do not count on getting support from others and believe that everybody is looking out for themselves. They believe that they alone control their destiny and no one else can tell them what to do or how to do it. “I do not have any supporting family or friends. The credit for what I have goes only to me and no one else” is what many successful leaders claim.

The research findings were not surprising, Smith said, as they confirmed what Americans had believed all along—so far as leadership is concerned, it pays to have masculine characteristics. The study will appear in an upcoming issue of *International Journal of Leadership and Leadership Education.*
Role Model Manipulation

Legitimacy is an important part of organizations; there are two types of legitimacy that are important: organizational legitimacy and social legitimacy. An individual with high organizational legitimacy achieves more recognition within the formal structure of the organization as a way of validating their status as experts, top performers or leaders and additionally tend to hold fewer strong ties within informal high status structural networks. An individual with high social legitimacy is recognized through their relationships or social networks with others within the organization, in particular for the positions they hold within task oriented formal networks as well as informal high status networks.

High Organizational Legitimacy

Patricia has high organizational legitimacy but only moderate social legitimacy. She is highly recognized by co-workers within the formal structure of the organization for which she is the President and CEO of a retail company that sells photo-customized merchandise throughout the United States. Through her hard work and dedication, “Make it YOUrnique”, which started out as a small retail company has grown to become a national success? In 2006 Fortune Magazine ranked her among the Top 100 most successful CEOs in the country. In addition to her national success, she plays a large role as the Vice President of Ryze, a social networking organization founded specifically for female CEOs and Presidents of large companies to share ideas and success stories. Within this organization she has established friendships and ties with other successful individuals, which have helped her find greater success among her peers. Within the workplace, her co-workers and employees speak highly of her ability to balance career and home life with her husband, Chuck, and two children. They also note her “down-to-earth” personality, willingness to listen to and give advice to her friends and employees.

High Social Legitimacy

Patricia has high social legitimacy but only moderate organizational legitimacy. She is the graphic designer of a retail company that sells photo-customized merchandise throughout the United States. At work her co-workers and friends consider her to be “an all around great and genuine friend” due to her willingness to listen and give advice to her peers. Pam maintains a central place within friendship and social networks at work. In addition to her large group of friends at work, she plays a large role as the Vice President of Ryze, a social networking organization founded specifically for individuals of large companies to share ideas and success stories. Within this organization she has established friendships and ties with other individuals, which have helped her find greater success among her peers. In 2007 she was awarded Best Mentor at work for her ability to effectively give advice and guidance to fellow group members with regard to work-related issues and tasks. Through Ryze, she has established a large network of friends and colleagues with whom she has established professional relationships. Just recently, Patricia guided a large group of her colleagues on a hiking and camping trip along the Appalachian Trail to increase group cohesion at work. Patricia’s friends note her great ability to network with others in order to get what she wants.