

The Impact of Role Model Similarity on Women's Leadership Outcomes

Yashna J. Shah

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Roseanne J. Foti, Chair

Neil M.A. Hauenstein

Danny Axsom

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ABSTRACT

Role models can serve as a means to counteract the prevalent 'Think Leader, Think Male' stereotype. This study was designed to assess the impact of role model similarity on women's leadership self-efficacy, task performance and future leadership behavior, using two conceptualizations of similarity – match with leadership self-concept and attainability of the role model. Additionally, the process by which one's self-perceptions of leadership impact judgments of one's own behavior was also investigated. Participants were presented with a role model vignette in a laboratory setting, following which they complete a leadership task. Results indicated that there were no significant effects of the interaction of the two role model manipulations on various leadership outcomes. However, match of role model with one's self-concept did impact one's leadership self-efficacy. Results also indicated that agentic leader prototypes partially mediated the relation between individuals' self-concept and self-judgments, such that participants whose self-concept matched the role model activated the agentic leader prototype. Overall findings suggest that match with one's self concept plays an important role in role models being perceived as similar to the self, which can have important implications for women's leadership development.

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Introduction

As of 2010, women comprised almost half (46.8%) of the U.S. labor force (U.S. Department of Labor, 2011) and obtained more than half of all higher-level degrees (U.S. National Center for Education Statistics, 2012). While women have made advancements in these domains, they are still underrepresented when it comes to leadership positions (Joy, 2008). Understanding the barriers women may face when seeking leadership positions and exploring means to overcome those barriers is key to reducing the gender disparity in leadership positions.

Research has shown that the role of a leader and the role of a woman are perceived to be incongruent (Eagly & Karau, 2000). Moreover, both men and women seem to share the ‘Think Leader, Think Male’ stereotype, i.e., both men and women seem to associate men with leaders (Schein, 1978). More recent research has shown that leader stereotypes continue to remain masculine (Koenig, Eagly, Mitchell, & Ristikari, 2011), thus providing an insight into why this disparity exists, despite the increase in women in the workforce over the past four decades.

When women are faced with these masculine leader stereotypes, it can undermine their self-efficacy and can result in stereotype threat such that women exhibit stereotype consistent behaviors. For instance, Hoyt, Johnson, Murphy and Skinnell (2010) found when women in leadership task situations were presented with information about the gender gap in top leadership positions and then had to lead a mixed-gender group, the women leaders’ self-efficacy, perception of leadership performance and self-esteem were negatively impacted. When women’s leadership self-efficacy is undermined, one possible consequence is they are less likely to engage in leadership behaviors or seek out leadership roles (Hoyt & Johnson, 2011). The result is a perpetuation of the ongoing trend where despite an increase in the number of women in the workplace, very few women occupy top leadership positions.

Role models can be effective in helping women counteract this stereotype threat and exhibit counterstereotypic behaviors (Latu, Mast, Lammers & Bombari, 2013; Asgari, Dasgupta & Stout, 2012). However, studies have shown mixed results as to the effectiveness of role models (Rudman & Phelan, 2010; Lockwood & Kunda, 1999; Latu et al., 2013). Attempting to resolve these mixed findings, Asgari et al. (2012) found that for role models to be effective, they need to be perceived as similar to oneself. When women perceived role models as similar, they reported an increase in career aspirations and a positive impact on leadership beliefs (Asgari et al., 2012).

Moreover, framing women leaders as similar to the self creates an overlap between women's self-concept and their mental representation of successful leaders. In interpersonal situations, the self plays an important role in defining the attributes most central to leader prototypes (Dunning, Perie, & Story, 1991). When asked to articulate the attributes most central to their conception of a desirable social category, people will tend to endorse those characteristics they believe themselves to possess. For example, if a person believes that he or she is dedicated, then that trait will be given a more central role in that individual's definition of an ideal leader than it would be given among people who feel they are not dedicated. Consequently, we argue that for role models to be effective and be perceived as similar, the role models need to match one's self-perceptions as a leader. Identifying with role models and perceiving that their level of success is attainable may be particularly important for women who are performing in a stereotyped domain.

Thus, in the current study, we manipulate role model similarity using two different similarity conceptualizations – match with one's leadership self-concept and attainability of the

role model. We investigate the impact of role model similarity on women's leadership self-efficacy, task performance and future leadership behaviors.

Gender and Leader Attributes

People believe that there are specific traits and behaviors associated with each gender, such that women are expected to be more communal (relationship oriented) whereas men are expected to be more agentic (Eagly, 1987; Fiske & Stevens, 1993). Communal characteristics ascribed to women include sympathy, kindness, and helpfulness – characteristics concerned with the welfare of others. Agentic characteristics attributed to men include aggression, confidence, independence, dominance – characteristics concerned with control and assertiveness (Eagly & Karau, 2002). According to Eagly and Karau's (2002) role congruity theory, prejudice against female leaders results from the incongruity between the *take charge*, or agentic, stereotype linked with leadership and the *take care*, or communal, stereotype associated with women. That is, the stereotypical image of a leader is someone who has agentic, masculine traits. Moreover, both men and women seem to share the 'Think Leader, Think Male' stereotype, and associate men with leaders (Schein, 1978).

Consequently, attributes ascribed to leaders tend to be masculine in nature as well. Schein (1973, 1975) found that characteristics endorsed by male and female managers for "middle managers" were more similar to the characteristics they endorsed for "men in general" as compared to "woman in general", thus also providing support for leadership positions being primarily associated with men. Heilman, Block, Martell and Simon (1989) found that people's attributes of men and middle managers are more similar than attributes of females and middle managers (i.e., people don't perceive women and managers the same way), with ratings of women and ratings of managers in general being negatively correlated ($r = -0.24$).

Extending Schein's (1973, 1975) work, Duehr and Bono (2006) found that attributes most characteristic of successful middle managers include leadership ability, competence, knowledge, consistency and self-confidence. These characteristics too appear to be more agentic than communal, again suggesting that successful leaders are associated with males. Studying both managers and students, Duehr and Bono (2006) found that while there was agreement across samples about the characteristics of managers, there was less agreement about the characteristics of women. Moreover, while male managers' views of women had changed since Schein's work, male students continued to hold gender stereotypes and viewed women as possessing fewer characteristics of successful managers.

Prototypes of male and female leaders. Just as individuals have expectations for how men and women should behave, they have expectations for how leaders should behave – or leadership prototypes. People are categorized as leaders based on the perceived match between their behavior or characteristics and the attributes contained in a preexisting prototype or image of a leader held in memory. Thus, our leader prototypes provide expectations for the attributes a leader possesses. The better the match between the leader's behaviors and characteristics and the prototype, the more positive are the reactions toward the leader (Lord, Foti, & De Vader, 1984; Foti, Bray, Thompson & Allgood, 2012).

Both Offermann, Kennedy and Wirtz (1994), and Epitropaki and Martin (2004) provide evidence for the dimensions captured in a leader prototype. Offermann et al. (1994) found that the leader prototype comprised of eight factors – sensitivity, dedication, tyranny, charisma, attractiveness, masculinity, intelligence, and strength. Sensitivity, dedication, charisma, attractiveness, intelligence and strength were found to be prototypical factors whereas tyranny and masculinity were found to be antiprototypical factors. Offermann et al. (1994) found no

difference in the factor structure of a leader prototype between undergraduate students and a working adult sample. A decade later, Epitropaki and Martin (2004) found a six factor structure that represented leader prototypes in organizational settings. These factors included sensitivity, dynamism, intelligence, dedication, masculinity and tyranny. Epitropaki and Martin (2004) also found evidence for these factors being stable over time, suggesting that one's content of a leader prototype remains fairly stable. Thus, these dimensions are most representative of the key characteristics people associate with leaders.

Johnson, Murphy, Zewdie and Reichard (2008) conducted a series of studies to understand how dimensions of the leader prototype are related to gender roles. The findings demonstrate that the leader prototype dimensions differ in importance for male and female leaders, supporting role congruity theory, and underscoring the importance of gender in leader prototypes. All of the prototype dimensions that were generated more frequently for male leaders than for female leaders were more agentic in nature and the single prototype dimension that was generated more frequently for female leaders than male leaders was more communal in nature.

Role Models

A possible way to bridge the gap between gender expectations and leader prototypes is to provide women with leader role models. Role models seem to impact individuals through upward or downward social comparison (Lockwood & Kunda, 1997). According to Lockwood and Kunda (1997), for the role model to have an impact, the role model has to be perceived as relevant. Moreover, the impact of the comparison, that is, whether the role model is effective or not, depends on whether or not the role model's success is seen as attainable. If the role model's success is perceived as attainable, the role model is inspiring. If the role model's success is

perceived as unattainable, the role model is seen as threatening and deflating (Lockwood & Kunda, 1997).

Studies have shown mixed results as to the effectiveness of role models (Rudman & Phelan, 2010; Lockwood & Kunda, 1999; Latu et al., 2013). Rudman and Phelan (2010) found that exposure to non-traditional role models (e.g., successful women in male dominated careers) decreased women's leadership self-concept and lowered their interest in more masculine occupations. This suggests that priming women with successful role models in non-traditional roles can lead to the role model's success being perceived as unattainable and thus render the role model ineffective. Lockwood and Kunda (1997) found that when role models were perceived as relevant and as having attainable success, the role model was inspiring and self-enhancing. Conversely, if the role model's success was perceived as unattainable, the role model tended to have a deflating impact. Their results suggest that how a role model is perceived plays an important role in how the role model will impact oneself.

On the other hand, Latu et al. (2013) found that subtle priming using a background picture of highly successful women leaders (e.g., Hillary Clinton and Angela Merkel) empowered women's self-evaluation and behavior in a leadership task involving giving a speech in a virtual reality environment. Women spoke less than men when they were presented with a picture of a male leader (Bill Clinton) or no picture. However, when women were presented with a picture of a female leader, the gender difference in speaking time disappeared. Furthermore, women showed a significant increase in speaking time when exposed to a female role model compared to a male role model or no role model, suggesting that a female leader may be seen as a more relevant role model as compared to a male leader.

Role model similarity. According to Asgari et al. (2012), for role models to be effective, they have to be perceived as similar to the self. Asgari et al. (2012) manipulated participants' similarity to women leader role models in three experiments, each using a different similarity manipulation. They manipulated whether the role model had been successful due to hard work that could also be achieved by others or due to a unique talent that others couldn't achieve easily, they provided feedback to the participants' saying they were similar to or dissimilar to the role model on a leadership dimension, and they used college affiliation to emphasize similarity or dissimilarity of the role model to the participants. They found that dissimilar leaders deflated participants' career goals and explicit leadership beliefs. Furthermore, there was a reduction in implicit self-stereotyping when role models were portrayed as similar.

Another factor that seems to impact role model similarity is the type of role model. Hoyt and Simon (2011) reported that role models in mid-level leadership positions were perceived as similar to the self as compared to those in a high-level leadership positions. Due to upward comparison, high-level elite female role models tend to have a detrimental effect on women's self-perceptions and leadership aspirations compared to male leaders and mid-level female leaders. On the other hand, individuals are more likely to identify with a mid-level role model and view their successes as attainable compared to an elite role model (Hoyt & Simon, 2011). Moreover, women presented with non-elite, mid-level female leaders tended to strongly identify with these leaders, had more positive responses to these leaders, as well as exhibited an increase in counterstereotypic thinking.

In addition to manipulating similarity using role models of differing attainability, we are also manipulating similarity in terms of match with one's self-perceptions of leadership. Since

self-perceptions impact our evaluations of others, such that we evaluate those who match our self-perceptions more favorably (Dunning, 2003), one's self-perceptions of leadership will also impact how the role model is perceived.

Self-Perceptions of Leadership

Dunning and colleagues (1991, 2003) suggest that one important source of people's leader prototypes is the self. More specifically, they propose that people use the way traits are configured in the self to form beliefs about how traits are aligned in leader prototypes. The self is pervasive in people's definitions of social categories as a way to maintain positive images about themselves. Thus, people's self-perceptions of leadership tend to have an impact on the development of leader prototypes, such that people tend to project their own leadership attributes and behaviors onto their prototype of a leader. For instance, whether a person thinks a leader is intelligent, strong or dedicated, depends on whether the person believes he or she possesses those characteristics.

Subsequently, people evaluate others favorably to the extent that the other matches the attributes and behaviors in their prototype (Dunning et al., 1991). Thus, if a person matches your self-perceptions of leadership, you are more likely to evaluate that person as a leader and give that person higher leadership ratings (Dunning et al., 1991).

Leader prototypes also serve as a standard for one's behavior (Lord & Maher, 1991). Thus, we argue that for the role model to be perceived as similar, the role model also has to match an individual's self-perceptions of leadership. Specifically, the participant will only perceive a role model as similar if the characteristics and attributes of the role model match that of the individuals' self-leader perceptions. Additionally, attainable, mid-level role models are perceived as similar compared to elite role models (Hoyt & Simon, 2011). Thus, role models

who match an individual's leader self-perceptions and are mid-level leaders will be more effective compared to role models who match an individual's self-leader perceptions and are elite, high level leaders.

Mediating Role of Leader Prototypes

In addition to the impact of role model similarity on leadership outcomes, we are interested in the process that mediates the relationship between self-perceptions and outcomes. People's self-perceptions of their own leadership abilities have an impact on the development of their ideal leader prototype and subsequent leadership judgments of others (Bray, Foti, Thompson, & Willis, 2014; Dunning, 2003). Bray et al. (2014) found that self-perceptions were more predictive of one's ideal leader prototype than the prototype being predictive of one's self-perceptions. Moreover, one's prototype mediated the relation between the self and one's judgments of leadership.

Similarly, Sy et al. (2010), when looking at the relationship between race and leadership perceptions, found that different patterns of prototypes (agentic and competent) mediated the relation between race and leadership perceptions of others. While leadership perceptions of Asian Americans were influenced by activation of competent prototypic attributes (i.e., intelligence and agentic), leadership perceptions of Caucasian Americans were influenced by activation of agentic prototypic attributes (i.e., masculinity, tyranny and dynamism).

While research supports the mediating role of leader prototypes between self-perceptions and judgments of others (Bray et al., 2014; Sy et al., 2010), we argue that leader prototypes would also mediate the relationship between self-perceptions and judgments of oneself. Since one's leader prototypes serve as a guide for one's own behavior (Lord & Maher, 1991), individuals who think of themselves as a good leader, will behave in accordance with the

attributes they think a good leader should possess and can compare their own behavior to the standards set forth in their prototype. People's prototypes are self-serving (Dunning et al., 1991), and these self-serving prototypes are used when making judgments about the self (Dunning, Meyerowitz, & Holzberg, 1989) and setting self-affirming performance standards (Dunning, 2003). Additionally, self-perceptions tend to lead to biased judgments and predictions of one's own behavior (Epley & Dunning, 2006). Consequently, one's self perceptions are a constraint on one's leader prototype, and how you see yourself as a leader is important to both one's behavior and one's prototype. Thus, in addition to one's leader prototype impacting one's judgment of others, leader prototypes can also impact judgments of one self.

Consequently, in a similar vein as Sy et al. (2010), since a prototypical leader prototype contains agentic characteristics as compared to a *lassiez-faire* leader prototype (Foti et al., 2012), a prototypical role model should activate agentic characteristics in one's leader prototype, for individuals with a prototypical leadership self-concept. This should hold as long as the role model matches one's self-perceptions of leadership. However, a female role model should activate communal characteristics for both a prototypical leader prototype as well as a *lassiez-faire* leader prototype. This should hold regardless of one's self concept, as communal characteristics will be activated based on gender roles. Subsequently, activation of these characteristics should also impact how individuals' perceived their outcomes.

Summary and Hypotheses

Hoyt and Johnson (2011) posit that gender role expectations can have an impact on female leaders' self-confidence, and self-esteem. Self-efficacy and self-esteem are related to increased leadership development behaviors (Boyce, Wisecarver & Zaccaro, 2005), and are traits argued to be critical to leader success (Hoyt & Johnson, 2011). Moreover, since both male and

female managers perceive females to have lower career aspirations (Hoobler, Lemmon & Wayne, 2014), these perceptions can impact the leadership opportunities afforded to women and can further undermine women's self-esteem and their belief in their leadership abilities.

Providing role models can serve as a possible approach to making women believe they can be successful leaders. Role models can also serve to counteract the belief that men make better leaders and buffer the negative consequences of such beliefs. Role models are most effective when they are perceived as similar to the self. There are multiple factors that impact whether a role model is perceived as similar or not (Asgari et al., 2012). One way to increase similarity is to have the role model match an individual's belief about what a leader should be like. One's own views of being a leader generates expectations of how leaders should behave (Dunning, 2003). Leaders who match these expectations are evaluated positively (Dunning et al., 1991). Consequently, when women are provided with a leader role model that matches their self-perceptions as a leader, they will perceive that role model as sharing the same attributes and characteristics as themselves, thereby perceiving the role model to be similar to themselves.

A second factor that impacts perceived similarity is the attainability or type of the role model. Elite role models are leaders occupying high-level leadership positions whose success is often seen as unattainable (e.g., a CEO). On the other hand, mid-level role models are leaders in non-elite positions whose success appears attainable (e.g., a successful manager). Hoyt and Simon (2011) found that mid-level role models are perceived as more similar to the self.

In the current study, I use two different conceptualizations of role model similarity to investigate the impact on leadership outcomes. Moreover, I posit that the two different manipulations for similarity will interact to strengthen perceived similarity, such that role models who match an individual's self-perceptions of leadership, and are mid-level leaders, will be more

effective and be perceived as similar compared to role models who match an individual's self-leader perceptions and are elite, high level leaders.

Hypothesis 1

There will be an interaction between match with leadership self-concept and type of role model, such that type of role model will have a stronger effect on leadership self-efficacy for the match condition compared to the non-match condition. More specifically, mid-level role models will result in higher leadership self-efficacy than elite role models in the match condition.

Hypothesis 2

There will be an interaction between match with leadership self-concept and type of role model, such that type of role model will have a stronger effect on task performance for the match condition compared to the non-match condition. More specifically, mid-level role models will result in higher task performance than elite role models in the match condition.

Hypothesis 3

There will be an interaction between match with leadership self-concept and type of role model, such that type of role model will have a stronger effect on future leadership behavior for the match condition compared to the non-match condition. More specifically, mid-level role models will result in higher future leadership behavior than elite role models in the match condition.

The role models used in this study contain characteristics and attributes of a prototypical leader. A prototypical leader prototype contains both agentic and communal characteristics. Research has shown that leader prototypes mediate the relation between the self and judgments of others (Bray et al., 2014; Sy et al., 2010). Since our self-perceptions also impact judgments of our own behavior (Epley & Dunning, 2006), I propose that match of role model with one's self-

concept influences judgments about the self through the activation of agentic leader prototypes. When presented with a role model, the match of that role model with one's self-concept will activate an agentic leader prototype compared to when the role model does not match. A communal leader prototype should be activated regardless of whether the role model matches one's self-concept given the role model is female.

Hypothesis 4

The relationship between one's leadership self-concept and leadership self-efficacy will be mediated by leader prototypes such that receiving a role model matching with self-concept (i.e., participants having prototypical self-concept) will activate an agentic leader prototype as compared to those receiving a role model not matching with self-concept (i.e., participants having laissez-faire self-concept), resulting in higher leadership self-efficacy for those receiving a role model matching self-concept compared to those receiving a non-matching self-concept.

Method

Participants

Data were collected from 196 female participants at a large, public, southeastern university who were recruited from introductory psychology classes. Participants were recruited using the SONA recruitment management system and they received extra credit as compensation for participation.

Participants' leadership self-concept was then analyzed a posteriori to select only those participants having a prototypical or laissez-faire self-concept. Leadership self-concept data was combined with data from Foti et al. (2012). A k means cluster analysis with four groups was used to sort participants into their respective leadership self-concept. Participants' leadership self-concept was determined after the experimental session to prevent attrition resulting from a two-step design involving screening of participants.

Thus, the final sample consisted of 101 students recruited from introductory psychology courses. Participants' age ranged from 18 to 25 years of age ($M = 19.66$) with 75.2% of the sample being Caucasian.

Design

A 2 (leadership self-concept: prototypical or laissez-faire) x 2 (type of role model level: elite, mid-level) between subjects factorial design was used.

An a priori power analysis was examined to determine the sample size required for finding effects. For a medium effect, power of 0.8 and $\alpha = 0.05$, a power analysis for an ANOVA with four groups revealed a total sample size of 128 (Cohen, 1992; G*Power 3.4). With our sample of 101 participants, for a medium effect and $\alpha = 0.05$, power was determined to be 0.70.

Procedure

Upon arrival to the laboratory, participants were given a brief overview of the study and were told that part of the study required being video recorded. Participants then gave informed consent (Appendix A). Participants were given a chance to ask any questions before continuing with the study. Participants then completed the leadership self-concept measure.

Next, participants were presented with a role model vignette and were asked to read the information carefully. In order to reinforce the manipulation of the role model vignette, participants were told they had ten minutes to reflect on the role model they read about and answer a few free response follow up questions. Participants were asked to write about whether they identified with the life and accomplishments of the role model, whether the role model fit with how they saw themselves as a leader and whether they might reach a similar level of success in their own field. Participants had to support their responses by picking specific examples from the vignettes. Participants then completed a leadership task where they were assigned the role of a leader. Participants were given 25 minutes to review the leadership task and decide how they would instruct their subordinates. When being video recorded for the leadership task, participants were led to believe that the instructions they presented as a part of the task, would be viewed by participants of another experimental study. Upon completion of the leadership task, participants completed a series of questionnaires including leader prototype, leadership self-efficacy, future leadership behaviors, manipulation checks and demographics. Participants were then thanked and debriefed, and informed that in reality, only the researchers would view their recordings.

Leadership task. Participants were asked to read a brief description of the leadership task, which included a set of instructions about a fictitious company and its new recruitment and

hiring process. Participants were told that they were to play the role of a Recruitment Manager and had to explain a selection and resume-screening task to their subordinates as well as relay instructions about how to complete the task. Participants were led to believe that participants in another study would occupy the role of their subordinate and view their recorded instructions at another time in order to complete the hiring task. In reality, there were no followers and no one completed the hiring task. This task was adapted from Hoyt et al. (2010) and appears in Appendix B.

Role Model Manipulation

The role models' behaviors were consistent with that of a prototypical leader (e.g., being caring, sensitive to needs of subordinate, devoted) such that the role models were described as being accomplished, determined and hard working. A prototypical vignette was chosen since Foti et al. (2012) found that a prototypical ideal leader profile was most common with 38% of their sample having a prototypical profile. Foti et al. (2012) identified four profiles for perceptions of ideal leaders and found these profiles were consistent with the leadership style literature. The profiles for perceptions of an ideal leader were: Prototypical, Laissez-Faire, Autocratic, and Anti-Prototypical. The prototypical profile was found to have high sensitivity, high intelligence, high dedication and low tyranny, all of which are characteristics of transformational leadership. Moreover, research has shown that transformational leadership is an important predictor of ratings of leader effectiveness (Piccolo et al., 2012; Judge & Bono, 2000).

While the two role models were described similarly in terms of having a prototypical leadership style, they had differing descriptions of the role model and the position she occupied within an organization. In order to manipulate the role model level, participants were presented

with a vignette of either a successful elite role model or a mid-level manager role model. For the elite vignette, the role model was Diane Sawyer, a high-profile journalist. For the mid-level vignette, the role model was Amanda Smith (a fictitious person), a reporter for a local news station. The behaviors consistent with a prototypical leader and differences in the elite and mid-level role models are further highlighted in Table 1. The vignettes used for both role models are provided in Appendix C. In order to reinforce the role model vignette manipulation, participants responded to reflect on the role model and respond to three open ended questions using specific examples from the vignettes. These questions are provided in Appendix D.

Measures

Leadership self-concept. Participants' leadership self-concept was measured using a 31 item version of Epitropaki and Martin's (2004) leader prototype scale (Appendix E). The 31 item scale was used to enable the combining to the study data with prior data to cluster participants and determine their leadership self-concept. Participants were asked to rate how descriptive the listed traits (e.g., sincere, dedicated, helpful) were of their own leadership style on a 7 point Likert scale ranging from 1 'not at all descriptive' to 7 'extremely descriptive'.

Reliability analyses of the initial sample revealed adequate reliability for each subscale used – sensitivity ($\alpha = 0.82$), intelligence ($\alpha = 0.86$), dedication ($\alpha = 0.83$), tyranny ($\alpha = 0.84$). Participants were identified as prototypical, autocratic, laissez-faire or anti-prototypical a posteriori, using cluster analysis. In determining leadership self-concept, the forgiving item on the sensitivity dimension and dominant item on the tyranny dimension were excluded from the cluster analysis since those items were not available in the Foti et al. (2012) dataset.

Measure of leader prototype. Using a measure adapted from Johnson et al. (2008), participants were asked to indicate the extent to which they found the traits presented to be true

of their ideal leader on a scale ranging from 1 'Never or almost never true' to 7 'Always or almost always true'. Participants were presented with six agentic (e.g., dedicated, intelligent) and six communal (e.g., caring, sensitive) traits adapted from Scott and Brown (2006).

Participants were provided with a brief behavioral description of each trait to ensure all participants had the same understanding of the trait. Cronbach's alpha for the agentic subscale was 0.58 and for the communal subscale was 0.84. Appendix F contains the measure used.

Task performance. Three trained coders rated participants on three performance criteria (Hoyt et al.'s *Study 3*, 2010; DeRue & Morgeson, 2005; Damen, van Knippenberg & van Knippenberg, 2008; Cherulnik, Donley, Wiewel, & Miller, 2001) that captured good task performance based on the leadership task. The three dimensions were: directive behaviors, supportive behaviors and enthusiastic behaviors. The directive and supportive dimensions contained 5 items each and the enthusiastic dimension contained 3 items. Appendix G contains the items (i.e., descriptions of behavior) contained in each dimension.

Three research assistants coded the video recordings on the three dimensions of task performance. Before coding the recordings for the leadership task, all coders attended a training session, during which the author introduced the coding scheme dimensions and discussed the relevant behaviors. Coders then generated possible behaviors for the dimensions to strengthen their understanding of the coding scheme. Generating relevant behaviors for each item in the coding dimensions demonstrated the coders' understanding of what the dimensions entailed. The author then facilitated a discussion of the behaviors generated. For each dimension, the item each behavior fit with was discussed. When a behavior fit with multiple items in a dimension, the author had the final say about categorization of the behaviors generated to ensure correct behaviors for each dimension. Following the training, all coders rated the same five video

recordings and discussed their ratings afterwards to reconcile any inconsistencies in perception. Appendix H contains the training protocol used.

Coders were then each assigned a third of total videos to code independently. Additionally, to prevent any coding biases, all coders were blind to the experimental condition of the participants and coders did not code any participants they were responsible for running through the experimental session. All items were coded dichotomously as yes/no (i.e., 1/0) for presence or absence of behaviors characterized by each item in the coding scheme.

The author also provided reliability ratings as a second rater on 20% of the videos (i.e., 20 participants). Percentage agreement was computed (see Table 2) to assess the agreement between the coders and the author for each item in each dimension. Items with percentage agreement of 90% or greater were retained, resulting in 4 items retained for the directive dimension, 3 items for the supportive dimension and 2 items for the enthusiastic dimension. Only the retained items were used in subsequent analyses.

Leadership self-efficacy. Leadership self-efficacy was assessed using an 11 item measure adapted from Ng, Ang and Chan (2008). Participants were asked to rate how confident they were in specific areas of leadership (e.g., planning ability, ability to communicate, creating team spirit) on a Likert type scale ranging from 1 'not at all confident' to 7 'extremely confident'. Cronbach's alpha for leadership self-efficacy was 0.84. This measure appears in Appendix I.

Future leadership behavior. Participants were told about an upcoming leadership opportunity for a student organization looking for board members. Participants were told about the various positions open (e.g., vice president, volunteer chair, etc.). Participant's likelihood of future volunteer behavior was assessed using a single item asking participants if they were

interested in volunteering for a leadership position (yes/no). This measure appears in Appendix J.

Manipulation Check

Participants' perceived similarity to the role models was assessed using 4 item measure. Participants were asked to rate the extent to which they felt similar to the role models they read about and the extent they felt they had lots in common with the role models they read about. Each item was rated on a 7-point Likert type scale. Cronbach's alpha reliability was 0.78. This measure appears in Appendix K.

Demographics Measure

Additionally, participants were asked a series of demographics questions including age and race. Participants responded to questions regarding course load, how busy their semester was, work experiences, volunteer experiences, and prior leadership positions. This measure appears in Appendix L.

Results

Descriptive Statistics, Reliability and Correlations

The participant sample size for each condition was: Match-Elite (Prototypical Self-Concept; $n=29$), Match-Mid-level (Prototypical Self-Concept; $n=24$), Non-Match-Elite (Laissez Faire Self-Concept; $n=20$) and Non-Match-Mid-level (Laissez Faire Self-Concept; $n=28$). Table 3 represents the descriptive statistics for the variables of interest in this study. Table 4 contains the correlations of dependent variables and covariates. Leadership self-efficacy was significantly correlated with future leadership behavior ($r = 0.31, p < 0.01$). Directive behaviors were significantly correlated with both supportive behaviors ($r = 0.37, p < 0.01$) and enthusiastic behaviors ($r = 0.21, p < 0.05$). Additionally, speech length was correlated with all task performance dimensions: directive behaviors ($r = 0.46, p < 0.01$), supportive behaviors ($r = 0.25, p < 0.05$), and enthusiastic behaviors ($r = 0.36, p < 0.01$), and was hence used as a covariate in subsequent analyses. Perceived similarity was correlated with leadership self-efficacy ($r = 0.64, p < 0.01$), future leadership behavior ($r = 0.24, p < 0.05$), as well as the agentic leader prototype ($r = 0.24, p < 0.01$). Agentic and communal leader prototype were both significantly correlated with leadership self-efficacy ($r = 0.35, p < 0.01$, and $r = 0.24, p < 0.01$, respectively). However, agentic and communal prototypes were not significantly correlated with each other ($r = 0.07, p > 0.05$). Other control variables (how busy their semester was and current leadership involvement) did not show significant correlations with variables of interest.

Reliability coefficients of the dependent variables studied are contained in the off diagonal of Table 4. All variables showed acceptable reliabilities except agentic leader prototype ($\alpha = 0.58$).

Issues with Reliability

Given the weak reliability coefficients of the agentic subscale of the leader prototype measure, as reported in table 4 ($\alpha = 0.58$), an exploratory factor analysis (EFA) using principal components as the method of extraction using a varimax rotation was conducted on the agentic subscale to look at the underlying factor structure. The EFA revealed a three-factor structure for the agentic subscale such that intelligent and charismatic, dedicated and determined, and aggressive and competitive loaded on a factor each respectively (See Table 5). Thus, since the resultant subscales had only two items each, they did not yield an increase in the internal consistency.

Additionally, an EFA was used on all 12 items of the communal and agentic subscales using principal components as the method of extraction using a varimax rotation. The number of factors to be extracted was set to 2. The rotated factor structure showed the items loading on their respective subscales (see Table 6) but the scree plot indicated that more factors could be extracted. To determine if a 2-factor structure was a good fit for the leader prototype scale and to obtain fit statistics, an EFA was run using maximum likelihood as the method of extraction. The goodness of fit test was significant indicating that a 2-factor structure was not the best fit for the leader prototype scale ($\chi^2(43) = 104.00, p < 0.01$).

Since attempts to improve reliability or test for adequate reliability in an EFA framework failed, a decision was made to use the original agentic scale. Thus, despite having poor reliability, the agentic subscale was used in order to test hypothesis 4.

Testing for Experimenter Differences

A one-way ANOVA was used to rule out the impact of experimenter differences on participants' responses. Results were non-significant for all dependent variables expect

enthusiastic behaviors ($F(4,96) = 2.86, p < 0.05$) tested using the retained task performance items. Additionally, there were no experimenter differences on perceived similarity as well ($F(4,96) = 0.69, p > 0.05$).

Manipulation Check

A two-way ANOVA was used to test the impact of the two similarity manipulations on perceived similarity and ensure that the manipulations worked as hypothesized. Results are summarized in Table 7. Analyses revealed the interaction between match with leadership self-concept and role model level was not significant ($F(1,97) = 0.07, p > 0.05$). Moreover, the analyses revealed that only one of the main effects was significant. Analyses revealed a significant impact of match with leadership self-concept on perceived similarity ($F(1,97) = 10.94, p < 0.01$, partial $\eta^2 = 0.10$) such that perceived similarity was higher in the match condition (prototypical self-concept; $M = 5.60, SD = 0.87$) compared to the non-match condition (lassiez faire self-concept; $M = 5.08, SD = 0.84$). The main effect of role model level on perceived similarity was non-significant ($F(1,97) = 3.92, p = 0.05$). Thus, the above analyses reveal that the two manipulations did not interact to bolster similarity. Despite role model level not impacting similarity, a decision was made to include it in subsequent analyses given the p-value of 0.05 approached significance.

Hypothesis Testing

Hypothesis 1 predicted that match with leadership self-concept and type of role model level would interact to impact leadership self-efficacy. In order to test this hypothesis, a 2x2 ANOVA was used to test the impact of match with leadership self-concept and role model level on leadership self-efficacy. Results revealed a non-significant interaction between the effects of leadership self-concept and role model level ($F(1,97) = 0.00, p > 0.05$). Although not

hypothesized, the two-way analysis of variance revealed a significant main effect of match with leadership self-concept on leadership self-efficacy ($F(1,97) = 12.55, p < 0.01$), such that leadership self-efficacy was significantly higher for the match group (prototypical self-concept; $M = 5.68$) than for the non-match group (laissez-faire self-concept; $M = 5.20$). Results of the ANOVA are summarized in Table 8. Thus, hypothesis 1 was not supported.

Hypothesis 2 predicted that match with leadership self-concept and type of role model level would interact to impact task performance. In order to test hypothesis 2, three two-way ANCOVAs were conducted to test the impact of match with leadership self-concept and role model level on directive, supportive and enthusiastic dimensions when controlling for speech length. All interactions and main effects were found to be non-significant. Results for all three analyses are summarized in Table 9. Thus, no support was found for hypothesis 2.

Hypothesis 3 predicted that match with leadership self-concept and type of role model level would interact to impact future leadership behavior. In order to test hypothesis 3, a logistic regression was used to test the impact of leadership self-concept and role model level on future leadership behavior. The logistic regression model was not significant, $\chi^2 = 2.89, p = 0.41$. Neither predictor variables, nor their interaction predicted future leadership behavior (see Table 10). Thus, no support was found for hypothesis 3.

Testing mediation. Hypothesis 4 predicted that leader prototypes would mediate the relationship between one's leadership self-concept and leadership self-efficacy, such that the agentic leader prototype would be activated when the role model matched one's leadership self-concept (i.e., participants with prototypical self-concept).

In order to test hypothesis 4, a series of regression analyses were conducted using the method suggested by Baron and Kenny (1986) to test mediation. Results of the regressions testing the hypothesis are summarized in Table 11.

Leadership self-concept was coded dichotomously (0/1) such that 1 indicated a match with self-concept (prototypical self-concept) and 0 indicated no match (laissez-faire self-concept). To test the mediating role of agentic leader prototype, participants' leadership self-efficacy was regressed on match with leadership self-concept in step 1 ($b = 0.48, p < 0.01$). Agentic leader prototype was regressed on match with leadership self-concept in step 2 ($b = 0.40, p < 0.01$). In step 3, leadership self-efficacy was regressed on agentic leader prototype ($b = 0.39, p < 0.01$). In step 4, leadership self-efficacy was regressed on both match with self-concept ($b = 0.36, p < 0.05$) and agentic leader prototype ($b = 0.31, p < 0.01$), thus suggesting partial mediation by agentic leader prototype. Moreover, the positive regression coefficient for agentic leader prototype indicated that as one moved from non-match to match, agentic scores increased such that they were higher in the match group. Thus, hypothesis 4 was supported.

Exploratory Analyses

In addition to the tests of study hypotheses, some exploratory analyses were conducted. The impact of perceived similarity on study outcomes was investigated with the manipulation check of perceived similarity being used as a predictor. Perceived similarity was found to be a significant predictor of leadership self-efficacy ($b = 0.52, t(99) = 8.19, p < 0.01$), such that it explained a significant proportion of variance in leadership self-efficacy ($r^2 = 0.40, F(1,99) = 67.03, p < 0.01$). Additionally, perceived similarity was a significant predictor of future leadership behavior ($\chi^2(1) = 6.11, p < 0.05$) such that as similarity increased, participants had

1.87 times higher odds of volunteering for a future leadership position. Perceived similarity did not predict task performance.

Discussion

Summary of Findings

The purpose of the study was to examine how role model similarity impacted women's leadership outcomes. Specifically, the author looked at the impact of similarity in terms of the interaction of match with one's leadership self-concept and role model level, such that they would interact to bolster similarity. While we did not find evidence for an interaction, we found evidence that similarity in terms of match with self-concept predicted women's leadership self-efficacy. However, no support was found for the impact of role model similarity on task performance or future leadership behaviors. Moreover, the evidence suggested that agentic leader prototype partially mediated the relationship between match with self-concept and leadership self-efficacy, such that agentic scores were higher as you moved from non-match to match with leadership self-concept.

Asgari et al. (2012) found support for the impact of role model similarity on leadership outcomes. In this study, we looked at different conceptualizations of similarity, namely match of the role model with one's leadership self-concept and type of role model level. We found that match with leadership self-concept led to the role models being perceived as more similar, such that match with self-concept was predictive of an increase leadership self-efficacy. This finding adds to the existing role model literature (Lockwood & Kunda, 1997, 1999; Rudman & Phelan, 2010) and also helps clarify the instances in which a role model might be effective. Thus, for a leader role model to be perceived as similar and influence an individual, it is possible that the role model needs to match the individual's self-perceptions of leadership.

Surprisingly, role model level did not seem to impact the perceived similarity of the role models, and did not have an impact on leadership self-efficacy or other leadership behaviors.

This is contrary to Hoyt and Simon's (2011) findings, which found that elite role models had a negative impact on women's self-perceptions and that participants identified more strongly with non-elite leaders.

While research has looked at the manipulation of factors that impact role model similarity (e.g., Asgari et al., 2012; Hoyt & Simon, 2011), as far as we know, no study has simultaneously manipulated multiple factors impacting role model similarity. This study adds to the current body of literature by simultaneously manipulating similarity using two different conceptualizations in the same experiment. Contrary to the predictions, the similarity manipulations did not interact to impact various leadership outcomes. While we expected the manipulations to have an additive effect and bolster similarity further, the results indicate that match with one's leadership self-concept caused role models to be perceived as similar.

Additionally, evidence was found for agentic leader prototype partially mediating the relationship between match with leadership self-concept and leadership self-efficacy. This adds to the existing work by Bray et al. (2014), which found that ideal leader prototype mediated the relation between self and leader judgments, and provides support for leader prototypes guiding a standard for our own behavior (Lord & Maher, 1991). In addition to judgments, ideal leader prototypes can also mediate the relation between the self and one's leadership outcomes, suggesting that we use the standards set forth by our leadership prototypes to evaluate ourselves.

Cooper and Richardson (1986) cautioned against unfair comparisons when manipulating two or more competing factors. If the strength of the manipulations is not equivalent, it is likely that the factor that is more strongly manipulated shows a stronger effect. The pilot data indicate that role model level manipulation had a moderate effect (Cohen's $d = 0.5$) for the extent to which individuals identified with the role model. Since the effect size for role model level

manipulation in the pilot data is relatively strong, it is likely that the manipulations had equivalent strength and that the comparisons were fair. Thus, the significant impact of match with self-concept obtained when the two manipulations were carried out together, could be indicative of the fact that match with leadership self-concept indeed has a stronger impact on perceived similarity compared to role model level. Moreover, the pattern of means for the manipulation check of perceived similarity indicated that perceived similarity was highest in the match mid-level group, followed by match elite, non-match mid-level and non-match elite. The pattern of means suggest that participants perceived the mid-level role model as more similar compared to the elite role model, regardless of whether the role model matched their leadership self-concept or not. While the interaction of match with self-concept and role model level on perceived similarity wasn't significant, the above means fit the pattern predicted by the hypothesized interaction. It is also possible that match with leadership self-concept forms a key component of perceived similarity, whose impact trumped that of role model level.

Alternatively, the reflection questions used to reinforce the role model similarity could have caused participants to focus only on the attributes of the role model instead of the attainability of the role model, thus leading to the match with self-concept aspect of similarity being manipulated more strongly. Future research will involve coding responses to the open-ended questions to determine whether participants focused solely on the attributes of the role models.

Additionally, exploratory analyses revealed that perceived similarity was a significant predictor of leadership self-efficacy and future leadership behavior. These results are in line with current role model similarity research (Asgari et al., 2012) but also lead us to question what causes role models to be perceived as similar and whether the fact that the role model is perceived as similar is more important than the factors that lead to the perception of similarity.

Strengths and Limitations

A strength of this study is that it integrates diverse fields of literature – role models, gender and leadership, leader prototypes and self-perceptions. Moreover, similarity was manipulated using two different conceptualizations of similarity. Additionally, this study looked at task performance in terms of actual leadership behavior by using the leadership task. While correlations between perceptions of behavior and actual performance are low to moderate (Dunning, Heath, & Suls, 2004), many studies continue to look at perceptions of performance as an outcome. The methodology allowed us to obtain richer descriptions of behavior, and look at actual performance as an outcome.

As with any research, there were some limitations with the current study. First, the small sample size resulted in a lack of statistical power, which could explain the failure to reach significance in some of the results. Moreover, the participant sample was limited to undergraduate students at a large public southeastern university, which limits the generalizability of these results. Additionally, since these participants did not have much leadership experience or exposure to a leader, it is possible they did not relate to the role models.

A methodological constraint of this study was the lack of a control group or a baseline measure for self-efficacy, which limits the conclusions that can be drawn from these results. The lack of control group limits the causal inferences that can be made from the results and is a threat to internal validity. Not having a control group makes it difficult to rule out other alternative explanations for the increase in leadership self-efficacy and determine that it was indeed role model similarity that led to an increase in leadership self-efficacy. Conversely, since the authors did not collect baseline self-efficacy data, it is possible that participants having a prototypical self-concept had higher leadership self-efficacy to begin with.

Additionally, the task performance subscales (i.e., directive, supportive and enthusiastic subscales) were coded using a dichotomous (yes/no) coding scheme indicating the presence or absence of behaviors instead of a Likert-type measure. This led to the variability in the data not being captured since the effectiveness of the behavior performed was not captured. Lastly, while there was sufficient percentage agreement for the coding of task performance subscales, percentage agreement does not take into account agreement due to random chance.

Implications and Future Directions

This study has important implications that should not be overlooked. Match with one's leadership self-concept appears to play an important role in whether a role model is perceived as similar or not, and this can have important implications for role model effectiveness and leadership research.

Hoyt, Burnette and Innella (2012) looked at the influence of implicit theories (in terms of entity/incremental theories) on the effectiveness of role models. They found that individuals' with incremental theories (i.e., belief that leaders are made) were more likely to be influenced by a role model compared to individuals' with entity theories (i.e., belief that leaders are born), such that identification with the role model mediated the relationship between implicit theories and confidence. Thus, future research should measure one's implicit theory (i.e., incremental or entity) and investigate how having an incremental or entity theory interacts with match with one's leadership self-concept. It is possible that a role model that matches one's leadership self-concept would be influential regardless of whether an individual has an incremental or entity orientation. Alternatively, individuals having an incremental self-view could have higher leadership self-efficacy to begin with.

Karelaia and Guillen (2014) found that having a positive gender identity (i.e., a favorable evaluation of women) reduced the conflict between gender roles and leader roles, resulting in an increased motivation to lead in women. Thus, female role models that match with one's leadership self-concept can aid in fostering more positive evaluations of women and reduce the perceived role incongruity, resulting in positive leadership outcomes for women. Additionally, the activation of agentic leader prototypes when the role model matches one's leadership self-concept can further reduce gender-leader role incongruity.

In addition, the study also has practical implications in regards to women's leadership development. Determining what makes a role model be perceived as similar could help match role models in a manner that would make them effective and lead to more positive leadership outcomes. This can aid in development of mentorship programs where mentors are matched on the mentee's leadership self-perceptions and can have implications for development of power motivation in women (Schuh et al., 2013), as well as reducing gender inequality in leadership positions.

Future research should focus on a more generalizable sample of women working in organizations. Since the sample in this study included mainly first and second year undergraduate females, it is possible that self-perceptions of leadership for women working in organizations may differ. In addition, they could be more sensitive to the role model being elite as compared to a more attainable level. Additionally, future research should also look at whether the mediating prototypes activate differentially for people with different self-perceptions (i.e., prototypical vs. autocratic).

Conclusion

In conclusion, the current research demonstrates that an important component of perceived role model similarity is match with one's leadership self-perceptions. Moreover, in addition to leader prototypes mediating the relationship between one's self-perceptions and judgments of others (Bray et al., 2014); they mediate the relationship between one's self-perceptions and judgments about oneself as well. Providing women with role models that match their leadership self-perceptions is important for the role models to be perceived as similar, and these similar role models have important implications for women's leadership development. Thus, we advance the current research in the role models and leadership domains by identifying what causes role models be perceived as similar, as well as finding ways to reduce gender-leader role incongruity, and increase positive leadership outcomes for women. The findings suggest that a role model being perceived as similar may help overcome the conflict between gender and leader roles and result in women having an increased confidence in their leadership abilities.

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Appendix A

Information Form

Please read the following information. VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY Informed Consent for Participants in Research Projects Involving Human Subjects. Investigators(s): Dr. Roseanne Foti, Yashna Shah

I. Purpose of this Research/Project: to explore and understand the impact of female leader role models on women's leadership self efficacy and future leadership behaviors.

II: You will be asked to complete a few brief questionnaires and participate in a leadership task. Your participation in the leadership task will be video recorded. You may choose not to answer any question and may withdraw from the study at any point.

III. Risks - The only potential risk to you in this study would be discomfort. Should you feel uncomfortable at any time during the study, you can choose to skip questions or can stop the study at any time.

IV. Benefits - Participation in this study may help you recognize your ideal leader role models. Participants may request a summary of the results of this study by contacting the researcher, Yashna J. Shah at yshah@vt.edu.

V. Extent of Anonymity and Confidentiality - The researchers will not release the results of the study to anyone other than individuals working on the project without written consent. The investigators listed at the top will be given access to the survey results in order to transcribe the data. All information given during this study will remain anonymous. The survey will provide information from a wide array of students from numerous organizations to ensure a large number of participants; therefore, individuals will not be identifiable from any information submitted in the study.

VI. Compensation Students – Participants will earn one extra credit point on SONA.

VII. Freedom to Withdraw - Your participation in this study is voluntary; you may discontinue your participation at any time without penalty. If for any reason you decide that you would like to discontinue your participation, simply quit the survey program.

VIII. After reading this document, if you agree to the information stated, agree below and continue with the survey document.

IX. Who to Contact for Research Related Questions: For questions about the research itself, or to report any adverse effects during or following participation, contact the researcher, Yashna Shah, at yshah@vt.edu or principle investigator, Dr. Roseanne Foti at rfoti@vt.edu. You may also contact the Chair of the Psychology Department's Human Subjects Committee, Dr. Harrison, at dwh@vt.edu or the Chair of the University's Institutional Review Board, Dr. Moore, at moored@vt.edu.

X. Only students 18 years of age or older may participate in this study.

If you agree to the consent statement above, please indicate this by agreeing below.

Name: _____

Date: _____

Signature: _____

Appendix B

Leadership Task

Organization background

Amidex is a multinational organization that manufactures and distributes pharmaceuticals. It employs about 50,000 people worldwide – its top managers are mostly White males. Amidex has announced openings for college graduates in its management training program. It is seeking high potential graduates to be trained for placement in management positions. Any major is appropriate because the training program will be tailored to the interests, aptitude, and work experience of each trainee.

Historically, the Amidex training program has attracted and recruited applicants who have excellent academic achievement records. However, in emphasizing academic accomplishments, the organization has rejected applicants who are not academic stars but who have demonstrated leadership in other areas. The organization has now decided that they wish to retain a more diverse workforce by recruiting individuals who have demonstrated competency across a wide range of areas.

There has been some conflict within the organization about this issue. Some detractors see it as an opportunity to increase the number of minorities in the organization, regardless of how competent they are for the positions. Further, Amidex is in a conservative business. Detractors within the organization believe Amidex could lose their clients if they adopt this new approach to recruitment. However, supporters of the new approach to recruitment, emphasize the benefits of recruiting people from diverse backgrounds. Organizations that value diversity are more innovative than their conservative competitors. Amidex is trailing behind their competitors and some senior executives believe this is due to the organization's reluctance to move with the

times. Further, the demographic composition of the American Labor force is changing as the proportions of both women and members of minority groups have steadily increased in recent years. Some senior executives believe that Amidex employees will not be effective at their jobs unless they acquire skills in dealing with culturally different co-workers whom they work with, work for, and supervise.

To achieve the new objective of the organization, Amidex have recruited a number of undergraduates to help identify candidates for their management training program. Other successful organizations have recruited undergraduates to help with recruiting efforts. Students acting as undergraduate recruiters appear particularly adept at identifying applicants with diverse interests, values and personalities.

Information about your role

You joined Amidex 5 years ago and your promotion to Recruitment Manager is a recent event. You joined the organization through its management training program and feel proud that you are in charge of a program that gave you such valuable training and experience. In fact, you believe that without that training you would not have gained such an early promotion. All the usual personnel services such as recruitment, hiring, promotions, training, and contract negotiations are handled through your office. You are in charge of 15 subordinates, three of whom are undergraduate recruiters recruited through the management training program.

Task instructions

The aim of this task is for you to deliver instructions to two of your subordinates on how to complete a selection/resume-screening task. Your two subordinates, who are a part of another study, will view your instructions on their computer in another experimental room.

Your subordinates (two of the undergraduate recruiters) have been given a set of 12 resumes and evaluations sheets and need instructions on how to screen the resumes. In addition, you want the recruiters to write a short letter to their top applicant persuading them to join the organization. The subordinates will have 20 minutes to complete the task. The resumes are from undergraduate students from other universities. As the Recruitment Manager, you are required to give clear instructions to the undergraduate recruiters on how to perform the task.

Although the applicant should have a BA/BS by May 2014, the primary concern should be to hire employees whose background suggests they will be effective managers. The undergraduate recruiters need to review each resume to judge whether the applicant meets the requirements. On the evaluation sheet is a list of dimensions. The undergraduate recruiters need to evaluate each applicant on the set of dimensions and provide comments on how the applicant fits or does not fit the dimension. The evaluation sheet contains ratings (on a 1 –7 scale) and space for the recruiters to record evidence of how each applicant has demonstrated or failed to demonstrate achievement in this area. Recruiters also need to provide a general evaluation of the candidate. The dimensions stated on the evaluation sheet include:

- Willingness to work hard (going beyond the minimum required)
- Innovation (looks for new challenges)
- Cooperation (working well with others)
- Leadership potential (influencing others effectively)
- Versatility (able to adapt to different situations)

Most candidates will have little work experience, so the recruiters need to look for evidence in the college and outside activities of the applicant. The applicants are evaluated on the list of dimensions. Recruiters also select the top two people they feel are most eligible for the management training program. Recruiters should only choose the top two once they have rated

all the applicants. The training program is extremely expensive and care needs to be taken in selecting the right applicants for the positions. Then they write a 1-page letter to the top candidate persuading them to join the organization.

Now prepare your talk for the undergraduate recruiters. Imagine that you have entered the room where the undergraduate recruiters (your subordinates) are seated. You need to give actual instructions and guidance to your subordinates, although you are unable to see them. You have around 25 minutes to prepare your talk. Please let the researcher know when you are ready.

Appendix C
Elite Role Model

Please read the following information about this female leader role model carefully. You will be asked some follow up questions.

Diane Sawyer earned a B.A. in English from Wellesley College. Soon after, Sawyer moved to Washington D.C. and found a job as assistant to the then White House deputy press secretary and was eventually promoted to staff assistant for the then U.S. President. In 1984, she became the first female correspondent on CBS News' 60 Minutes. During Sawyer's five years with 60 Minutes, the program almost always ranked among the top five most-watched in the country. Her subordinates describe her as devoted, hardworking and willing to work long hours to complete the job at hand. In addition, her subordinates report many stories of her caring and being sensitive to the needs of others. Sawyer's subordinates also recount experiences where they have experienced her democratic leadership. They mention her as someone who encourages her subordinates to provide feedback and suggestions and involves her subordinates while making decisions.

Today, Sawyer is the anchor of ABC's flagship broadcast World News and the network's principal anchor for breaking news coverage, election coverage, and special events. Sawyer has been described as energetic, confident and extremely intelligent. In 2009, Sawyer was awarded the prestigious Peabody award for best newscast.

Mid Level Role Model

Please read the following information about this female leader role model carefully. You will be asked some follow up questions.

Amanda Smith graduated from Penn State University in 2011, with a double degree in Journalism and Mass Communication. She earned distinction with her involvement in Penn State's media outlets, which culminated in her being selected for the position of head producer at Penn State's Channel 8 campus news station. Her subordinates describe her as devoted, hardworking and willing to work long hours to complete the job at hand. In addition, her subordinates report many stories of her caring and being sensitive to the needs of others. Smith's subordinates also recount experiences where they have experienced her democratic leadership. They mention her as someone who encourages her subordinates to provide feedback and suggestions and involves her subordinates while making decisions.

Upon graduation, Smith was given an internship at a local New Jersey television station. From this position, she gained entry-level administrative work. Smith has been described as energetic, confident and extremely intelligent. Her determination paid off, and after 3 years, she was promoted to on-site reporter for the news division. In 2013, Smith received an Outstanding Staff Performance award for her news division.

Appendix D
Role Model Reflection Questions

Please take around 10 minutes to reflect on the role model you read about and use the space provided to answer the following questions. Please be as specific as possible:

- 1. Do you identify with the life and accomplishments of the role model provided?**

Please provide two specific examples of how you relate or do not relate to the role model.

-

-

- 2. Reflect on your current or most recent leadership role (e.g, group project leader, leadership position in a student organization or club, supervisor at work). Does the role model provided fit with how you see yourself as a leader? Provide two specific examples of fit or non-fit.**

-

-

- 3. Do you think that someday in the future, you might reach a similar level of success in your own field? Why or why not?**

Appendix E
Measure of Leadership Self-Concept

Please rate how descriptive each of the 31 traits presented below are for your own leadership style. Please use the scale presented below.

	1-----2-----3-----4-----5-----6-----7	
	Not at all descriptive	Extremely descriptive
1. Understanding	1----2----3----4----5----6----7	
2. Hardworking	1----2----3----4----5----6----7	
3. Warm	1----2----3----4----5----6----7	
4. Clever	1----2----3----4----5----6----7	
5. Masculine	1----2----3----4----5----6----7	
6. Domineering	1----2----3----4----5----6----7	
7. Charismatic	1----2----3----4----5----6----7	
8. Motivated	1----2----3----4----5----6----7	
9. Intelligent	1----2----3----4----5----6----7	
10. Pushy	1----2----3----4----5----6----7	
11. Loud	1----2----3----4----5----6----7	
12. Sincere	1----2----3----4----5----6----7	
13. Energetic	1----2----3----4----5----6----7	
14. Dedicated	1----2----3----4----5----6----7	
15. Manipulative	1----2----3----4----5----6----7	
16. Male	1----2----3----4----5----6----7	
17. Compassionate	1----2----3----4----5----6----7	
18. Strong	1----2----3----4----5----6----7	
19. Dynamic	1----2----3----4----5----6----7	

- | | |
|-------------------|---------------------------------------|
| 20. Helpful | 1-----2-----3-----4-----5-----6-----7 |
| 21. Dominant | 1-----2-----3-----4-----5-----6-----7 |
| 22. Wise | 1-----2-----3-----4-----5-----6-----7 |
| 23. Educated | 1-----2-----3-----4-----5-----6-----7 |
| 24. Sensitive | 1-----2-----3-----4-----5-----6-----7 |
| 25. Knowledgeable | 1-----2-----3-----4-----5-----6-----7 |
| 26. Conceited | 1-----2-----3-----4-----5-----6-----7 |
| 27. Bold | 1-----2-----3-----4-----5-----6-----7 |
| 28. Sympathetic | 1-----2-----3-----4-----5-----6-----7 |
| 29. Intellectual | 1-----2-----3-----4-----5-----6-----7 |
| 30. Selfish | 1-----2-----3-----4-----5-----6-----7 |
| 31. Forgiving | 1-----2-----3-----4-----5-----6-----7 |

Appendix F
Measure of Leader Prototype

Please read the descriptions of the traits presented below. You will be asked a series of questions you will have to answer keeping in mind the descriptions you read.

Dedicated (Agentic)

Works late all week in order to finish the project
Works on projects outside of working hours

Caring (Communal)

Always shows concern for the well being of the team
Goes beyond self-interest for the good of the employees

Charismatic (Agentic)

Talks in a manner that motivates employees
Talks enthusiastically to the employees about what needs to be accomplished

Sensitive (Communal)

Perceives when employees are upset
Is responsive to the feelings of employees at work

Intelligent (Agentic)

Displays extraordinary talent and competence in every project
Consistently contributes good ideas during group discussions

Determined (Agentic)

Works on a project without giving up, even when complications arise
Works relentlessly to solve difficult problems

Aggressive (Agentic)

Argues until co-workers agree with the ideas
Fights to get the work group necessary resources

Honest (Communal)

Gives credit to employees for their good ideas
Is always upfront with subordinates

Understanding (Communal)

Encourages employees to approach if a problem arises
Listens when subordinates are having a personal conflict

Compassionate (Communal)

Extends employee deadlines when important family commitments arise
In a personal crisis gives times off to employees

Competitive (Agentic)

Emphasizes that the team needs to be number one
Pushes for own ideas to be heard over other employees

Sympathetic (Communal)

Is accommodating when family emergencies arise
Expresses concern with subordinates that are going through difficult times

Use the scale provided to answer the following questions

1. To what extent is **dedicated** true of your ideal leader

1-----2-----3-----4-----5-----6-----7

Never or almost never true

Always or almost always true

2. To what extent is **caring** true of your ideal leader

1-----2-----3-----4-----5-----6-----7

Never or almost never true

Always or almost always true

3. To what extent is **charismatic** true of your ideal leader

1-----2-----3-----4-----5-----6-----7

Never or almost never true

Always or almost always true

4. To what extent is **sensitive** true of your ideal leader

1-----2-----3-----4-----5-----6-----7

Never or almost never true

Always or almost always true

5. To what extent is **intelligent** true of your ideal leader

1-----2-----3-----4-----5-----6-----7

Never or almost never true

Always or almost always true

6. To what extent is **determined** true of your ideal leader

1-----2-----3-----4-----5-----6-----7

Never or almost never true

Always or almost always true

7. To what extent is **aggressive** true of your ideal leader

1-----2-----3-----4-----5-----6-----7

Never or almost never true

Always or almost always true

8. To what extent is **honest** true of your ideal leader

1-----2-----3-----4-----5-----6-----7

Never or almost never true

Always or almost always true

9. To what extent is **understanding** true of your ideal leader

1-----2-----3-----4-----5-----6-----7

Never or almost never true

Always or almost always true

10. To what extent is **compassionate** true of your ideal leader

1-----2-----3-----4-----5-----6-----7

Never or almost never true

Always or almost always true

11. To what extent is **competitive** true of your ideal leader

1-----2-----3-----4-----5-----6-----7

Never or almost never true

Always or almost always true

12. To what extent is **sympathetic** true of your ideal leader

1-----2-----3-----4-----5-----6-----7

Never or almost never true

Always or almost always true

Appendix G

Leadership Task Coding Scheme

Participant ID Number _____

Research Assistant Initials _____

Speech Length: _____

Directive Behaviors

- _____ 1. The leader let subordinates know what is expected of them
(*e.g., described the task, explains the role of the subordinate*)
- _____ 2. The leader informed subordinates of the steps needed to complete the task
(*e.g., rate on a 7 point scale, dimensions subordinates should rate on*)
- _____ 3. The leader came up with specific examples and ideas for completing the task*
* *that are not mentioned in the task document*
(*e.g., examples of experiences to look for, how to write a persuasive letter*)
- _____ 4. The leader gave explanations of what is expected from the subordinates while
completing the task
(*e.g., things subordinates needed to keep in mind while rating, only have 20
minutes to complete task so work fast, look for evidence to back ratings*)
- _____ 5. The leader let subordinates know that she expected them to perform to their
highest level
(*e.g., clarifying standards of performance, “do your best”, having clear
expectations for subordinates*)

Supportive Behaviors

- _____ 1. The leader said things that make you think it would be pleasant to be a part of
the group
(*e.g., a greeting, welcomes participant, inclusive language “we”, “us”*)
- _____ 2. The leader behaved in a manner that was thoughtful and considerate of the
subordinates
(*e.g., looking out for welfare of team members, “I know you do not have much
time*)
- _____ 3. The leader expressed encouragement for the subordinate in their task
(*e.g., the leader is encouraging, expresses belief in subordinates’ abilities, “trust
your gut”, “I believe in you”*)

_____ 4. The leader left some decisions up to the subordinate
(e.g., *look for things you think make the person stand out, will the person work well with us, pick the person you think is best*)

_____ 5. The leader offered guidance and support to the subordinate
(e.g., *an offer to help, offer to answer questions*)

Enthusiastic Behaviors

_____ 1. The leader was engaged and enthusiastic while talking
(e.g., *modulated tone of voice, was not monotone*)

_____ 2. The leader maintained eye contact while talking

_____ 3. The leader had an expressive body language
(e.g., *smiling, body language*)

Appendix H

Protocol for Coding Videos

Coders watched the recorded leadership tasks and used the following coding protocol. Each coder coded around 30 videos. Speech lengths ranged from around 1 minute to 8 minutes. Coders completed the coding sheet for each participant.

To prevent any coding biases, coders did not code the participants they ran. All coders were be trained prior to coding videos.

The training comprised of three parts. In the first part, the researcher introduced the coding scheme and what the categories involved in terms of behavior. Coders were asked to generate behaviors for categories to ensure they understood the coding scheme. In case of disagreement, coders were asked to explain the reasoning behind their categorization. In case of disagreement in categorization of behaviors, the researcher had the final say about categorization of that behavior.

The next part involved watching and discussing a good video, a bad video and an okay video and coding them as a group.

To conclude training, each coder watched 2 tapes individually. After the 1st tape was coded individually, any discrepancies between coders were discussed until coders reached complete agreement. This was done with the second tape as well. Additional tapes were coded as needed to ensure coders were comfortable with coding. Once coders were comfortable with the coding, they coded their assigned videos.

After coding was complete, the researcher re-coded 20% of the videos to check for reliability.

Appendix I

Measure of Leadership Self-Efficacy

Please use the scale below and rate how confident you are in the following aspects of leadership:

	1-----2-----3-----4-----5-----6-----7
	Not at all confident Extremely confident
1. Planning ability	1----2----3----4----5----6----7
2. Setting direction	1----2----3----4----5----6----7
3. Delegating and assigning tasks	1----2----3----4----5----6----7
4. Coordinating tasks	1----2----3----4----5----6----7
5. Ability to communicate	1----2----3----4----5----6----7
6. Leading by example	1----2----3----4----5----6----7
7. Ability to motivate others	1----2----3----4----5----6----7
8. Creating team spirit	1----2----3----4----5----6----7
9. Using rewards and punishments	1----2----3----4----5----6----7
10. Confidence to lead a team	1----2----3----4----5----6----7
11. Overall leadership effectiveness	1----2----3----4----5----6----7

Appendix J
Measure of Future Leadership Behavior

Before we end, we would like to tell you about a few leadership opportunities that have come up. There is a new student organization, Lead VT that is looking for volunteers for some leadership positions they have for a few events they are planning. The leadership positions available include but are not limited to Vice President of Outreach, Volunteer Chair, PR Chair, Event Chair, etc.

Would you like to volunteer for a leadership position? If so, we can pass on your email address to the organization.

Please circle **one** option.

Yes

No

If you chose yes, please answer the following question.

Which leadership position are you most interested in? (Circle **one**)

Vice President of Outreach

Volunteer Chair

PR Chair

Event Chair

Other

Appendix K
Manipulation Check Questions

Please answer the following questions using the scale provided. Please indicate your answer by circling the appropriate number on the scale.

1. To what extent do you identify with the life and accomplishments of the individual described

1-----2-----3-----4-----5-----6-----7

I don't identify with her at all I identify with her very much

2. To what degree did you feel you had a lot in common with the individual described

1-----2-----3-----4-----5-----6-----7

Not a lot in common A lot in common

3. The description of the individual presented is how I see myself as a leader

1-----2-----3-----4-----5-----6-----7

Strongly Disagree Strongly Agree

4. The individual presented is a good role model for a leader

1-----2-----3-----4-----5-----6-----7

Strongly Disagree Strongly Agree

Table 1

Similarities and Differences Between the Vignettes

Transformational Characteristics and Behaviors appearing in both vignettes	
<p>Her subordinates describe her as devoted, hardworking and willing to work long hours to complete the job at hand.</p> <p>In addition, her subordinates report many stories of her caring and being sensitive to the needs of others.</p> <p>They mention her as someone who encourages her subordinates to provide feedback and suggestions and involves her subordinates while making decisions.</p> <p>Smith/Sawyer has been described as energetic, confident and extremely intelligent</p>	
Differences in vignettes bolstering the elite and mid-level manipulation	
Mid-level Role Model	Elite Role Model
<ul style="list-style-type: none"> selected for the position of head producer at Penn State's Channel 8 campus news station Upon graduation, Smith was given an internship at a local New Jersey television station. From this position, she gained entry-level administrative work after 3 years, she was promoted to on-site reporter for the news division. received an Outstanding Staff Performance award for her news division. 	<ul style="list-style-type: none"> assistant to the then White House deputy press secretary and was eventually promoted to staff assistant for the then U.S. President the first female correspondent on CBS News' 60 Minutes Today, Sawyer is the anchor of ABC's flagship broadcast World News and the network's principal anchor for breaking news coverage, election coverage, and special events Sawyer was awarded the prestigious Peabody award for best newscast.

Table 2

Percentage Agreement for Task Performance Items

Dimension	Item	Percentage Agreement (%)
Directive Behaviors	The leader let subordinates know what is expected of them	75
	The leader informed subordinates of the steps needed to complete the task	90
	The leader came up with specific examples and ideas for completing the task	95
	The leader gave explanations of what is expected from the subordinates while completing the task	90
	The leader let subordinates know that she expected them to perform to their highest level	90
Supportive Behaviors	The leader said things that make you think it would be pleasant to be a part of the group	80
	The leader behaved in a manner that was thoughtful and considerate of the subordinates	95
	The leader expressed encouragement for the subordinate in their task	90
	The leader left some decisions up to the subordinate	65
	The leader offered guidance and support to the subordinate	95
Enthusiastic Behaviors		80
	The leader was engaged and enthusiastic while talking	90
	The leader maintained eye contact while talking	90
	The leader had an expressive body language	

Table 3

Descriptive Statistics for Dependent Variables and Manipulation Check Within Condition

Variable	Match Condition (Prototypical Self-Concept)				Non-Match Condition (Laissez Faire Self-Concept)			
	Elite Role Model		Mid-Level Role Model		Elite Role Model		Mid-Level Role Model	
	M	SD	M	SD	M	SD	M	SD
Leadership Self-Efficacy	5.69	0.55	5.68	0.60	5.25	0.52	5.18	0.97
Task Performance								
Directive Behaviors	2.41	0.83	2.54	0.61	2.63	0.90	2.43	0.63
Supportive Behaviors	0.38	0.62	0.42	0.72	0.47	0.70	0.39	0.69
Enthusiastic Behaviors	1.03	0.68	1.21	0.78	1.16	0.83	1.11	0.57
Future Leadership Behavior	0.55	0.51	0.42	0.50	0.35	0.49	0.36	0.49
Leader Prototype								
Agentic Leader Prototype	5.49	0.68	5.53	0.52	5.12	0.68	5.10	0.64
Communal Leader Prototype	6.32	0.59	6.15	0.68	5.61	0.83	5.76	0.74
Perceived Similarity	5.43	0.89	5.81	0.82	4.91	0.64	5.20	0.95
Covariates								
Speech Length	111.86	71.91	116.83	75.11	152.61	109.12	106.86	42.00
Semester Busyness	5.18	1.39	5.74	0.86	5.03	1.18	5.14	1.27
Current Leadership Involvement	0.38	0.50	0.26	0.45	0.41	0.51	0.19	0.40

Note. Match-Elite: n=29; Match-Mid: n=24; Non-Match-Elite: n=20; Non-Match-Mid: n=28

Table 4

Means, Standard Deviations, Inter-correlations and Reliability Coefficients for Dependent and Covariate Variables Collapsed over all Conditions

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. Leadership Self-Efficacy	5.46	0.73	(0.84)										
2. Directive Behaviors	2.49	0.77	0.11	~									
3. Supportive Behaviors	0.41	0.67	0.16	0.37**	~								
4. Enthusiastic Behaviors	1.12	0.70	-0.08	0.21*	0.13	~							
5. Future Leadership Behavior	0.43	0.50	0.32**	0.09	-0.01	0.06	~						
6. Agentic Leader Prototype	5.32	0.66	0.35**	0.04	-0.06	-0.10	0.09	(0.58)					
7. Communal Leader Prototype	5.98	0.75	0.24**	0.04	0.07	-0.03	0.12	0.07	(0.84)				
8. Perceived Similarity	5.36	0.89	0.64**	0.11	0.13	0.14	0.24*	0.24**	0.19	(0.78)			
9. Speech Length	119.06	74.95	0.07	0.46**	0.25*	0.36**	0.01	-0.09	-0.14	0.05	~		
10. Semester Busyness	5.27	1.22	0.19	-0.01	0.21*	-0.09	-0.15	-0.08	-0.04	0.10	0.11	~	
11. Current Leadership Involvement	0.31	0.46	0.08	-0.07	0.10	-0.26*	0.02	-0.14	-0.15	-0.02	0.05	0.31**	~

Notes. Reliability coefficients are in parentheses on the main diagonal. * $p < .05$, ** $p < .01$.

Correlations for Directive, Supportive and Enthusiastic Behaviors only include items having percentage agreement of 90% or higher

Table 5

Reliability, Factors and Factor Loadings for Exploratory Factor Analyses on Agentic Leader Prototype Subscale

Agentic Leader Prototype			
Items	Factor 1	Factor 2	Factor 3
<u>Subscale 1 (0.65)</u>			
Determined	0.85		
Dedicated	0.85		
<u>Subscale 2 (0.61)</u>			
Aggressive		0.85	
Competitive		0.84	
<u>Subscale 3 (0.58)</u>			
Charismatic			0.86
Intelligent			0.78

Note. Reliabilities of the subscales tested based on EFA results are in parentheses. Factor loading coefficients below 0.3 were suppressed.

Table 6
Factors and Factor Loadings for Exploratory Factor Analyses on Measure of Leader Prototype (both agentic and communal subscales)

Items	Measure of Leader Prototype	
	Factor 1	Factor 2
<u>Agentic Items</u>		
Determined		0.63
Dedicated		0.57
Aggressive		0.45
Competitive		0.57
Charismatic		0.51
Intelligent		0.69
<u>Communal Items</u>		
Sensitive	0.84	
Caring	0.74	
Honest	0.50	
Understanding	0.83	
Compassionate	0.74	
Sympathetic	0.85	

Note. Factor loading coefficients below 0.3 were suppressed.

Table 7

Differences in Perceived Similarity by Match with Leadership Self-Concept and Role Model Level

Source	SS	df	MS	F	p	partial η^2
Match with Leadership Self-Concept	7.83	1	7.83	10.94	<0.01	0.10
Role Model Level	2.81	1	2.81	3.924	0.05	0.04
Match x Role Model Level	0.05	1	0.05	0.07	0.80	<0.01
Error	69.43	97	0.72			

Table 8

Results of the 2 way ANOVA looking at the impact of match with Leadership Self-Concept and role model level on Leadership Self-Efficacy

Source	df	F	p	partial η^2
Match with Leadership Self-Concept	1	12.55	<0.01	.12
Role Model Level	1	0.01	0.94	<0.01
Match with Leadership Self-Concept x Role Model Level	1	<0.01	0.10	<0.01
Error	97			

Table 9

Results of the 2 way ANCOVAs looking at the impact of match with Leadership Self-Concept (LSC) and role model level on Task Performance

Dependent Variable	Source	df	F	p	partial η^2
Directive Behaviors					
	Speech Length	1	23.69	<0.01	0.20
	Match with LSC	1	0.04	0.851	0.00
	Role Model Level	1	0.01	0.937	0.00
	Match with LSC x Role Model Level	1	0.43	0.512	0.01
	Error	94			
Supportive Behaviors					
	Speech Length	1	5.88	0.017	0.06
	Match with LSC	1	0.01	0.917	0.00
	Role Model Level	1	0.01	0.940	0.00
	Match with LSC x Role Model Level	1	0.01	0.908	0.00
	Error	94			
Enthusiastic Behaviors					
	Speech Length	1	14.20	<0.01	0.13
	Match with LSC	1	0.08	0.783	0.00
	Role Model Level	1	0.86	0.355	0.01
	Match with LSC x Role Model Level	1	0.04	0.836	0.00
	Error	94			

Table 10

Results of the Logistic Regression looking at the impact of Match with LSC and Role Model Level on Future Leadership Behavior

	B	SE	Wald	df	p	Odds Ratio
Match with Leadership Self-concept	.25	.57	.19	1	.660	1.29
Role Model Level	-.03	.61	.00	1	.959	.97
Match with Leadership Self-concept x Role Model Level	.58	.83	.48	1	.487	1.78
Constant	-.59	.39	2.22	1	.136	.56

Table 11

Results of Regression Analyses of Leadership Self-Efficacy and Agentic Leader Prototype on Match with Leadership Self-Concept

Dependent Variables				
	Agentic Leader Prototype	Leadership Self- efficacy	F	R ²
Step 1				
Match with Leadership self- concept		0.48**	12.09**	0.11
Step 2				
Match with Leadership self- concept	0.40**		10.04**	0.09
Step 3				
Agentic Leader Prototype		0.39**	13.83**	0.12
Step 4				
Match with leader self- concept		0.36*	10.59**	0.19
Agentic Leader Prototype		0.31**		