It's All About Me: The Role of the Self in Predicting Leadership Perceptions

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(ABSTRACT)

The present study examined the role of one's own self-perceptions of leadership in predicting both leadership prototypes and leadership perceptions of others. Additionally, this study explored gender differences in leadership prototypes and perceptions of leadership. Participants completed a measure of their own self-perceptions of their leadership traits (i.e., sensitivity, intelligence, dedication, and dynamism) and an instrument that assessed their leadership prototypes (i.e., sensitivity, intelligence, dedication, and dynamism). Next, participants were presented with a 22 minute tape of four actors (2 male, 2 female) portraying mutual fund mangers in a simulated work setting. Participants then rated one male (Bob) and one female (Sue) actor on the specific leadership characteristics (i.e., sensitivity, intelligence, dedication, and dynamism) they exhibited on the tape as well as an overall assessment of leadership emergence and effectiveness. The results demonstrated that leadership prototypes mediated the relationship between self-perceptions of leadership abilities and ratings of leadership characteristics for Bob and Sue. It was also found that the match between perceptions of Bob and Sue and an individual's leadership prototype predicted overall ratings of leadership emergence and leadership effectiveness. Finally, the results from the present study suggested that men and women perceive leadership similarly.

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Introduction

It's All About Me: The Role of the Self in Predicting Leadership Perceptions

Perhaps the influence that leaders acquire lies in their ability to invoke a similarity between themselves and their followers. Followers may prefer a leader that is analogous to them, that is, someone who holds similar traits and characteristics. The study of leadership over the years has taken many different perspectives. Within the 1980's, researchers began examining the role that followers play in the leadership process. Based on Rosch's categorization theory, Lord and colleagues (e.g., Lord, Foti, & Phillips, 1982) argued that individuals hold a general belief concerning the traits and behaviors they consider typical of leader. That is, people hold their own implicit leadership theory that dictates their behavior expectations for leaders. Over the years, researchers have found that people posses a leadership prototype (e.g., Epitropaki & Martin, 2004; Kenney, Blascovisch, & Shaver, 1994; Offermann, Kennedy, & Wirtz, 1994). In addition, it has been established individuals use their leadership prototypes when evaluating a leader. Prototypical leaders are evaluated more favorably than non-prototypical leaders (e.g., Cronshaw & Lord, 1987).

The study of implicit leadership theory has revealed that there is both congruence and variance in leadership prototypes among individuals. Across multiple leadership prototype studies, there is a general consensus on the top two or three traits exemplary of a leader. For example, many studies have found determination to be descriptive of leaders (e.g., Gerstner & Day, 1994; Kenney, Schwartz-Kenney, Blascovich, 1996; Lord, Foti, & DeVader, 1984). However, there are studies to suggest that people also differ in their perceptions of a prototypical leader. For example, in some experiments, psychologists have been able to categorize leadership prototypes into either goal-oriented styles or people-oriented styles (e.g., McElwee, Dunning,

Tam & Hollmann, 2001); whereas, other researchers have classified participants' leadership prototypes along three interpersonal dimensions: friendly/unfriendly, dominance/submission, and instrumentally controlled/emotionally expressive (Nye, 2002; Nye & Forsyth, 1991). In addition to variance in the perception of traits and behaviors thought to be prototypical of leader, there is also discrepancy in which gender is better suited for leadership roles. In general, men possess a more masculine leadership prototype than women (e.g., Brenner, Tomkiewicz, & Schein, 1989). Men are less likely than women to perceive women as possessing the traits characteristic of a leader.

Part of the variability among individuals in their leadership prototypes might be explained by the perception of traits and characteristics they believe they themselves posses. Indeed, research suggests that people hold idiosyncratic and self-serving prototypes (e.g., Dunning, Perie, & Story, 1991). That is, the importance of a particular characteristic (e.g., intelligence) in a person's view of leadership is based on the extent to which he/she possess related traits (e.g., he/she reads widely). Some psychologists (e.g., Keller, 1999) have established a relationship between participants' personality traits (e.g., conscientiousness) and their desire for leaders to possess similar traits (e.g., dedication). Furthermore, Dunning and colleagues (e.g., McElwee & Dunning, 2005) found that participants evaluate leaders with whom they share personality attributes more favorably than they evaluate leaders with whom they do not share such traits.

Within the field of implicit leadership theories, research has established that: (1) individuals hold a leadership prototype, (2) an individual's leadership prototype is influenced by self-perceptions which are generally self-serving and (3) individuals rely on their prototypes when forming leadership perceptions (e.g., leadership emergence, effectiveness). Although

empirical support for such findings exists generally in the literature, no published study has demonstrated all three findings together, nor how the first two might differentially affect the third. Specifically, there has been no study that has examined how self-perceptions might influence the relationship between leader prototypes and individual's perceptions and evaluations of a real leader's behaviors. The goal of the present study is to investigate how personal characteristics of individuals might influence their leadership prototype and, in turn, how such personal characteristics might influence their evaluation of leaders.

The following review will (a) provide a definition and theoretical foundation for implicit leadership theories, (b) present empirical findings demonstrating that leadership prototypes influence ratings of leadership emergence and effectiveness, (c) provide evidence that there is both consistency and variance in leadership prototypes, (d) present findings that self-perceptions influence leadership prototypes, and (e) review the literature that suggests self-perceptions of leadership traits are related to leadership perceptions in others.

Implicit Leadership Theories

Implicit leadership theory proposes that people have a general belief about the traits and behaviors considered prototypical of a leader (e.g., Lord et al., 1982). That is, individuals hold their own prototypical view of the characteristics that comprise a leader. People use their implicit leadership theories in deciding if an individual is a leader. In such situations, the stimulus person is compared to one's abstract representation of a leader and the extent to which the stimulus person shares the attributes of the leadership prototype determines whether the person will be categorized as leader (Lord & Hall, 2003). Simply stated, if an individual matches the person's prototype of a leader, then he or she will likely be perceived as a leader. In addition to being more likely perceived as the leader, a person who exhibits traits consistent with the prototypical

leader is evaluated more favorably than others without such traits (Nye &Forsyth, 1991). Leadership prototypes guide followers' perceptions of leaders. Prototypes dictate which type of people will be viewed as the leader as well as how they will be evaluated.

In one of the seminal studies exploring leadership prototypes, Lord et al. (1984) had undergraduate students generate lists of attributes they thought applied to 1 of 11 types of leaders (e.g., business leader, national political leader, military leader). Separate lists were generated for each of the 11 types of leaders and combined indicating how frequently a given characteristic occurred for each of the 11 leader types. For a trait to be applied to a particular leader type it had to be listed by 3 of the 10 participants. This process resulted in a list of 59 leader characteristics. A second set of participants was instructed to generate a list of attributes that applied to 1 of 11 equivalent non-leader categories (e.g., businessman, politician, and soldier). Again, for an attribute to be applied to a specific category, it had to be stated by 3 out of the 10 participants. This procedure resulted in 26 non-leader attributes. Finally, a third set of participants rated how prototypical the characteristics generated from the previous two samples were of either a leader or a non-leader on a (1) "does not fit my image" to (5) "fits my image very well" scale. From these lists, a leader family resemblance score was calculated for the 59 leader characteristics. The leader family resemblance score was calculated by dividing the number of the times a trait was listed in each category by the total number of categories (i.e., 11). For example, the attribute of intelligence was listed in 10 out of the 11 leadership categories; therefore, its family resemblance score was .91. The following characteristics had both high family resemblance and leader prototypicality score: intelligent, honest, understanding, verbal skills, and determined. Each of these attributes was mentioned in at least 4 out of the 11 leadership categories and received a

mean of 4.0 or higher on leader prototypicality. The results were interpreted as evidence that people possess a "leader" prototype.

Study II in Lord et al. (1984) provides evidence that individuals use such prototypes when forming leadership perceptions. In this study, participants read a vignette about a manager. The vignettes portrayed the manager engaging in leadership behaviors considered prototypical, neutral, or anti-prototypical. Prototypical behaviors depicted in the vignettes included: emphasizing goals, providing information, specifying problems, and talking frequently. Anti-prototypical behaviors depicted in the vignettes included: admitting mistakes, withholding rewards, criticizing harshly, and neglecting details. Finally, neutral behaviors depicted in the vignettes included: seeking information, seeking suggestions, explaining actions, clarifying attitudes, and preventing conflicts. After reading the vignette, participants rated the managers on their leadership perceptions and behavioral expectations. There were significant differences on the dependent measures for the participants who read the prototypical and anti-prototypical vignettes. The prototypicality of the manager's behavior influenced participants' leadership perceptions. Specifically, participants who read the prototypical vignette were more likely to perceive the manager as a leader.

Consistent with Lord et al. (1984), Cronshaw and Lord (1987) found a positive relationship between measures of leadership emergence and prototypical leader behaviors. Specifically, participants viewed either a target engaging in more prototypical leader behaviors (i.e., 20) relative to anti-prototypical behaviors (i.e., 5) or a target engaging in more anti-prototypical behaviors (i.e., 20) relative to prototypical leadership behaviors (i.e., 5). Participants were more likely to perceive the target that engaged in prototypical leadership behaviors as a leader than the target that performed anti-prototypical leadership behaviors

Nye and Forsyth (1991) provided additional evidence that an individual's reaction to a leader is influenced by his or her implicit leadership theory. Nye and Forsyth (1991) assessed participants' individual differences in leadership prototypes. They classified participants' leadership prototypes along three dimensions: (1) dominance/submission, (2) friendly/unfriendly, and (3) instrumentally controlled/emotionally expressive. Afterwards, participants read a performance evaluation about either a task-oriented leader or a socio-emotional leader, and rated the leader on perceived effectiveness. The results revealed that the leader was seen as more effective when the leader's behavior matched the participants' prototypes. Specifically, participants who emphasized friendless rated the socio-emotional leader more positively than the task-oriented leader. On the other hand, participants who emphasized unfriendliness rated the task-oriented leader more favorably than the socio-emotional leader.

Offermann, Kennedy, & Wirtz (1994) conducted a study examining the content and structure of implicit leadership theories. Unlike Lord et al. (1984), they were interested in examining the factor structure of implicit leadership theories. Their experiment had five stages. In stage 1, undergraduate students were instructed to write down 25 traits or characteristics of a leader. The researchers eliminated items there were behaviors, items that were only listed once or twice and combined synonyms. The remaining items were 160 traits of a leader. Over half of the Lord et al. (1984) 59 items were represented in the pool of 160 traits. In the next stage, undergraduate students indicated how characteristic each trait was of either a (1) leader, (2) supervisor, or (3) effective leader. Next, a separate factor analysis was run for each of the three stimulus groups. Results revealed that there were no differences in factor structure across the three categories. Therefore, the three databases were merged into a single file. Results from exploratory factor analysis revealed eight factors: Sensitivity, Dedication, Tyranny, Charisma,

Attractiveness, Masculinity, Intelligence, and Strength. These eight factors included 57 items. In the third stage, undergraduate students placed each of 57 items onto the factor that was most appropriate. For 41 of the 57 items, at least 70% of the participants assigned it to the same factor. Those 41 items were retained. Next a confirmatory factor analysis was conducted to test if there was a different factor structure for rater sex and for the three stimulus categories (i.e., leader, supervisor, effective leader). The confirmatory factor analysis revealed that there was no factor structure difference by stimulus group or for rater sex for the 41 items. In the final step, the 41-item scale was validated with working adults (i.e., full time employee, mean age 39 years). As can be recalled, the prior steps in the experiment involved only undergraduate students. Participants were asked to indicate how characteristic each item was of a leader. Confirmatory factor analyses revealed that there were no significant differences between the undergraduate and adult samples. Based on their results, they concluded that implicit leadership theories are best conceptualized by the above stated eight factors (Sensitivity, Dedication, Tyranny, Charisma, Attractiveness, Masculinity, Intelligence, and Strength). Offermann et al. (1994) made an important contribution, as it was the first study to validate an implicit leadership theory measure on both undergraduate and working adults.

More recently, Epitropaki and Martin (2004) conducted another study examining implicit leadership theories. They were interested in validating the Offermann et al. (1994) scale in multiple organizational settings, in addition to investigating a shorter version of the scale. Epitropaki and Martin (2004) sought to test the generalizability of implicit leadership theories. Previous researchers have stated that ILTs are formed as a result of experiences over time with leaders. Since people have different encounters with and exposure to leaders, there should be variation among people in their implicit leadership theories. Epitropaki and Martin (2004) also

contended that a shorter measure of implicit leadership should be developed if the study of implicit leadership theories in organizational settings is to continue.

Epitropaki and Martin's (2004) study was comprised of two independent samples. The purpose of the first sample was to validate the Offermann et al. (1994) 41-item scale with a larger full time employee sample and to examine the most succinct measure of implicit leadership theory for organizational settings. The second sample served to cross validate the findings from the first sample as well as test the generalizability of implicit leadership theories across multiple employee groups. Sample one consisted of 500 full time British employees. The participants represented a range of occupation type (e.g., managers, professional staff, technical staff, clerical, sales, etc.). Females represented 51% of the sample. Sample two included 439 employees from one service and six British manufacturing companies. Participants in sample two also came from a similar diverse array of jobs. Males represented 67% of the sample.

Participants in the Epitropaki and Martin (2004) study were instructed to indicate how characteristic each of the 41 traits was of a business leader. Through examining latent factor correlations, cross loadings, and multiple factor solutions, they reduced the 41 item eight factor solution to a 31-item six correlated factor solution, with the following factors: Sensitivity, Intelligence, Dedication, Dynamism, Tyranny, and Masculinity. The Attractiveness items along with five other items were dropped. The Strength and Charisma subscales were merged together and renamed to Dynamism. Epitropaki & Martin (2004) sought to further condense the 31-item measure. They retained only those items with means equal to or higher than 1 SD above the mean for the 31 item scale and those items that had mean equal or lower than – 1 SD below the 31 item mean. This resulted in a 21-item measure. Confirmatory factor analysis was conducted on the second sample. The six correlated factor model was tested against a (1) one factor model,

(2) two correlated factor model, and (3) second-order model. Results suggested the six-correlated factor structure provided the best fit to the data.

To test the generalizability of ILTs, participants were classified into categories: gender, age (young employees vs. older employees), organizational tenure (low organizational tenure vs. high organizational tenure), organizational position (shopfloor vs. non shopfloor), job type (managerial vs. non-managerial), and organizational type (services vs. manufacturing). Epitropaki & Martin (2004) found a significant difference in mean rating of the Sensitivity and Tyranny dimensions between males and females. Specifically, female participants rated Sensitivity higher and Tyranny lower than did male participants. Similar mean differences in Sensitivity and Tyranny were found between service and manufacturing employees. Service employees rated Sensitivity higher and Tyranny lower than did manufacturing employees. However, this finding may reflect gender difference and not organizational type, as 84% of the manufacturing employees were male and 92% of the service employees were female. A significant difference was also found between managers and non-managers on the Dynamism dimension. Managers rated Dynamism significantly higher than non-mangers. No other significant differences between the employee categories were found.

Certainly, such observed mean differences ratings of leaders across employee categories are at least suggestive of differences in underlying leader prototypes as a result of experience. Further evidence of differences was also found when Epitropaki & Martin (2004) tested for structural (factor) invariance across subgroups. Due to limited sample sizes in some of the employee subgroups, factor invariance could be tested only for age, tenure, and position. First, a six-correlated factor model was analyzed for each of the groups. Results indicated that the six-correlated factor model fit the data well for all six groups. Total invariance was supported for

organization tenure, suggesting that implicit leadership theories are generalizable across length of time employed. Partial invariance was found for age and position. The significant chi-square differences suggested that there were differences in factor covariances between younger and older employees, and shopfloor and non-shopfloor employees. Despite differences in factor covariance, the fit statistics indicated that the same six-factor model was supported for both young and old employees and for shopfloor and non-shopfloor employees.

The results from Epitropaki & Martin (2004) suggest that a 21-item six-correlated factor model best represents implicit leadership theories for full time employees. The six-correlated factor model generalized across, age of employee, organizational tenure, and organizational position for shopfloor and non-shopfloor employees. Although the six-correlated factor model was not tested separately for gender, mean gender differences between two of the dimensions were found. Males viewed prototypical business leaders as higher on tyrannical (e.g., domineering, manipulative, pushy) traits and lower on sensitivity (e.g., understanding, helpful sincere) traits as compared to females. In addition, managerial employees perceived the typical business leaders as possessing more dynamic (e.g., energetic, strong, dynamic) traits than non-managerial employees. Such results are consistent with variation in leadership perceptions based on gender that have long been noted by other researchers.

Think Manager - Think Male

Lord et al. (1984), Offermann et al. (1994), and Epitropaki & Martin (2004) all investigated how individuals perceive a leader in general. Many of the attributes they found to be prototypical of a leader are commonly thought of as masculine characteristics. There has been an abundant of research that has investigated the gender typing of leadership attributes. This line of research is often referred to as *think manager - think male* (Schein, Mueller, Lituchy, & Liu,

1996). Within the *think manager-think male* research two procedures have been used to examine the masculine leadership prototype. One procedure, developed by Schein (1973) involves the use of an instrument now known as the Schein Descriptive Index (SDI). The other procedure, used by Powell and Butterfield (1979; 1989) employs a more traditional measure of gender differences, the Bem Sex Role Inventory (BSRI; Bem, 1974). Each line of research will be discussed in turn.

Schein (1973) developed a list of 92 adjectives (based on prior work and pilot studies) that are commonly used to describe men and women. She had male middle managers read the list of adjectives and indicate how well each attribute described either women in general, men in general, or successful middle managers. Each participant was only asked to assess one of the three target stimulus groups. Intraclass coefficients were computed to examine the similarity between the three stimulus groups. Results revealed that there was a strong resemblance between rating of men and managers ($r' = .62$). However, there was no relationship between ratings of women and managers ($r' = .06$). These results suggest that successful middle managers are perceived to possess traits that are more commonly ascribed to men than women in general. This study was replicated two years later with female middle managers. Schein (1975) found that women also perceived a strong resemblance between ratings of men and managers ($r' = .54$). However, although not as strong, female managers also displayed a similarity between ratings of women and managers ($r' = .30$). Both male and female managers saw successful middle managers as possessing traits that are more commonly attributed to men than women in general.

Brenner, Tomkiewicz, and Schein (1989) conducted a follow up study 14 years later. This study included both male and female managers. Again, participants were asked to indicate how descriptive a list of characteristics and traits were of either men in general, women in

general, or successful middle managers. Male participants still saw a large resemblance between men and managers (r′ =.72) and no similarity between women and managers (r′ = -.01). That is, male participants saw managers as possessing similar traits and characteristics as men in general. Their prototype of a manger or leader is masculine. However, in contrast to previous findings, women displayed a similar resemblance between both men and managers (r′ =.59) and women and managers (r′ =.52)[1]. Women now perceived managers as possessing both masculine and feminine characteristics. Further inspection of the data revealed that women perceived women differently than men perceived women. Based on previous studies (Schein 1973; 1975), Brenner et al. (1989) calculated the intraclass coefficients to examine if the ratings of how participants described men and women in general were different from how they described men and women in general in Schein (1973) and Schein (1975). In the prior Schein studies female and male participants described women in general very similarly (r′ =.89). However, in this study, men and women agreed less (r′ =.62) on the depiction of women. There was little difference in how male and female participants described men in general (r′ =.92, Schein 1973, 1975; r′ =.88; Brenner et al. 1989) and successful middle managers (r′ =.99, Schein 1973, 1975; r′ =.95; Brenner et al. 1989) across time. The results from the previous Schein studies (1973; 1975) and Brenner et al. (1989) suggest that female managers no longer sex type managerial jobs; whereas men still see managers as possessing masculine attributes.

Other researchers have corroborated and extended Schein's findings (e.g., Deal & Stevenson, 1998). Heilman, Block, Martell, & Simon (1989) found that male managers displayed a stronger resemblance between their description of men and successful managers (r′=. 54) than

[1] These two correlations were not significantly different from each other.

women and successful managers (r′= -.24). The resemblance between women and successful middle managers increased when women were depicted as managers (r′=.58). That is, the overlap between how participants described women and women managers increased, however, they still did not equal the correspondence between men and male managers (r′=.86). Martell, Parker, Emrich, & Crawford (1998) had male mangers rate how typical a series of behaviors were for male middle managers and for female middle managers. The results revealed that the behaviors classified as characteristic of leadership ability were rated as more typical of a male middle manager than of a female middle manager. Lastly, Deal and Stevenson (1998) had undergraduate students complete the SDI. As with prior Schein studies, participants were presented with one of three stimulus groups: (1) successful middle managers, (2) successful male middle manager, or (3) successful female middle managers. However, instead of indicating on a five-point scale how characteristic each traits was of one of the stimulus groups, participants were instructed for each of the 92 items to indicate if it was characteristic or not characteristic of the target group. Male and female undergraduates agreed in their description of a manager and male manager but there was substantial difference in how male and female undergraduates labeled a female manager. In general, male undergraduates held a much more negative perception of female managers than female undergraduates. Specifically, male undergraduates were more likely than female students to characterize female managers as bitter, deceitful, quarrelsome, nervous, hasty, vulgar, and easily influenced. In addition, they found that male undergraduates were less likely than female undergraduates to characterize female managers as ambitious, intelligence, assertive, authoritative, dominant, and competent.

Powell and colleagues have also studied leader gender stereotyping but have used a more traditional measure of gender differences. Powell and Butterfield (1979) had undergraduate

business students and part-time MBA students complete the Bem Sex Role Inventory (BSRI; Bem, 1974). The BSRI is comprised on 60 items (20 masculine, 20 feminine, 20 neutral items). Participants were instructed to indicate how characteristic each item was of themselves and of a good manager. Masculine and femininity scores were calculated for the "good manager" scores. Based on their masculinity and femininity scores, participants description of a good manager fell into one of four categories: (1) Masculine (masculinity scores above median and femininity scores below median), (2) Feminine (masculinity scores below median, and femininity scores above median), (3) Androgynous (masculinity and femininity scores above median), and (4) Undifferentiated (masculinity and femininity scores below median). Powell and Butterfield (1979) found that the male and female undergraduates as well as male and female part-time MBA students held a masculine leader prototype. Specifically, 70% of male undergraduates, 67% of female undergraduates, 72% of male MBA's and 80% of female MBA's "good manager" responses were categorized as masculine. These results are analogous to Schein (1973) and (1975). Both male and female students described a manager as possessing traits and characteristics that are more commonly ascribed to men than women. The men in the samples perceived a manager as analogous to themselves, whereas the females perceived a manger as dissimilar to themselves.

Powell and Butterfield (1989) conducted a follow-up study 10 years later. Powell and Butterfield (1989) used the Short BSRI to assess gender bias in managerial perceptions. Powell and Butterfield (1989) had undergraduate business students and part-time MBA students complete the Short BSRI for both themselves and for a good manager. The results are very similar to Powell and Butterfield (1979). Between 65% and 75% of the participants' "good

manager" responses were categorized as masculine. Ten years later, undergraduate and graduate students still perceived a good leader as possessing more masculine than feminine traits.

Powell, Butterfield, and Parent (2002) conducted a third follow up study to examine if leadership prototypes had changed over the last twenty years. The results revealed that a good manager was categorized as masculine more frequently than the other three categories (i.e., feminine, androgynous, and undifferentiated). However in contrast to the findings from Powell and Butterfield (1979) and Powell and Butterfield (1989), fewer participants categorized a good manager as masculine. Specifically, 44% of male undergraduates, 52% of female undergraduates, 58% of male MBA's and 56% of female MBA's "good manager" responses were categorized as masculine. The Powell and Butterfield studies suggest that over time both male and female students categorize a good manager as possessing fewer masculine attributes. However, it still should be noted that a good manager was still categorized as masculine by approximately half of the students.

Eagly and Karau (2002) have argued that the reason why women are not perceived as possessing the traits necessary for leadership is because the characteristics associated with their gender are not analogous to the traits that define leadership. Eagly and Karau (2002) stated that people hold gender roles about each sex. These gender roles dictate norms regarding the behavior expectations for men and women. Women are believed to possess communal attributes, such as nurturing, gentle, kind, sensitive, sympathetic, and helpful. In contrast, men are believed to hold agentic qualities, such as ambitiousness, dominance, aggressiveness, confidence, and leadership. The qualities that people consider prototypical of a leader are generally agentic (i.e., industrious) qualities. Therefore, a lack of fit between the female role and the leader role exists. However, interestingly the predominant finding regarding gender differences in leader

prototypes reviewed (at least for studies conducted recently) suggests men perceive more of an incongruence between the female role and the leader role than women.

Eagly and Karau (2002) do not offer an explanation for why the lack of consistency between the leader and female role only influences men's perception of female leadership. However, one possible explanation might be that the adoption of the traditional female role is not as strong for women and it is for men. Such reasoning would be consistent with Brenner et al. (1989) who provided evidence that men and women disagree on the characteristics that define women. Such variance between men and women on the qualities that define women may be related to more general characteristics of how people define themselves.

The role of the self in prototypes

Research reveals that there is both variance and consistency between people in their implicit leadership theories. Many studies that have found intelligence, dedication, and sensitivity to be prototypical of a leader (Epitropaki & Martin 2004; Lord et al., 1984; Offermann et al., 1994). Just as there is agreement on prototypical leader traits there is abundance of variance between people as well. When asked to generate a list of characteristics prototypical of a leader, Offermann et al. (1994) found there were 455 unique items. Nye and Forsyth (1991) were able to classify participants' leadership prototypes along three dimensions: (1) dominance/submission, (2) friendly/unfriendly, and (3) instrumentally controlled/emotionally expressive. Dunning, Perie, & Story (1991) and McElwee, Dunning, Tan, & Hollmann (2001) colleagues have categorized participants' leadership prototypes as either goal-oriented or people-oriented. Engle & Lord (1987) found variance in both supervisor and subordinate implicit leadership theories. For example, they found that supervisors' implicit leadership theory was related to leadership member exchange quality. The *think manager - think male* research

indicates there is considerable difference between male and females in their perception of the female leadership prototype.

One possible explanation for differences in implicit leadership theories is personal experiences. Researchers have long suggested that implicit leadership theories are formed from both direct and indirect experiences with leaders. Despite this sweeping statement there has been little research examining the construction of implicit leadership theories. What research that has been conducted has not focused on the formation of implicit leadership theories but rather examined if there are any differences between people who are assumed to have had diverse experiences. The two most commonly examined variables are age and tenure. It has often been thought that young and older employee and those of low and high organization tenure would have had distinctive experiences with leaders and as such would exhibit different implicit leadership theories. The results for age and tenure influencing implicit leadership theories have been considerably weak. As can be recalled, Schein (1973) found that overall male managers did not perceive a similarity between the ratings of women and managers ($r' = .06$). However, participants over the age of 49 did exhibit a small, but significant resemblance between the ratings of women and managers ($r' = .16$). Schein (1975) found that tenure not age influenced implicit leadership theories. Specifically, women with one to four years tenure did not perceive a correspondence between women and managers ($r' = .17$); however, the overall sample did exhibit a resemblance between women and managers ($r' = .30$). Conversely, Powell and Butterfield (1979; 1989) did not find a difference in perceptions of managers between their two samples (i.e., undergraduates and part-time MBA students). Both samples, perceived a good manager as masculine. Also, Brenner et al. (1989) and Heilman et al. (1989) found that neither age nor tenure influenced mangers perception of the traits considered prototypical of leaders. Epitropaki

and Martin (2004) also found that there were no significant differences in their six leadership factors between young and older employees and between low and high organizational tenure.

If as researchers have hypothesized that differences in implicit leadership theories are due to personal experiences with leaders then research should concentrate on more closely examining the individual. Social psychology has demonstrated how critical the role self-schemas or self-concept plays in processing and evaluating information (Mussweiler, Epstude, & Ruter, 2005). Markus, Smith, & Moreland (1985) found that participants' self-concept bias their social perceptions. In their study, male masculine schematics (i.e., those who indicated possessing traditional masculine traits such as, aggression, dominance, leadership ability) and male aschematics (i.e., did not define themselves in either a traditional masculine and feminine manner) watched a film observing a male actor engaging in equal number of masculine activities (e.g., lifting weights) and neutral activities (e.g., playing a record). After watching the film, participants were asked to describe the actor by completing the Bem Sex Role Inventory. Results revealed that masculine aschematics ascribed more masculine attributes to the actor than aschematics. However, there were no differences between schematics and aschematics in the number of feminine and neutral characteristics attributed to the actor. These results suggest that how people define themselves (e.g., self-concept) can influence their evaluation and perception of others. Lewicki (1984) made a similar conclusion. He found that when participants held a favorable impression of another (e.g., a friend) they were quick to indicate that the other person held the same traits as themselves. That is, if they liked the target person, they were quicker to indicate that person held the same traits as they did (i.e., characteristic traits) than for traits they considered uncharacteristic of themselves.

Research from Dunning, Peire, & Story (1991) revealed that participants' prototypes are idiosyncratic and self-serving. In study one, participants were given a list of 10 characteristics of intelligence (e.g., good vocabulary, thinks before speaking and doing) and were asked to indicate how well each of the 10 traits fit their perception of intelligence. Approximately a week later, participants were asked to rate how characteristic the 10 attributes of intelligence were of them. The results revealed that there was a significant relationship between participants' self-perception and their definition of intelligence. Specifically, the within subject correlation between prototypicality rating and self-ratings was $r = .38$. For participants, the extent to which a characteristic of intelligence was fundamental to their prototype of intelligence was dependent on whether they perceived themselves as possessing that given attribute. The same procedure was followed for study two. However, in study two, participants were asked to indicate the prototypicality of behaviors that defined submissiveness. The pattern of findings was reversed for the negative attribute. That is, the within correlation analysis found that the characteristics that were *not* self-descriptive were seen as more prototypical of submissiveness ($r = -.31$).

Study three sought to replicate the findings of study one with another social category (i.e., leadership) using a different methodology. In study three, participants first completed a personality pre-test. The pre-test contained two factors: goal-oriented and people-oriented. Participants who were classified as goal-oriented described themselves as ambitious, competitive, determined, directed, never gives up, persistent, and independent. In contrast, people-oriented participants were characterized as friendly, approachable, dependable, extraverted, persuasive, pleasant, and tactful. The traits that encompass the two scales have been identified as prototypical of leaders in other studies. Approximately one to two weeks later, participants indicated how characteristic a list of 25 personality traits was of a leader. The list

included seven goal-oriented and seven people-oriented traits. As with study one, there was a relationship between prototypicality and possession of the trait (r = .17) Goal-oriented participants rated goal-oriented items as more prototypical of a leader than people-oriented participants. People oriented participants did perceive people oriented traits as more critical to a leader than goal-oriented participants; however, this finding did not reach significance.

The results of study one, two, and three demonstrate that people's prototype of a given domain are related to their self-perceptions. In addition, the results revealed that individuals' prototype of a given trait is self-enhancing. For intelligence and leadership (desirable traits) there was a positive correlation between prototypicality and self-ratings. However, for the undesirable trait of submissiveness there was a negative relationship between self-ratings and prototypicality. Dunning et al. (1991) suggest that people's trait definitions are self-serving and egocentric.

McElwee, Dunning, Tam, and Hollmann (2001, Study 2) investigated if people apply their idiosyncratic trait definition when evaluating both themselves and other people. Participants were undergraduate students who previously had been categorized has possessing either a goal-oriented leadership style or a people-oriented leadership style. Participants were asked to evaluate a well-known leader (e.g., Martin Luther King Jr., John F. Kennedy) and a well-known non-leader (e.g., Bill Cosby, Dr. Seuss). Pilot study results revealed that the non-leaders were seen as similar to the leaders in regards to familiarity (i.e., knowledge of the person) and likeability and were also perceived as possessing significantly less leadership. Participants were asked to indicate the extent to which the leaders and non-leaders possessed a list of personality traits (i.e., goal-oriented and people-oriented) as well as rate the degree to which the person was likable.

Results demonstrated that people-oriented participants rated the leaders as possessing more people-oriented traits than the goal-oriented participants. Goal-oriented participants rated leaders as possessing more goal-oriented characteristics than people-oriented participants, however, this effect failed to reach significance. In regards to the non-leaders, there was no difference in perception between the people-oriented and goal-oriented participants. That is, participants' leadership style influenced their evaluation of known leaders, but not non-leaders. In general, participants perceived leaders as possessing comparable traits to themselves. However, despite viewing leaders as more similar to them, participants did not rate them higher on likeability. Participants perceived the leaders and non-leaders as equally likable.

In study three, undergraduate women completed three measures to assess the relationship between their own traits, their trait definition, and their evaluation of others. For the first measure, participants indicated the degree to which they possessed 27 traits, which defined three domains: leadership, intelligence, and creativity. For the trait definition measure, participants were instructed to indicate how well each of the traits fit their ideal image of that specific category. For the third measures, participants read 27 descriptions of people that included three characteristics of either creativity, intelligence, or leadership. After reading each description participants were asked to indicate the degree to which the person was a good leader, intelligent, and creative. McElwee et al. (2001) found a significant relationship between self-ratings, trait definition, and perception of others for all three domains. In a series of regression analyses they found that the relationship between self-ratings and perceptions of others was completely explained by participants' trait definition.

The results of Markus et al. (1985), Dunning et al. (1991), and McElwee et al. (2001) provide support that how people define traits or a domain is related to how they perceive

themselves in that given domain. Specifically, trait definitions, such as intelligence are self-serving. If participants believe they possess one the characteristic of intelligence (e.g., reads widely) they will rate that characteristic as being more prototypical of intelligence. In addition, McElwee et al. (2001) found that participants use their self-serving definitions when evaluating other people. In study two, participants saw well-known leaders, such as John F. Kennedy as being similar to them. McElwee et al. (2001) also found that variance in perceptions of others can be explained by participants' distinctive trait definitions. The results of these studies further illuminate the need to fully examine the self when studying leadership prototypes.

My ideal leader is me

Keller (1999) conducted a study investigating variance between people in their implicit leadership theory. Keller (1999) hypothesized that variance in implicit leadership theories can be explained in part by individual personality differences. It has been established in social psychology literature that people like and are attracted to those who are similar to the self (Berscheid, 1984). Keller attempted to map the Big Five personality dimensions onto five of Offermann et al. (1994) leadership scales (i.e., sensitivity, dedication, tyranny, charisma, and strength). Undergraduate students completed NEO Big Five Inventory and Offermann's 41 item leader prototype measure three weeks apart. For the NEO, undergraduates were instructed to indicate on a five-point scale the degree to which each item portrayed them. For Offermann's measure participants indicated on a five-point how well each trait depicted their ideal leader. Keller found modest support for her prediction that an ideal leader is analogous to the self. Specifically, agreeableness predicted leader sensitivity ($\beta = .15$, $p < .01$), consciousness predicted leader dedication ($\beta = .23$, $p < .01$), and extraversion predicted leader charisma ($\beta = .21$, $p < .01$).

Perhaps one reason why Keller did not find a stronger relationship between personality and leadership prototype is due to using the entire personality construct to predict implicit leadership. Paunonen and Ashton (2001) have found that the sub-facets of personality constructs can be better predictors than the entire construct in particular instances. For example, agreeableness is comprised of six facets: trust, straightforwardness, altruism, compliance, modesty, and tender-mindedness. Keller used the entire construct of agreeableness to predict leader sensitivity. Offermann et al. (1994) defined leader sensitivity as being sympathetic, sensitive, compassionate, understanding, sincere, warm, forgiving, and helpful. There are some marked differences between being agreeable and being sensitive. For example, the facets of compliance, straightforwardness, and modesty are not contained in the measure of leader sensitivity. Only using the global measure of agreeableness may have attenuated the observed relationship between agreeableness and leadership sensitivity.

Further evidence that participants' self-perception of their personal attributes influences their leadership prototype comes from Powell and Butterfield (1979). As can be recalled, Powell and Butterfield (1979) had undergraduates and part-time MBA students complete the BSRI for both themselves and their ideal manager. However, despite that the majority of students identified a masculine leader prototype (69%) as their ideal there was still a relationship between self-perception or self-group (i.e., either masculine, feminine, androgynous, and undifferentiated) and leader prototype group. Within each of the four categories, the strongest support for that leader prototype came from those participants within that category. For example, approximately 17% of the students preferred an androgynous leader. Of those participants who favored an androgynous leader 46% were classified as androgynous themselves. Additionally, of the 12% of students who preferred an undifferentiated leader, 50% were categorized as undifferentiated.

These results provide further evidence that variance in implicit leadership theories can be explained by personal characteristics and attributes of the individual. For some people their ideal leader is analogous to their self. The results of Dunning et al. (1991) mirror the findings from Keller (1999) and Powel and Butterfield (1979). As can be recalled, they found that participants' view of leadership was related to the possession of leadership traits. Specifically, participants who indicated that they possessed goal oriented traits, such as ambitious, and competitiveness, defined the domain of leadership similarly. That is, goal-oriented traits were seen as prototypical of a leadership.

Present Study

The present study sought to extend the current literature on the relationship between implicit leadership theories and leadership perceptions. Research has demonstrated that people possess a leadership prototype and such prototypes influence leadership perceptions. The extent to which the target person shares the attributes of the leadership prototype determines whether the person will be categorized as a leader. In addition, prototypical leaders are viewed more favorably than non-prototypical leaders. There is also research to suggest that not all individuals hold the same prototype. Implicit leadership theory studies have revealed that there is both consistency and discrepancy in leadership prototypes. One explanation for the variance in leadership prototypes is individuals' self-perception of their leadership traits. That is, the traits one consider characteristic of a leader may be the same traits one believes he or she possesses. What is left unknown from prior work, however, is if and, if so, how characteristics of the self influence individuals' perception of leadership and evaluations of real-world leaders. This study examined if self-perceptions of personally possessed leader attributes would have only a direct influence on leadership perceptions, or if self-perceptions of personally possessed leader

attributes have an indirect influence on leadership perceptions, that is, the effect is mediated by personal implicit leadership theory or leadership prototypes.

In addition to exploring self-perceptions of leadership traits, implicit leadership theories, and leadership perceptions in one experiment, this study extended the literature by researching such variables in a situation more similar to a real work setting. Prior work in self-perceptions contributing to leadership prototypes has generally examined "paper" people where traits and/or behaviors are explicitly stated. In the present study, participants had to utilize their own leader prototypes to infer the leadership traits of others through observation of exhibited behaviors under relatively controlled conditions. In the present study, after completing measures of self-perceptions of leadership ability and leadership prototypes, participants viewed video vignettes of a group of four actors (two men and two women) interacting in a simulated work setting. Two of the characters in the vignettes (one male and one female) engage in more leadership behaviors than the other two characters and constitute the target actors to be rated by the participants. After viewing a series of these vignettes, participants completed a set of specific measures designed to assess their perceptions of the target actors' (i.e., Bob and Sue's) leadership characteristics, leadership emergence, and leadership effectiveness.

Hypotheses

Several specific hypotheses were tested in this study. Hypothesis I predicted a relationship between self-perceptions of traits and implicit leadership theories. This hypothesis predicted replication of previous work. As can be recalled, Dunning et al. (1991) found that participants who perceived themselves as possessing goal-oriented traits (e.g., ambitious, independent) indicated that a leader should possess the same characteristics. In addition, Powel and Butterfield (1979) found an analogous relationship between participants' possession of

masculine and feminine traits and their desire for a leader to hold similar masculine and feminine traits. Therefore it is hypothesized that:

> *Hypothesis I: Self-perception of leadership traits would significantly predict one's leadership prototype*.
>
> > *a: Sensitivity self-perceptions would significantly predict sensitivity leadership prototype.*
> > *b: Intelligence self-perceptions would significantly predict intelligence leadership prototype.*
> > *c: Dedication self-perceptions would significantly predict dedication leadership prototype.*
> > *d: Dynamism self-perceptions would significantly predict dynamism leadership prototype.*

Additionally, this study sought to replicate the finding that characteristics of the self can influence participants' perception of another's behavior. Markus et al. (1985) found that participants who described themselves as possessing traditionally masculine characteristics perceived an actor as possessing more masculine traits than participants who did not possess masculine traits. In addition, McElwee et al. (2001) found a significant relationship between self-ratings of leadership traits and leadership perceptions of another person. Leaders who held the same traits as the participants were evaluated more favorably in regards to overall leadership. A similar relationship was predicted in the present study.

> *Hypothesis II: Self-perceptions of leadership traits would significantly predict the ratings of the target actors' leadership characteristics.*
>
> > *a: Sensitivity self-perceptions would significantly predict sensitivity ratings for Bob (Sue).*
> > *b: Intelligence self-perceptions would significantly predict intelligence ratings for Bob (Sue).*
> > *c: Dedication self-perceptions would significantly predict dedication ratings for Bob (Sue).*
> > *d: Dynamism self-perceptions would significantly predict dynamism ratings for Bob (Sue).*

Prior work (e.g., Nye & Forsyth, 1991, Hall, Workman, & Marchioro, 1998) has also

established that implicit leadership theories or leadership prototypes influence leadership perceptions. Additionally, Cronshaw and Lord (1987) found a positive relationship between measures of leadership emergence and prototypical leader behaviors. A similar finding was predicted in the present study.

> *Hypothesis III: Participants' leadership prototype would be significantly related to their ratings of the target actors' leadership characteristics.*
>
> > *a: Sensitivity leadership prototype would significantly predict sensitivity ratings for Bob (Sue).*
> > *b: Intelligence leadership prototype would significantly predict intelligence ratings for Bob (Sue).*
> > *c: Dedication leadership prototype would significantly predict dedication ratings for Bob (Sue).*
> > *d: Dynamism leadership prototype would significantly predict dynamism ratings for Bob (Sue).*

Since this is the first study to assess simultaneously self-perceptions, leadership prototypes, and leadership perceptions, both direct relationships as well as mediational relationship would be tested. Assuming support was found for Hypotheses I and II, the fourth hypothesis proposed:

> *Hypothesis IV: Participants' leadership prototype would partially mediate the relationship between participants' self-perception of their leadership traits and the ratings of the target actors' leadership characteristics.*
>
> > *a: Sensitivity self-perceptions → sensitivity leadership prototype → sensitivity ratings for Bob (Sue).*
> > *b: Intelligence self-perceptions → intelligence leadership prototype → intelligence ratings for Bob (Sue).*
> > *c: Dedication self-perceptions → dedication leadership prototype → dedication ratings for Bob (Sue).*
> > *d: Dynamism self-perceptions → dynamism leadership prototype → dynamism ratings for Bob's (Sue).*

Hypotheses II thru IV focused on predicting specific leadership characteristics of Bob and Sue. Based on prior literature, it stands to reason that the extent to which participants' perceived the characteristics of Bob and Sue as a good match to their own leadership prototypes,

Bob and Sue would more likely be perceived as leaders (i.e., emergence) and be perceived as more effective ones (i.e., effectiveness). Prior literature has certainly demonstrated that prototypical leaders receive higher ratings on emergence and effectiveness than non-prototypical leaders (e.g., Cronshaw & Lord, 1987; Lord et al., 1984). It was also theorized in the present study that such a relationship would be moderated by participants' overall perception of their own leadership capabilities. That is, the extent to which the closeness of the match between Bob and Sue and the participants' leadership prototype predicted leadership emergence and effectiveness would be moderated by one's own self-leadership impression.

Hypothesis V: The match between participants' leadership prototypes and the ratings of leadership characteristics for Bob and Sue would predict leadership emergence. This relationship would be moderated by self-leadership impressions.

a: The relationship between the (1) match between participants' leadership prototypes and ratings of leadership characteristics for Bob and (2) leadership emergence ratings for Bob would be moderated by self-leadership impressions.

b: The relationship between the (1) match between participants' leadership prototypes and ratings of leadership characteristics for Sue and (2) leadership emergence ratings for Sue would be moderated by self-leadership impressions.

Hypothesis VI: The match between participants' leadership prototypes and the ratings of leadership characteristics for Bob and Sue would predict leadership effectiveness. This relationship would be moderated by self-leadership impressions.

a: The relationship between the (1) match between participants' leadership prototypes and ratings of leadership characteristics for Bob and (2) leadership effectiveness ratings for Bob would be moderated by self-leadership impressions.

b: The relationship between the (1) match between leadership prototypes and ratings of leadership characteristics for Sue and (2) leadership effectiveness rating for Sue would be moderated by self-leadership impressions.

The *think manager – think male* literature reviewed demonstrates that men and women

possess different leadership prototypes. As can be recalled, Brenner et al. (1989) found that female managers perceived leaders as having traits that are ascribed to both sexes, whereas male managers perceived leaders as having only masculine characteristics. What is absent from the literature is an explanation for why women and men disagree on the leadership prototype. The present study hypothesized that differences between men and women in their leadership prototypes are in part explained by their self-perceptions. Twenge (1997) conducted a meta-analysis examining masculinity and femininity scores across a twenty-year time span (1975-1994) and found that women's masculinity scores (measured with the Bem Sex Role Inventory) increased over time to a much greater extent than men's masculinity scores. She concluded that women now perceive themselves as possessing both masculine and feminine traits. These findings combined with the literature demonstrating that individuals prefer leaders to possess traits similar to them, suggest that the differences between men's and women's leadership prototypes are in part explained by differences in their own self-perceptions. It was, therefore, hypothesized that such differences in self-perceptions (especially in regards to self-perceptions of sensitivity) would predict differences in leader prototypes and ratings of leader emergence and effectiveness. Specifically, it was hypothesized:

> *Hypothesis VII: Females participants would rate sensitivity as more prototypical of a leader than male participants.*
>
> *Hypothesis VIII: Gender difference in sensitivity leadership prototype would be explained by sensitivity self-perceptions.*
>
> *Hypothesis IX: Participants high in sensitivity would be more likely than participants low in sensitivity to view the female actor as the leader.*
>
> *Hypothesis X: Participants high in sensitivity would rate the female actor higher on leadership effectiveness than participants low in sensitivity.*

Method

Participants

The participants for this study consisted of 377 individuals who at least started the on-line surveys and video vignettes. The average age of participants was 27.5 (range 19-72) and 60% were female. Approximately 72% of the participants were between 19-24 years old. Of the 377 participants, only 270 completed all the measures[2]. An analysis of the participant demographic data revealed age and college enrolment status differences between participants who completed all measures and those who completed only the scales presented prior the video vignettes (i.e., the self-perception of leadership traits and the leadership prototype measure). Specifically, older participants and those not currently enrolled in college were significantly less likely to have completed all the dependent measures, specifically the measures collected after the video vignettes (i.e., the ratings of the target actors Bob and Sue). One possible explanation for this difference might be due to variability between the groups in technology support. The video vignettes played best on more modern computers that had the most up-to-date web browsing software, and had a high speed (DSL or better) connection to the internet. Such computer requirements were necessary to accomplish the video streaming. The college population likely had better access to the required technology. Additionally, only the college population was offered compensation (in the form of extra credit in a psychology class) for participation.

Stimulus Vignettes

The stimulus materials employed in this study were a combined set of video vignettes originally created by Hanges, Lord, Day, Sipe, Gradwohl, and Brown (1998). Each vignette

[2] Of the 270, there were six participants that rated either the male (Bob) or female (Sue) target leader after viewing the video vignettes, but not both. These participants were retained and included in analyses where appropriate.

contained two male and two female actors portraying mutual fund mangers in a simulated work setting. Each individual vignette was approximately four to five minutes in duration. Each vignette was constructed to display a specific number of prototypical leadership behaviors as defined by previous research (Cann & Siegfried, 1990; Lord et al., 1984). Some examples of behaviors are making decisions, seeking information, and encouraging participation. Hanges et al. (1998) created two sets of nine vignettes. In both sets of nine vignettes, two of the actors (one male, one female) always display three prototypical behaviors. The number of leadership behaviors performed by the other two actors' changes in each vignette. These two actors, called Bob and Sue in the vignettes, constitute the target leaders for evaluation. In the first set of vignettes (i.e., female emergent tape) (see Table 1) Bob performs more leadership behaviors than Sue in the first four vignettes. In vignette number 5, Bob and Sue perform the same number of leadership behaviors. In the remaining four vignettes Sue engages in more leadership behaviors. The exact opposite pattern of behavior occurs in the second set of vignettes (see Table 2). That is, in these vignettes (i.e., male emergent tape) Sue executes more leadership behaviors than Bob in the first four vignettes and Bob engages is more leadership behaviors than Sue in the last four vignettes. Again, Bob and Sue perform the same number of leadership behaviors executed in the fifth vignette. Each leadership behavior (obtained from the creator of the vignettes) was classified as representing sensitivity, intelligence, dedication, and dynamism (see Table 3) by the experimenter. An example of a sensitive behavior is expressing concern about employees. An example of an intelligence behavior is providing information. An example of a dedicated behavior is deciding what should be done. Finally, an example of a dynamic behavior is encouraging participation. Table 4 contains frequency count of the type of leadership behaviors executed.

For the purpose of the study, participants viewed vignettes three through seven combined into one 22 minute presentation. Theses vignettes were chosen due to the ambiguity surrounding who might be perceived as the leader. Since Bob and Sue execute the same number of leadership behaviors (across the set of five vignettes), and since no title or other information is presented, it is unclear as to who is the leader of the group. In addition, across the five vignettes, Bob and Sue engage in a variety of leadership behaviors that represent specific leadership characteristics (e.g., sensitivity, intelligence, dedication, and dynamism) of interest. One hundred and thirty participants viewed vignettes three through seven for the female emergent tape and 144 participants watched vignettes three through seven for the male emergent tapes. Across the five vignettes, the target male and target female each engage in approximately 50 prototypical leadership behaviors.

Measures

Self-perception of Leadership Traits. The 31-item six factor measure (Appendix A) by Epitropaki and Martin (2004) was used to assess self-perception of leadership traits. Participants rated how well each of the traits presented were descriptive of themselves on a (1) "not at all descriptive" to (9) "descriptive characteristic" scale. For the purpose of this study only four of the factors were included in the primary analyses. The sensitivity factor ($\propto$ = 87) was comprised of understanding, warm, sincere, compassionate, helpful, sensitive, sympathetic, and forgiving. The intelligence factor ($\propto$ = .85) included wise, clever, intelligent, knowledgeable, educated, and intellectual. The dedication factor ($\propto$ = .86) was comprised of hardworking, dedicated, and motivated. Finally, dynamism ($\propto$ = .74) consisted of charismatic, energetic, strong, bold, and dynamic.

Leadership Prototype. The same 31-item Epitropaki and Martin measure (Appendix B) was used to assess leadership prototypes. Participants were instructed to rate the prototypicality of items for a business leader on a (1) "not at all characteristic" to (9) "extremely characteristic" scale. The factors of sensitivity ($\propto$ = 91), intelligence ($\propto$ = .84), dedication ($\propto$ = .84), and dynamism ($\propto$ = .77) all demonstrated excellent reliability.

Self Leadership Impression. A slightly modified General Leadership Impression inventory (see Appendix C) was used to assess participants' own impression of their overall leadership competency. The GLI is comprised of 7 items in which participants respond on a five-point scale ranging from (1) "nothing" to (5) "extreme amount." The measure was used with slight modifications to the wording to assess participants' overall perception of themselves as a leader. This measure was also found to have excellent reliability ($\propto$ = .86).

Evaluation of Leadership Characteristics (Bob and Sue). To assess the perceived leadership characteristics for Bob and Sue, participants were once again presented with the same Epitropaki & Martin (2004) 31-item measure just as before. In this instance, however, participants were instructed to rate the target actor Bob (and Sue) on the leadership characteristic items. The sensitivity factor ($\propto$ = .93, 93), intelligence factor ($\propto$ = .92, 91), dedication factor ($\propto$ = .86, .89), and the dynamism factor ($\propto$ = .85, .83) all displayed strong reliability.

Leadership Emergence (Bob, Sue). Leadership emergence was assessed by using the General Leadership Impression scale (GLI; see Appendix E). The GLI is comprised of 7 items in which participants respond on a five-point scale ranging from (1) "nothing" to (5) "extreme amount." Participants rated both the male ($\propto$ = .88) and female ($\propto$ = .88) leader.

Leadership Effectiveness (Bob, Sue). Leadership effectiveness was assessed by creating a composite score based on three bipolar scale ratings (1 – 9 point scale). The three bipolar scales were: competent – incompetent, productive – unproductive, and effective – ineffective. The reliability of this composite scale was .92 for Bob and .90 for the Sue.

Procedure

Participants were recruited through two methods. Student participants were solicited through a description of the study posted on Sona Systems. The advertisement on the Sona System included a description of the study and information regarding extra credit in a psychology course for participation. The second set of participants was solicited by an e-mail sent through a staff listserv at a small Midwestern school. The e-mail included a description of the study. Participants were directed to a website containing a list of the technical requirements necessary (i.e., up-to-date web browser with QuickTime software, high speed Internet connection, and speakers), an informed consent, the stimulus materials, and the described

measures. After answering some demographic questions (e.g., age, gender), participants completed the self-perception of leadership traits measure, the leadership prototype measure, and the self-leadership impression inventory. Next, participants were presented with vignettes three through seven (combined into one 22 minute video) from either the male emergent tape or either the female emergent tape. After viewing the video, participants rated the target actors on the evaluation of Bob and Sue leadership characteristics measure, the leadership emergence measure, and leadership effectiveness measure. The order of rating each of the target actors (Bob and Sue) was randomized across participants.

Design

The general design of this study was a 2 (gender of participants) X 2 (scenario condition) X (2) (gender of the target actor) mixed design. Gender of the participants and the scenario condition were between subjects factors and the gender of the target actor was a within subjects factor.

Results

Due to the large number of analyses required to test the hypotheses of this study and the overall power from the relatively large sample, the Type I error rate per analysis was set at alpha = .01. This was done both to protect the overall Type I error rate when drawing conclusions across a set of analyses, as well as to help ensure that any differences discussed would likely replicate in future work.

Table 5 presents the correlations among the variables. One potential concern with using the same scales (Epitropaki & Martin, 2004) for all measures was that many of the resulting variables would be so highly intercorrelated as to make it difficult to independently assess self-perceptions of leadership traits, leadership prototypes, and rating of leadership characteristic for

both Bob and Sue. As can be seen in Table 5, in the vast majority of cases, the correlations between the variables were not so highly intercorrelated. When examining the correlations between the self-perception scales and the leadership prototype factors, the majority of the self-perception traits correlate highest with the corresponding leadership prototype. For example, of the leadership prototype factors, sensitivity self-perception had the strongest correlation with sensitivity leadership prototype, dedication self-perception had the highest correlation with dedication leadership prototype, and lastly, dynamism self-perception had the strongest correlation with dynamism leadership prototype. Overall, the same pattern of correlations holds true when inspecting the relationship between the leadership prototype factors and the ratings of leadership characteristics for Bob and Sue. That is, the variable that relates the best to each leadership characteristic variable is the corresponding leadership factor[3]. In all of these cases, however, the correlations are not so high as to suggest that participants were unable to distinguish between self and prototype or prototype and target actor characteristics.

However, there are some variables that are more highly correlated. As can be seen in Table 5, these correlations occur among a couple of the leadership characteristics for the target actors Bob and Sue. For example, an examination of the table suggests that dedication and intelligence were not easily distinguished by participants when rating the target actors, despite being easily distinguished by participants when rating themselves or describing a leader prototype. One possible explanation for this pattern might be a general halo effect that occurred when rating the target actors. This halo effect might be related to participant inability to specifically identify target behaviors that were associated with the specific traits and tended to rate them together. Of note, however, is that while this halo pattern may have occurred at the

[3] The only instance in which this is not true is ratings of dedication for Bob.

specific characteristic level, it was not the case that participants carried such an effect over to their overall evaluations of the target actors' leadership emergence and effectiveness. As can be seen in Table 5, the "overly" high correlations are clearly limited to the characteristic level assessments of Bob and Sue. This finding may not be overly surprising given the fact that Bob and Sue only executed positive, prototypical leadership behaviors. The target actors exhibited no negative or anti-prototypical behaviors as may be more common in a less controlled environment.

First, a set of analyses were conducted to examine if the two tapes (i.e., the male emergent and female emergent tapes) were perceived similarly by participants. A series of independent sample t-tests were conducted across all of the dependent variables (i.e., target male leadership characteristics, target female leadership characteristics, leadership emergence and leadership effectiveness). There were no main effects for tape condition. Second, in order to test for possible interaction effects, a set of interaction variables were created between the measured independent variables (i.e., self-perception of leadership traits and leadership prototypes) and the tape variable. Multiple regression analyses were conducted to test if the tape variable interacted with any of the independent variables in predicting any of the primary dependent variables. Following standard practices (Pedhazur, 1997), the dependent variable was regressed on the independent variable in question and the tape variable in a first step, and then the interaction term was entered in a second step. There were no significant interactions found. Given this result, all analyses were collapsed across tape condition.

Next order effects were investigated. Independent samples t-tests were conducted across the set of dependent variables. The results revealed a general main effect for order across most of the dependent variables (i.e., evaluation of Bob and Sue leadership characteristics, Bob and Sue

leadership emergence, and Bob and Sue leadership effectiveness measures). Specifically, participants gave higher ratings overall to the target who was rated second as compared with the target who was rated first. This overall order effect did not interact with the gender of the target actor. Additionally, interaction terms were created to investigate if the order effect interacted with any of the primary independent variables in predicting the dependent variables. None of the independent variables interacted with order in predicting the dependent variables. Given that rating order was counterbalanced across participants and conditions and that when the order variable was added, its presence tended to reduce, but not eliminate, significant effects, the results presented below are reported without the order variable included.

Finally, a series of analyses were conducted to examine if the employed adult sample and the student sample responded similarity across the measures. To do this, a series of independent samples t-test were conducted across all of the measures. The results revealed significant differences between the employed adult and student sample on three of the leadership prototype factors. Specifically, the student sample had significantly higher means than the employed adult sample on sensitivity leadership prototype, intelligence leadership prototype and dedication leadership prototype. Next, interaction terms were created between the variable that distinguished the two samples (i.e., employed adult vs. student) and the leadership prototype factors, leadership characteristics for Bob and Sue and leadership emergence and leadership effectiveness for Bob and Sue. Regression analyses revealed that intelligence self-perceptions and sample interacted in predicting intelligence leadership prototype. The nature of the interaction can be seen when comparing the correlation between intelligence self-perceptions and intelligence leadership prototype for student sample (see Table 6) against the correlation between intelligence self-perceptions and intelligence leadership prototype for the adult sample (see Table

7). Specifically, the student sample exhibited a moderate positive correlation ($r = .43$, $p < .01$) between intelligence self-perceptions and intelligence leadership prototype. In contrast, there was no relationship between intelligence self-perceptions and intelligence leadership prototype ($r = .04$, $p < .01$) for the adult sample. There were no other significant interactions present between the sample variable and the primary measures.

Test of Hypotheses

To test Hypothesis I, bivariate correlations between the self-perceptions of leadership traits and the leadership prototype factors were examined.In support of Hypothesis I, sensitivity self-perceptions predicted sensitivity leadership prototype ($r = .37$, $p < .01$), intelligence self-perceptions predicted intelligence leadership prototype ($r = .33$, $p < .01$), dedication self-perceptions predicted dedication leadership prototype ($r = .34$, $p < .01$), and dynamism self-perceptions predicted dynamism leadership prototype ($r = .44$, $p < .01$). These findings provide support for the proposition that self-perceptions of leadership traits are positively related to the corresponding leadership prototype factor.

Hypothesis II was likewise tested by examining bivariate correlations. With respect to Bob and Sue, the bivariate correlations between ratings the leadership characteristics and the self-perceptions of leadership traits were examined. In support of Hypothesis II, sensitivity self-perceptions significantly predicted ratings of sensitivity ratings for Bob ($r = .19$, $p < .01$) and Sue ($r = .23$, $p < .01$). Intelligence self-perceptions also significantly predicted ratings of intelligence for Bob ($r = .17$, $p < .01$) and Sue ($r = .23$, $p < .01$). Dedication self-perceptions significantly predicated ratings of dedication for Sue ($r = .21$, $p < .01$), but not Bob ($r = .11$, $p =$ n.s.). Dynamism self-perceptions significantly predicted ratings of dynamism for Bob ($r = .16$, $p < .01$) and Sue ($r = .22$, $p < .01$).

Hypothesis III was also tested with bivariate correlations. For Hypothesis III, the correlations between the rating of leadership characteristics and the leadership prototype factors were examined. In support of Hypothesis III, sensitivity leadership prototype was significantly correlated with ratings of sensitivity for both Bob ($r = .27$, $p < .01$) and Sue ($r = .19$, $p < .01$). Similarly, intelligence leadership prototype significantly predicted ratings of intelligence for Bob ($r = .29$, $p < .01$) and Sue ($r = .26$, $p < .01$). In addition, dedication leadership prototype was significantly related to dedication evaluations for Bob ($r = .19$, $p < .01$) and Sue ($r = .28$, $p < .01$). Consistent with the previous findings, dynamism leadership prototype significantly predicted ratings of dynamism for Bob ($r = .30$, $p < .01$) and Sue ($r = .37$, $p < .01$). The results provide evidence that leadership prototypes significantly influence ratings of leadership characteristics of others.

Hypothesis IV proposed that leadership prototype would mediate the relationship between self-perception of leadership traits and leadership characteristics of Bob and Sue. To test for mediation, a relationship between the independent variable and mediator variable had to be established as well as a relationship between the independent variable and dependent variable (Baron & Kenny, 1986). The results of Hypothesis I demonstrated a relationship between self-perception of leadership traits (i.e., independent variables) and leadership prototype (i.e., mediating variables). The findings from Hypothesis II provide support for the relationship between the self-perception of leadership traits and ratings of leadership characteristics (i.e., dependent variables) for Bob and Sue. Since the necessary conditions were met, a mediations analysis was then performed. Following the recommendations of Baron and Kenny (1986), in the first equation the dependent variable was regressed onto the independent variable. Next, the dependent variable was regressed onto both the independent and mediating variable. According

to Baron and Kenny (1986) support for full mediation is found when the coefficient for the independent variable is either non significant (i.e., full mediation) or is smaller (i.e., partial mediation) in the second equation as compared to the first equation.

To test for evidence of full or partial mediation, as predicted in Hypothesis IV, seven multiple regression analyses were conducted. Three multiple regression analyses were conducted to test if leadership prototype mediated the relationship between self-perceptions and ratings of leadership characteristics for Bob. As can be recalled from the findings from Hypothesis II, dedication leadership prototype did not influence ratings of dedication for Bob; therefore, no mediational analysis was conducted for this relationship.

In the first step, the sensitivity ratings for Bob were regressed onto sensitivity self-perceptions (b = .19, p < .01; 99% confidence interval = ± .15). Next sensitivity ratings for Bob were regressed onto both sensitivity self-perceptions (b = .12, p = n.s.; 99% confidence interval = ± .14) and sensitivity leadership prototype (b = .22, p < .01; 99% confidence interval = ± .16). Support for sensitivity leadership prototype fully mediating the relationship between sensitivity self-perceptions and ratings of sensitivity for Bob was found since the coefficient for sensitivity self-perception was not significant after the second step. The same procedure was followed for testing mediation for intelligence and dynamism. Intelligence ratings for Bob were regressed onto intelligence self-perceptions (b = .17, p < .01; 99% confidence interval = ± .15). Next intelligence ratings for Bob were regressed onto intelligence self-perceptions (b = .06, p = n.s.; 99% confidence interval = ± .16) and intelligence leadership prototype (b = .27, p < .01; 99% confidence interval = ± .15). Dynamism ratings Bob were regressed onto dynamism self-perceptions (b = .16, p = .01; 99% confidence interval = ± .16). Next dynamism ratings for Bob were regressed onto dynamism self-perceptions (b = .02, p = n.s.; 99% confidence interval = ±

.18) and dynamism leadership prototype (b = .29, p < .01; 99% confidence interval = ± .18). The findings from the three regression equations suggest that for Bob, leadership prototype factors (sensitivity, intelligence, dynamism) fully mediated the relationship between self-perception of leadership traits and ratings of leadership characteristics in a leader.

The same procedure for testing mediation was replicated for Sue. Ratings of sensitivity for Sue were regressed onto sensitivity self-perceptions (b = .23, p < .01; 99% confidence interval = ± .15). Next ratings of sensitivity were regressed onto sensitivity self-perceptions (b = .19, p < .01; 99% confidence interval = ± .15) and sensitivity leadership prototype (b = .12, p = .06; 99% confidence interval = ± .16). These findings suggest that the leader prototype only partially mediated the relationship between sensitivity self-perceptions and ratings of sensitivity in a leader. Intelligence was tested next. Ratings of intelligence for Sue were regressed onto intelligence self-perceptions (b = .23 p < .01; 99% confidence interval = ± .15). Next, ratings of intelligence were regressed onto intelligence self-perceptions (b = .15, p = n.s.; 99% confidence interval = ± .15) and intelligence leadership prototype (b = .20, p < .01; 99% confidence interval = ± .16). As with the findings for Bob, intelligence leadership prototype fully mediated the relationship between intelligence self-perceptions and ratings of intelligence for Sue. Dedication ratings for the female leader were regressed onto dedication self-perceptions (b = .21, p < .01; 99% confidence interval = ± .15). Next, dedication ratings were regressed onto both dedication self-perceptions (b = .14, p = n.s.; 99% confidence interval = ± .16) and dedication leadership prototype (b = .23 p < .01; 99% confidence interval = ± .15). Again, these results suggest that leadership prototype mediated the relationship between self-perceptions and evaluations of a leader. Finally, ratings of dynamism for Sue were regressed onto dynamism self-perceptions (b = .21, p < .01; 99% confidence interval = ± .15). Next, ratings of dynamism Sue were regressed

onto self-perceptions (b = .05, p = n.s.; 99% confidence interval = ± .15) and dynamism leadership prototype (b = .35, p < .01; 99% confidence interval = ± .15). Consistent with previous findings, leadership prototype ratings fully mediated the relationship between self-perceptions and ratings of dynamism in a leader. In general the findings from the mediational analyses suggest that leadership prototype fully accounts for the relationship between self-perceptions and leadership characteristic ratings in a leader.

To test for Hypotheses V and VI, a profile similarity or matching statistic between leadership prototypes and the ratings of leadership characteristics of Bob and the ratings of leadership characteristics for Sue was used. The *D* profile similarity index (Osgood & Suci, 1952) was used. The *D* profile similarity index represents the Euclidean distance between two scales in k-dimensional space. It is calculated as the square root of the squared sum of the deviations across the k elements. Although this statistic is widely used as a measure of profile similarity (e.g., Sparrow, 1989, Vancouver & Schmitt, 1991, Wexley & Pulakos, 1983) and has proven to be one of the most accurate profile similarity measures (Carroll & Field, 1974), it has also been widely criticized (e.g., Cronbach & Glaser, 1953, Edwards, 1993). Much of the criticism of the measure has centered on the fact that it captures only linear similarities, which might place an overly restrictive set of constraints on the possible profile similarities captured. In order to address this possibility Edwards (1993) recommended testing for nonlinear, (i.e., higher order) relationships using polynomial regression as either an alternative profile approach or as a pre-test of the conditions necessary for using the *D* statistic.

Following these recommendations, a series of polynomial regressions were performed. The measures of leadership emergence and effectiveness (for Bob and Sue separately) were regressed on to the set of four measures of leadership characteristics and the four measures of

leader prototype (in the first step) and then the square of each of those eight measures and the two-way interaction terms within the four leadership prototype factors and the ratings of the four leadership characteristics for either Bob or Sue, in the second step looking for significant incremental increase in R^2 after the first step. No evidence of this was found when predicting either target actors' (Bob or Sue's) leadership emergence or leadership effectiveness ratings. As such, the constraint of linear similarity was shown to be consistent with the data. Given these findings, the use of the D statistic was deemed appropriate for this data and was used to test predictions regarding profile similarity. Two *D* statistics were created. The first *D* statistics represented the profile similarity between leadership prototypes and the ratings of leadership characteristics (i.e., sensitivity, intelligence, dedication, & dynamism) for Bob. The second *D* statistic represented the similarity between leadership prototypes and the ratings of leadership characteristics for Sue. As the *D* statistic is a measure of deviation scores across categories, a smaller value on *D* indicates a better match between leadership prototypes and perceived Bob/Sue leader characteristics.

To test Hypothesis V then, a regression analysis was performed where in step one, leadership emergence ratings for Bob were regressed onto the *D* statistic for the match between leadership prototype and ratings of leadership characteristics for Bob (b = -.57, p < .01) and self-leadership impression scores (b = .06, p = n.s.). In step two, leadership emergence ratings for Bob were regressed onto the interaction variable between the *D* statistic and self-leadership impression scores (b = -.11, p = n.s.). The same set of procedures was conducted using the ratings for Sue. Specifically, leadership emergence ratings for Sue were regressed onto the *D* statistic for the match between leadership prototype and ratings of leadership characteristics for Sue (b = -.64, p < .01) and the self-leadership impression scores (b = .07, p = n.s.). In step two,

leadership emergence ratings for Sue were regressed onto the interaction variable between the *D* statistic and self-leadership impression (b = -.40, p = n.s.). The results for both leaders indicate that self-leadership impressions did not moderate the relationship between the match of leadership prototype to ratings of leadership characteristics Bob (Sue) and leadership emergence ratings for Bob (Sue). Thus, Hypothesis V was not supported.

Similarly for Hypothesis VI, leadership effectiveness ratings for Bob were regressed onto the *D* static between leadership prototype and ratings of leadership characteristics for Bob (b = -.46, p < .01) and self-leadership impression scores (b = .03, p = n.s.). In the following step, leadership effectiveness scores were regressed onto the interaction between the *D* statistic and self-leadership impression scores (b = -.26, p = n.s.). Likewise, with respect to Sue, leadership effectiveness ratings were regressed onto the *D* statistic between leadership prototype and ratings of leadership characteristics for Sue (b = -.47, p < .01) and self-leadership impression scores (b = .08, p = n.s.). In the following step, leadership effectiveness scores were regressed onto the interaction between the *D* statistic and self-leadership impression scores (b = -.18, p = n.s.). The results from Hypothesis VI demonstrate that self-leadership impressions did not moderate the relationship between the match of leadership prototype to ratings of leadership characteristics for Bob (Sue) nor the leadership effectiveness ratings for Bob (Sue). Therefore, Hypothesis VI was not supported.

Hypothesis VII was tested with an independent group's t-test with leadership prototype sensitivity as the dependent variable and participant gender as the independent variable. Results revealed there were no gender differences in leadership prototype sensitivity ratings (t(375) = 1.39, p = n.s.), thus Hypothesis VII was not supported. Male and female participants held similar leadership prototypes in regard to sensitivity. Hypothesis VIII predicted that gender differences

in leader sensitivity would be explained by self-perceptions. Since, there was no difference in leadership sensitivity; Hypothesis VIII could not be tested.

Hypothesis IX was tested by regressing leadership emergence ratings for Sue onto sensitivity self-perceptions. Sensitivity self-perceptions did not predict leadership emergence scores for Sue (b = -.03, p = n.s.), thus Hypothesis IX was not supported. Hypothesis X was tested by regressing leadership effectiveness ratings for Sue onto sensitivity self-perceptions. Sensitivity self-perceptions did not explain variance in leadership effectiveness for Sue (b = .04, p = n.s.), thus Hypothesis X was not supported.

Additional Analyses

Leadership prototype. Additional analyses were conducted to explore the differences in the ratings of leadership prototype factors. One question of interest was the varying importance (as assessed by the rating data) participants placed on each of the factors of the leadership prototype measure. To test if there were any differences in the factor ratings on the leadership prototype measure, a within-subjects repeated measure ANOVA was conducted. For this analysis, the four primary factors from the leadership prototype measure (i.e., sensitivity, intelligence, dedication, and dynamism) served as the within-subjects factor and the actual rating scores as the dependent measure. This analysis revealed that participants rated the four dimensions significantly different from each other ($F(3, 1128) = 343.88$, $p < .01$). Bonferroni post-hoc tests found that participants rated every dimension significantly different from every other dimension and the .01 level of significance. Participants perceived dedication as most prototypical of a leader, followed by intelligence, dynamism, and sensitivity.

Further analyses were carried out to explore potential participant gender differences in leadership prototype. As can be recalled from the findings of Hypothesis VI, there were no

gender differences in the leadership prototype factor of sensitivity. Independent samples t-test were conducted on the remaining three leadership prototype factors. Analyses revealed that there were no mean differences by gender on these items. Table 8 presents the means and standard deviations of the self-perceptions of leadership traits and leadership prototype dimensions.

Leadership ratings. Since participants rated dedication characteristics as most prototypical of a leader, analyses were conducted to explore if perceptions of dedication for Bob and Sue were related to their emergence and effectiveness ratings. That is, since participants view dedication as most prototypical of a leader, their perceptions of dedication in an actual leader (Bob and Sue) should predict general leadership perceptions. Leadership emergence and effectiveness ratings for Bob were regressed onto ratings of his leadership characteristics (i.e., sensitivity, intelligence, dedication, and dynamism). As can be seen in Tables 9 and 10, ratings of Bob's dedication were the strongest predictors of his leadership emergence (Table 9) and leadership effectiveness ratings (Table 10). Next, leadership emergence and effectiveness ratings for Sue were regressed onto her ratings of her leadership characteristics. Similarly, dedication ratings for Sue were the best predictors of her leadership emergence (Table 11) and effectiveness (Table 12) ratings.

Additional analyses were conducted to explore if participants rated the various factors of leadership characteristics (i.e., sensitivity, intelligence, dedication, and dynamism) within each leader (i.e., Bob and Sue) differently. To test if there were any differences in average ratings of leadership characteristics for Bob, a within-subjects repeated measure ANOVA was conducted. For this analysis, the ratings of the four primary leadership characteristics (i.e., sensitivity, intelligence, dedication, and dynamism) for Bob served as the within-subjects factor and the actual rating scores as the dependent measure. This analysis revealed that participants rated the

four dimensions significantly different from each other ($F(3, 819) = 94.96$, $p < .01$). Mean ratings for Bob across the four factors are presented in Table 13. Bonferroni post-hoc tests were conducted to determine which means differed reliably. As can be seen in Table 13, Bob received the highest ratings for dedication followed by intelligence, which did not differ from each other, but both were significantly higher than dynamism and sensitivity, which also did not differ from each other.

The same analysis was conducted on the ratings of leadership characteristics for Sue. Here again, the ratings of the four primary leadership characteristics for Sue served as the within-subjects factor and the actual rating scores as the dependent measure. This analysis revealed that participants rated the four dimensions significantly different from each other (F (3, 819) = 112.97, $p < .01$). Leadership characteristic means for Sue are also presented in Table 13. Bonferroni post-hoc tests showed that participants rated every characteristic significantly different from every other characteristic. Participants rated Sue highest on dedication followed by intelligence, sensitivity, and dynamism (see Table 13 for means).

Supplemental analyses were also conducted to investigate participant gender differences in perceptions of Bob and Sue. A series of 2 X (2) mixed design ANOVAs were conducted with participant gender serving as the between subjects factor, target actor (Bob and Sue) serving as the within subject factor, and the ratings of leadership characteristics, leadership emergence, and leadership effectiveness serving as the dependent variables. Table 13 presents the means and standard deviations. The ANOVA analyses revealed a target leader main effect for sensitivity (F (1,270) = 11.61, $p < .01$), dedication (F (1, 270) = 18.26 $p < .01$), and leadership effectiveness (F (1,268) = 11.61, $p =. 01$). Specifically, participants rated Sue higher than Bob on factors of sensitivity, dedication, and measure of leadership effectiveness.

Self-Leadership Impression. Additional analyses were conducted to explore if one's own impression of their leadership moderated the relationships between self-perceptions of specific leadership traits (i.e., sensitivity, intelligence, dedication, and dynamism), the leadership prototype factors, and the ratings of the leadership characteristics for Bob and Sue. To examine this possibility, interaction variables were created between each of the self-rated leadership traits (i.e., self-sensitivity, self-intelligence, self-dedication, and self-dynamism) and the self-leadership impression measure (i.e. Self-GLI). To test if participants' leadership impression moderated the relationship between their perception of leadership traits and their leadership prototype, each leadership prototype factor was regressed onto the corresponding self-rated trait (in step 1), the self leadership impression score (in step 1), and the computed interaction variable (in step 2). Evidence of moderation would be shown by the finding of a significant effect of the interaction variable on the dependent variable in step 2. The results suggested that self-leadership impression did moderate the relationship between dynamism self-perceptions and dynamism leadership prototype ($b = 1.0$, $p = .01$). As can be seen in Figure 1, the relationship between dynamism self-perceptions and dynamism leadership prototype were stronger for those who perceived themselves as leader as compared to those who did not. Self-leadership impression did not moderate any other relationship between self-perceptions of leadership traits and the leadership prototype factors. Additionally, self-leadership impression scores did not moderate any of the relationships between leadership prototype factors and ratings of leadership characteristics for Bob and Sue.

Discussion

The primary purpose of the present study was to explore the role of self-perceptions in predicting leadership ratings. Of specific interest was examining if self-perceptions had a direct

influence on the leadership ratings of others or if the effect was mediated through leadership prototypes. Additionally, gender differences in self-perceptions, leadership prototypes, and perceptions of a male and female leader were explored. Based on prior research it was hypothesized that female participants would rate themselves higher on sensitivity and, in turn, they would perceive sensitivity as more prototypical of a leader than male participants. Furthermore, it was predicted that female participants would perceive a female leader more positively than male participants.

Findings & Conclusions

Hypothesis I. Hypothesis I predicted that self-perceptions of leadership traits would be positively correlated with the leadership prototype factors. Support for this prediction was found. Specifically, sensitivity self-perceptions were positively correlated with sensitivity leadership prototype, intelligence self-perceptions were positively related to intelligence leadership prototype, dedication self-perceptions positively predicted dedication leadership prototype and finally, dynamism self-predictions were positively correlated with dynamism leadership prototype. Overall these findings suggest that the more participants possessed each of the traits the more they perceived a leader as possessing the same characteristics. These results are consistent with prior research. Keller (1999) found that ratings of agreeableness predicted leader sensitivity, consciousness predicted leader dedication, and extraversion predicted leader charisma. The findings from this study are somewhat stronger that Keller's findings. Specifically the strength of the relationship between self-perception of traits and leadership prototype factors was stronger in the present study. In the present study the relationships ranged from .32 to .44. The magnitude of Keller's significant correlations was from .14 to .26. The stronger correlations demonstrated in the present study were likely due to using the same instrument for assessing

both self-perceptions and leader prototypes. The pattern of correlations across measures, however, suggests that the increased correlations were not merely the result of increased method similarity, as participants were clearly able to respond differently across the scales depending on what they were rating.

Hypothesis II. Hypothesis II predicted that self-perceptions of leadership traits would be positively related to the ratings of the leadership characteristics in Bob and Sue. This hypothesis was supported. The degree to which participants perceived themselves as possessing leadership traits was correlated with their ratings of the same characteristics in leaders. Specifically, sensitivity self-perceptions positively predicted ratings of sensitivity for both Bob and Sue. Additionally, intelligence self-perceptions and dynamism self-perceptions were positively related to the ratings of intelligence and dynamism for Bob and Sue. Lastly, dedication self-perceptions positively predicted dedication ratings for Sue, but not Bob. It is unclear why dedication self-perceptions were not related to dedication ratings for Bob. However, support was for found for seven out of the eight relationships. These findings are consistent with prior research. Specifically, McElwee et al. (2001) found that participants who perceived themselves as possessing people-oriented traits rated famous leaders (e.g., Martin Luther King, Jr.) as having more people-oriented traits than the goal-oriented participants. Additionally, goal-oriented participants rated leaders as possessing more goal-oriented characteristics than people-oriented participants, however, this effect failed to reach significance. Again, the results from the present study are stronger than prior research. In this instance the stronger findings may be due to breaking down the traits into component factors and the increase in precision by using similar scales.

Hypothesis III. The third hypothesis predicted that leadership prototype factors would be positively related to the ratings of the leadership characteristics for Bob and Sue. Support for this prediction was found. Sensitivity leadership prototype positively predicted the ratings of sensitivity for both Bob and Sue. That is, those participants who rated sensitivity as being prototypical of a leader were more likely to perceive Bob and Sue as sensitive. Similar results were found for the other leadership prototype factors. Intelligence leadership prototype was positively related to intelligence ratings for Bob and Sue. Dedication leadership prototype was correlated with the ratings of dedication in Bob and Sue. Lastly, dynamism leadership prototype positively predicted ratings of dynamism in Bob and Sue. Prior research examining the relationship between leadership prototypes and leadership perceptions has typically defined "perceptions" as either leadership emergence or leadership effectiveness. That is, prior work has focused on global perception of leadership. For example, Cronshaw and Lord (1987) examined how leadership prototypes predicted emergence. This study specifically tested the relationship between prototype and leadership perceptions at the trait level.

Hypothesis IV. Hypothesis IV predicted that leadership prototype factors would mediate the relationship between self-perceptions of leadership traits and the rating of the same leadership characteristics in two leaders (i.e., Hypothesis II). In general, Hypothesis IV was supported. Specifically, intelligence and dynamism leadership prototype factors fully mediated the relationship between self-perceptions of leadership traits and the ratings of the leadership characteristics for both Bob and Sue. Sensitivity leadership prototype fully accounted for the relationship between sensitivity self-perceptions and ratings of sensitivity for Bob. In contrast, sensitivity leadership prototype only partially mediated the relationship between sensitivity self-perceptions and ratings of sensitivity for Sue. Finally, dedication leadership prototype fully

mediated the relationship between dedication self-perceptions and ratings of dedication for Sue. The results of theses findings illuminate the important role of both self-perceptions and leadership prototype factors. These findings suggest that people evaluate leaders by comparing them to their prototype, which is molded by their own self-perceptions of their leadership traits. The importance of leadership prototypes in explaining leadership perceptions has long been documented. However, little work has concentrated on how leadership prototypes are formed. The results of this study revealed that prototypes are constructed, at least in part, by perceptions of one's own leadership traits.

Hypotheses V & VI. Hypothesis V predicted that the degree of similarity between observed leader behaviors and participants' leadership prototypes would predict overall measures of leadership perception, specifically emergence (Hypothesis V) and effectiveness (Hypothesis VI). Additionally, the hypotheses predicted that the above relationship would be moderated self-leadership impressions. The results revealed that the degree to which the target actors' leadership behaviors matched participants' leadership prototype was a strong predictor of leadership emergence and effectiveness. Specifically, Bob and Sue received higher ratings of leadership emergence and effectiveness when participants perceived them as a good match to their leadership prototype. However, these findings were not moderated by self-leadership impressions. This may be due to small variance on the measures of self-leadership impressions. As can be seen in the Tables 8 and 13 the variance for self-leadership impressions[4] is smaller that the variance for Bob and Sue on leadership emergence.

An important addition of this study is that it measured leadership characteristics of the target leaders. Much of the prior research examining the relationship between leadership

[4] As can be recalled, self-leadership impressions were measured with a modified version of the GLI. The standard GLI served as the measure of leadership emergence for Bob and Sue.

prototypes and ratings of leadership effectiveness did not assess participants' perception of leaders at the specific trait level. For example, Lord et al. (1984), had participants read a vignette that included a leader engaging in either prototypical leadership behaviors, neutral behaviors, or anti-prototypical behaviors. After reading the vignettes, participants rated the leader on effectiveness. The leadership behaviors contained in the vignettes were reflective of leadership characteristics. However, it was never assessed if participants perceived the leader as possessing those prototypical characteristics. By assessing and measuring both participants' leadership prototype and perceptions of the same leadership characteristics in a leader, it was possible to assess the degree to which participants actually perceived the target leader as prototypical. Also, by measuring leadership characteristics at the trait level of the target leader, information was gained as to which prototypical leadership characteristics (e.g., dedication) have the strongest relationship with perceptions of leadership emergence and effectiveness.

Hypothesis VII. Hypothesis VII predicted that there would be gender differences in sensitivity leadership prototype. Specifically, it was believed that males would rate sensitivity lower in regards to leadership prototypicality than females. However, this hypothesis was not supported. Male and females rated the importance of sensitivity for a leader similarly. In general, this finding is inconsistent with prior literature. Epitropaki & Martin (2004) found that female participants rated sensitivity as more prototypical of a leader than male participants. Additionally, the conclusions from the think manager – think male literature suggests that males perceive leaders possessing mostly masculine traits. However, it should be noted that Offermann et al. (1994) did not find gender differences in ratings of leader sensitivity. Additionally, a recent study by Dorio and Borman (2007) found that male and female students perceived managers similarity. The lack of gender difference in leadership sensitivity in the present study may be, in

part, explained by sample differences. Offermann et al. (1994), Dorio & Borman (2007), and this study had a predominately student populated sample. In contrast, Epitropaki & Martin (2004) validated their leadership prototype measure on an employed adult sample. However, in the present study neither age nor prior years of work experience were related to sensitivity leadership prototype. Additionally, many of the studies in think manager-think male literature used employed managers as their samples. Since leadership prototypes are formed, at least in part by self-perceptions, the lack of gender differences in sensitivity leadership prototype may be due to women perceiving themselves as less sensitive or males perceiving themselves as more sensitive. Consistent with this proposition, there were no gender differences on sensitivity self-perceptions.

Hypothesis VIII. Hypothesis VIII predicted that gender differences in sensitivity self-perceptions would explain differences sensitivity leadership prototype. However, since there were no differences in sensitivity leadership prototype, this hypothesis could not be tested. Furthermore, as just stated, there were no gender differences in sensitivity leadership prototype. In fact, there were no gender differences on any of the leadership prototype factors. This finding suggests that men and women perceive a leader quite similarly.

Hypotheses IX & X. Hypotheses IX and X predicted that sensitivity self-perceptions would be positively related to leadership emergence and leadership effectiveness for the female leader, Sue. These hypotheses were not supported. Sensitivity self-perceptions were not correlated with ratings of emergence and effectiveness for Sue. The thought behind these hypotheses was the belief that participants high in sensitivity would desire a more sensitive leader. Additionally, it was believed that participants would perceive Sue to be more sensitive, since sensitivity behaviors are considered feminine. Although participants did perceive Sue as being more sensitive than Bob, sensitivity self-perceptions did not predict leadership emergence

and effectiveness ratings for Sue. The pattern of results found in this study supports the view that self-perceptions have their effect on leadership perception through leadership prototypes. That is, self-perceptions relate to leadership prototypes, and it is the match between a leader and participants' leadership prototype that predicts global perceptions of leadership.

Additional Analyses. Additional analyses revealed some interesting findings. First, analyses were conducted to determine if participants assigned differential importance to the four factors that comprised prototypical leadership. Overall participants rated the dedication factor (i.e., hardworking, dedicated, motivated) as most prototypical of a leader followed by intelligence, dynamism, and sensitivity. This finding is analogous with previous research in implicit leadership theories. In the Lord et al. (1984) study, participants rated the characteristic "determined" as being highly prototypical of a leader. Additionally, "determined" had a high family resemblance coefficient. In studying implicit leadership theories, Kenney et al. (1996) found dedication as highly prototypical of influencing leaders. In their study, Offermann et al. (1994) labeled one of their leadership prototype factors dedication (i.e., dedicated, motivated, goal-oriented, hardworking). The rank order of the leadership prototypes is also consistent with previous research. In Offermann et al (1994) participants rated dedication as most prototypical of leaders followed by intelligence. Additional, Epitropaki and Martin (2004) found that participants rated dedication as most prototypical of leader. Findings from the present study and previous work suggest that behaviors that reflect "dedication" best discriminate leaders from non-leaders. In the present study, 80% of the sample rated the dedication factor as the most prototypical leadership factor. Additionally ratings of dedication for Bob and Sue were the strongest predictors of their global leadership perceptions (i.e., emergence and effectiveness).

Another finding of interest was the lack of gender differences in leadership prototypes. Male and female participants ascribed similar prototypicality ratings to the prototypical leadership factors. Simply stated, male and female participants in the present study had the same perception of a leader. Of particular note was the lack of gender differences on the sensitivity factor. This implies that male participants have adopted communal qualities in their leadership prototype. Although this finding is inconsistent with some previous research (e.g., Epitropaki & Martin, 2004) it may be suggestive of an underlying change in men's perception of a leader. Recent empirical evidence corroborates the findings from the present study. Specifically, Dorio & Borman (2007) had participants rate "women," "men," and "successful male managers" on the Schein Descriptive Index as described prior. Dorio & Borman (2007) found no significant difference in the ratings of "men" and "successful managers" and "women" and "successful managers" for *both* male and female raters. That is, male and females perceived a successful manager similarly and also did not gender type the managerial role. The findings from Dorio & Borman (2007) and the present study suggest that men no longer have a strong association between "being male" and "being a leader."

Another noteworthy finding from this study is that participants perceived the female leader, Sue as possessing more sensitivity and dedication, and also perceived her as more effective than the male leader Bob. These results are especially interesting given that across the tapes, Bob and Sue engaged in the same number of sensitivity and dedication behaviors. Some of the participants did note, anecdotally, that Bob seemed insincere or certainly less sincere than Sue. This anecdotal observation was borne out in their ratings. It may be that participants had difficulty recognizing or accepting feminine behaviors from a male leader. Alternatively, this finding may be that Bob's character seemed less believable to participants. This possibility

should be explicitly assessed in future studies that use these tapes. Due to the strong relationship discussed above between ratings of dedication and global perceptions of leadership, it was not surprising that Sue was rated higher on leadership effectiveness than Bob given that participants had rated her higher on dedication. The fact that both male and females perceived her as more effective than Bob provides further support for the conjecture that males are no longer gender-typing the leadership role. This finding combined with the results from the leadership prototype data suggests that men are becoming more accepting of a female leader.

Contributions

This study makes many contributions to the field of leadership. Most importantly, this study is the first to measure simultaneously self-perceptions, leadership prototypes, and leadership perceptions of actual leaders. Prior work has examined each of these variables separately. Studying these related constructs in isolation does not afford the ability to examine possible mediation hypotheses, which were shown to be relevant in the present study. Furthermore, the findings from the present study provide more insight into how leadership prototypes are formed. When discussing leadership prototypes, most researchers simply say "leadership prototypes are formed through individuals' experiences with leaders." This ambiguous statement offers little clarity to the creation of prototypes. Although experiences with leaders may play a vital role in the construction of leadership prototypes, the findings from the present study suggest that self-perceptions of one's own leadership traits also contribute to leadership prototypes. The results of the present study also suggest that the effect of self-perceptions operates at the trait level and can be and is different across different traits.

A second contribution of this study is that of examining both specific leadership characteristics and global perception of leaders. In the present study, participants evaluated the

leaders on sensitivity, intelligence, dedication, and dynamism as well as leadership emergence and leadership effectiveness. Many of the published studies examining leadership prototypes have not assessed the specific leadership characteristics of the leaders, but rather have focused on global perceptions of the leader. By measuring specific leadership characteristics a profile similarity index between the leader and participants' leadership prototype could be established. The creations of a profile similarity index afforded a better test of the claim that leaders who match participants leadership prototype would be evaluated more positively than leaders who do not. In the present study it was found that the degree to which Bob and Sue matched participants' leadership prototype strongly influenced the ratings of leadership emergence and leadership effectiveness. The match between the leaders' and participants' leadership prototype accounted for 30-40% of the variance in leadership emergence ratings and approximately 21 % of the variance in leadership effectiveness ratings.

A third contribution of this study is the design employed. Participants rated the actual people they observed in the vignettes where leadership behaviors could be assessed directly by participants rather than through simple statements about a leader. For example, McElwee et al. (2001) had participants read a statement of a person that included three characteristics of leadership and asked them to indicate the degree to which the person was a good leader. By viewing and evaluating real leaders, the findings may better translate to the field. Also, it was beneficial to have participants evaluate both a male and female leader who each engaged in the same number of prototypical behaviors. The ambiguity surrounding leadership afforded a better condition to examine fully the effects of self-perceptions and leadership prototypes. If the perception of leadership had been clear, prototypes and self-perceptions would have likely had a smaller contribution. Another contribution of the study is the use of the same instrument to

measure self-perceptions of leadership traits, leadership prototypes, and leadership characteristics in a leader. Employing the same measure for each of these constructs allows for a more accurate assessment of the profile similarity between self and leadership prototype and leadership prototype and rating of leadership characteristics for Bob and Sue. Additionally, the findings from this study provide evidence that participants can use same scale to distinguish effectively between constructs.

Limitations

One possible limitation to this study might be the nature of the sample. The majority of the sample was undergraduate students. Although students have had experiences with leaders by the time they have reached college, they are not yet done growing and maturing. Since college is a time for maturation, it is possible that students would perceive themselves differently upon graduation and, hence, perceive leaders differently. Despite such developmental changes, it is anticipated that the general results (i.e., self-perceptions influencing leadership prototypes which, in turn, affect leadership perception) would still hold true. Indeed, the sample included a number of adult participant who are no longer in school. The pattern of results was the same for the adult population. However, the adult population may not have been be completely representative of the general adult population as the participants were primarily employed in higher education settings. Future work should replicate these results across a wider variety of full-time employees.

Another potential limitation to this study was having participants view the vignettes on-line. Although participants had to play the entire video before being able to rate Bob and Sue, there was no way to control the participants' attention to the video. Although the rating data clearly suggest that participants were able to differentiate Bob and Sue in their ratings, which is suggestive that they paid some attention to the video, however, it is unknown how attentive they

were over all. It is possible that in a laboratory setting, participants might be more attentive with an experimenter in the room. Such a possibility should be investigated in future work.

Lastly, it should be noted that in discussing the results it was suggested that self-perceptions influence leadership prototypes, which in turn predict leadership perceptions. Since this is a cross sectional correlational study it cannot be concluded with certainty that self-perceptions are the cause of leadership prototypes and not the other way around. However, it is likely that individuals develop a sense of their traits and characteristics before they form leader prototypes (Lewis, 1990).

Concluding Thoughts

The findings from the study suggest that self-perceptions are related to leadership perceptions. Specifically, how individuals view themselves is a component of leadership prototypes. In general, the results of this study imply that participants do want a leader that is analogous to them. The findings further demonstrate the crucial role that leadership prototypes play in forming impressions of a leader. Consistent with prior research, a better match between a leader and an individual's leadership prototype will result in a more favorable evaluation of a leader. Additionally, the results from this study suggest that men and women perceive a leader not only similarly but also as possessing some feminine traits. Only time will tell if this finding will translate to more leadership opportunities for females.

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Table 1.

Number of Prototypical Leadership Behaviors by Manager and Vignette Number for the Female Emergent Condition

Vignette	1	2	3	4	5	6	7	8	9
Bob	12	12	12	12	11	9	7	5	3
Sue	3	5	7	9	12	12	12	12	12
Dave	3	3	3	3	3	3	3	3	3
Libby	3	3	3	3	3	3	3	3	3

Table 2.

Number of Prototypical Leadership Behaviors by Manager and Vignette Number for the Male Emergent Condition

Vignette	1	2	3	4	5	6	7	8	9
Bob	3	5	7	9	12	12	12	12	12
Sue	12	12	12	12	11	9	7	5	3
Dave	3	3	3	3	3	3	3	3	3
Libby	3	3	3	3	3	3	3	3	3

Table 3.

Prototypical Leadership Behavior by Dimension.

Prototypical Leadership Behaviors	Sensitivity	Intelligence	Dedication	Dynamism
Is appreciative.	*			
Looks out for the personal welfare of other group members.	*			
Praising.	*			
Being well informed.		*		
Seeking information.		*		
Providing information.		*		
Decides what shall be done and how it shall be done.			*	
Encourages participation.			*	
Acts without consulting others.				*
Is confident.				*
Pressures others to perform.				*
Emphasizes the relative authority of others.				*
Adaptable.				*

Table 4.

Frequency Counts of Leadership Behaviors by Tape and Leader

	Tape 1		Tape 2	
	Bob	Sue	Bob	Sue
Sensitivity	16	10	10	16
Intelligence	11	12	12	11
Dedication	19	22	22	19
Dynamism	5	8	8	5

Table 5.
Intercorrelations between Independent and Dependent Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1. Sex	-	.13	-.18	.02	-.15	-.03	-.02	.02	-.03	-.12	-.23	.00	-.07	-.11	-.04	.04	-.14	-.02	-.12	-.17	.04	.04
Self Leadership Traits																						
2. Sensitivity		-	.35	.47	.42	.23	.37	.35	.35	.35	.19	.24	.28	.21	.17	.18	.23	.27	.23	.25	.12	.09
3. Intelligence			-	.49	.51	.36	.15	.33	.30	.37	.18	.17	.13	.15	.06	.05	.23	.23	.19	.15	.11	.12
4. Dedication				-	.46	.38	.14	.17	.34	.23	.04	.06	.11	.06	.01	.00	.15	.15	.21	.17	.14	.08
5 Dynamism					-	.45	.24	.27	.28	.44	.17	.10	.12	.16	-.02	.00	.21	.20	.18	.22	.00	.06
6. Self-Leadership Impression						-	.08	.09	.18	.15	.00	-.05	.04	-.06	-.01	-.03	.04	.05	.10	.03	.03	.05
Leadership Prototype																						
7. Sensitivity							-	.48	.34	.35	.27	.20	.23	.22	.17	.15	.19	.07	.11	.13	-.03	.05
8. Intelligence								-	.60	.56	.17	.29	.16	.17	.10	.04	.19	.26	.20	.16	.09	.06
9. Dedication									-	.57	.07	.20	.19	.12	.15	.09	.19	.22	.28	.11	.12	.07
10. Dynamism										-	.24	.27	.21	.30	.10	.12	.32	.33	.36	.37	.12	.17
Leadership Characteristics-Bob																						
11. Sensitivity											-	.70	.69	.64	.48	.46	.22	.26	.27	.40	.12	.10
12. Intelligence												-	.80	.75	.63	.52	.28	.44	.36	.39	.16	.12
13. Dedication													-	.70	.64	.55	.26	.32	.33	.28	.14	.12
14. Dynamism														-	.56	.44	.27	.31	.24	.43	.03	.04
15. Leadership Emergence-Bob															-	.62	.11	.16	.14	.10	.10	.07
16. Leadership Effectiveness-Bob																-	.11	.13	.16	.11	.10	.38
Leadership Characteristics-Sue																						
17. Sensitivity																	-	.64	.59	.52	.43	.40
18. Intelligence																		-	.83	.74	.66	.53
19. Dedication																			-	.72	.69	.53
20. Dynamism																				-	.57	.41
21. Leadership Emergence-Sue																						.59
22. Leadership Effectiveness-Sue																					.	-

Note. All correlations .15 and above are significant at the .01 level. Minimum sample size between correlations is 272.

Table 6.
Intercorrelations between Independent and Dependent Variables for the Student Sample.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1. Sex	-	.13	-.19	.12	-.22	-.00	-.11	-.04	-.10	-.14	-.25	-.01	-.04	-.08	-.02	.02	-.14	-.03	-.07	-.16	.05	.06
Self Leadership Traits																						
2. Sensitivity		-	.33	.43	.33	.18	.38	.38	.38	.40	.19	.22	.25	.22	.15	.18	.22	.27	.21	.27	.14	.09
3. Intelligence			-	.43	.53	.39	.20	.43	.32	.39	.19	.16	.12	.13	.00	.05	.22	.21	.19	.13	.07	.07
4. Dedication				-	.41	.39	.15	.21	.35	.20	.05	.08	.12	.02	-.00	.03	.12	.14	.21	.14	.14	.08
5 Dynamism					-	.42	.21	.28	.24	.45	.18	.10	.12	.13	-.03	.02	.18	.18	.18	.20	-.04	.07
6. Self-Leadership Impression						-	.08	.09	.17	.14	-.01	-.07	.02	-.09	-.04	-.04	.03	.04	.10	.01	.02	.05
Leadership Prototype																						
7. Sensitivity							-	.44	.31	.40	.27	.22	.24	.24	.17	.15	.20	.12	.11	.15	.00	.06
8. Intelligence								-	.62	.59	.22	.33	.21	.22	.12	.06	.20	.30	.20	.20	.15	.07
9. Dedication									-	.57	.10	.25	.24	.14	.18	.11	.18	.23	.28	.13	.11	.05
10. Dynamism										-	.28	.32	.24	.29	.12	.15	.30	.33	.36	.40	.12	.18
Leadership Characteristics-Bob																						
11. Sensitivity											-	.70	.68	.66	.45	.42	.25	.27	.27	.41	.12	.09
12. Intelligence												-	.79	.75	.62	.49	.29	.44	.36	.38	.16	.09
13. Dedication													-	.70	.62	.49	.26	.29	.33	.26	.11	.08
14. Dynamism														-	.57	.42	.26	.28	.24	.40	.00	.02
15. Leadership Emergence-Bob															-	.62	.07	.12	.14	.07	.05	.03
16. Leadership Effectiveness-Bob																-	.07	.09	.16	.08	.05	.37
Leadership Characteristics-Sue																						
17. Sensitivity																	-	.64	.59	.52	.40	.39
18. Intelligence																		-	.83	.74	.69	.53
19. Dedication																			-	.73	.70	.53
20. Dynamism																				-	.59	.42
21. Leadership Emergence-Sue																					-	.61
22. Leadership Effectiveness-Sue																						-

Note. All correlations .17 and above are significant at the .01 level. Minimum sample size between correlations is 221.

Table 7.
Intercorrelations between Independent and Dependent Variables for the Employed Adult Sample

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1. Sex	-	.00	-.28	-.21	-.10	-.11	-.02	.06	-.14	-.04	-.14	-.13	-.22	-.17	-.22	-.04	-.07	-.13	-.20	-.16	-.09	-.13
Self Leadership Traits																						
2. Sensitivity		-	.33	.57	.58	.34	.23	.22	.22	.21	.28	.38	.43	.28	.13	.20	.27	.33	.26	.25	.06	.03
3. Intelligence			-	.57	.46	.24	-.00	.04	.19	.24	.23	.37	.34	.33	.38	.25	.18	.32	.19	.25	.30	.32
4. Dedication				-	.61	.38	.13	.19	.37	.29	.04	.15	.19	.24	-.05	-.05	.22	.27	.30	.32	.04	.06
5 Dynamism					-	.56	.28	.22	.33	.39	.18	.14	.20	.37	-.06	-.12	.28	.30	.29	.30	.10	-.08
6. Self-Leadership Impression						-	.03	.04	.14	.17	.19	.09	.16	.23	.04	.02	.18	.19	.31	.23	.19	.05
Leadership Prototype																						
7. Sensitivity							-	.55	.36	.23	.29	.13	.20	.24	.02	.08	.21	-.06	.07	.12	-.19	-.07
8. Intelligence								-	.47	.53	.14	.20	.00	.21	-.06	-.14	.17	.04	-.09	.09	-.26	-.19
9. Dedication									-	.55	.03	.07	.15	.19	-.04	.16	.06	-.07	-.00	-.10	.02	-.10
10. Dynamism										-	.13	.17	.21	.45	.02	.08	.36	.26	.26	.20	-.01	-.05
Leadership Characteristics-Bob																						
11. Sensitivity											-	.68	.70	.50	.60	.46	.29	.40	.31	.32	.15	.14
12. Intelligence												-	.81	.76	.63	.57	.40	.68	.37	.55	.22	.29
13. Dedication													-	.72	.69	.64	.48	.62	.54	.51	.38	.36
14. Dynamism														-	.48	.44	.40	.62	.45	.66	.19	.15
15. Leadership Emergence-Bob															-	.65	.27	.38	.28	.29	.38	.27
16. Leadership Effectiveness-Bob																-	.34	.43	.35	.39	.52	.62
Leadership Characteristics-Sue																						
17. Sensitivity																	-	.63	.66	.54	.51	.36
18. Intelligence																		-	.70	.74	.50	.40
19. Dedication																			-	.71	.68	.38
20. Dynamism																				-	.57	.37
21. Leadership Emergence-Sue																						.51
22. Leadership Effectiveness-Sue																					.	-

Note. All correlations .28 and above are significant at the .05 level. Minimum sample size between correlations is 46

Table 8.

Means and Standard Deviations of Self-perceptions of Leadership Traits Measure, Self-Leadership Impression and Leadership Prototype.

	Total (n = 377)	Males (n = 152)	Females (n = 225)
Sensitivity self-perceptions	7.17 (.94)	7.06 (.89)	7.24 (.97)
Intelligence self-perceptions*	7.06(.84)	7.28 (.81)	6.92 (.82)
Dedication self-perceptions	7.48 (1.14)	7.44 (1.19)	7.50 (1.10)
Dynamism self-perceptions*	6.25 (1.08)	6.49 (1.03)	6.08 (1.09)
Self-leadership impression	3.83 (.54)	3.84 (.56)	3.81 (.54)
Leadership prototype sensitivity	6.55 (1.28)	6.66 (1.37)	6.47 (1.22)
Leadership prototype intelligence	7.57 (.97)	7.56 (1.11)	7.57 (.86)
Leadership prototype dedication	8.32 (.82)	8.28 (.94)	8.35 (.74)
Leadership prototype dynamism	7.24 (1.05)	7.38 (1.07)	7.13 (1.03)

Note. Values enclosed in parentheses represent standard deviations.

* Significant difference ($p < .01$) between males and females.

Table 9.

Regression Analysis of Leadership Emergence Ratings of Bob onto Ratings of Leadership Characteristics for Bob.

Variable	β	SE β	b	Lower 99% CI	Upper 99% CI	Total R^2
Sensitivity	-.02	.04	-.04	-.22	.14	
Intelligence	.16	.05	.28*	.06	.50	
Dedication	.19	.04	.35*	.14	.56	
Dynamism	.06	.04	.12	-.07	.31	.44

n = 273

* $p < .01$

Table 10.

Regression Analysis of Leadership Effectiveness Ratings of Bob onto Ratings of Leadership Characteristics for Bob.

Variable	β	SE β	b	Lower 99% CI	Upper 99% CI	Total R^2
Sensitivity	.09	.09	.08	-.12	.28	
Intelligence	.28	.13	.21	-.04	.46	
Dedication	.39	.11	.31*	.07	.55	
Dynamism	.02	.11	.00	-.21	.21	.30

n = 271

* $p < .01$

Table 11.

Regression Analysis of Leadership Emergence Ratings of Sue onto Ratings of Leadership Characteristics for Sue.

Variable	β	SE β	b	Lower 99% CI	Upper 99% CI	Total R^2
Sensitivity	-.04	.03	-.08	-.22	.06	
Intelligence	.17	.05	.29*	.07	.51	
Dedication	.22	.04	.43*	.22	.63	
Dynamism	.06	.04	.10	-.07	.27	.52

n = 273

* $p < .01$

Table 12.

Regression Analysis of Leadership Effectiveness Ratings of Sue onto Ratings of Leadership Characteristics for Sue.

Variable	β	SE β	b	Lower 99 % CI	Upper 99% CI	Total R^2
Sensitivity	.08	.08	.07	-.11	.25	
Intelligence	.36	.14	.26*	-.00	.52	
Dedication	.35	.12	.28*	.03	.53	
Dynamism	.02	.10	-.02	-.22,	.18	.29

n = 271

* $p < .01$

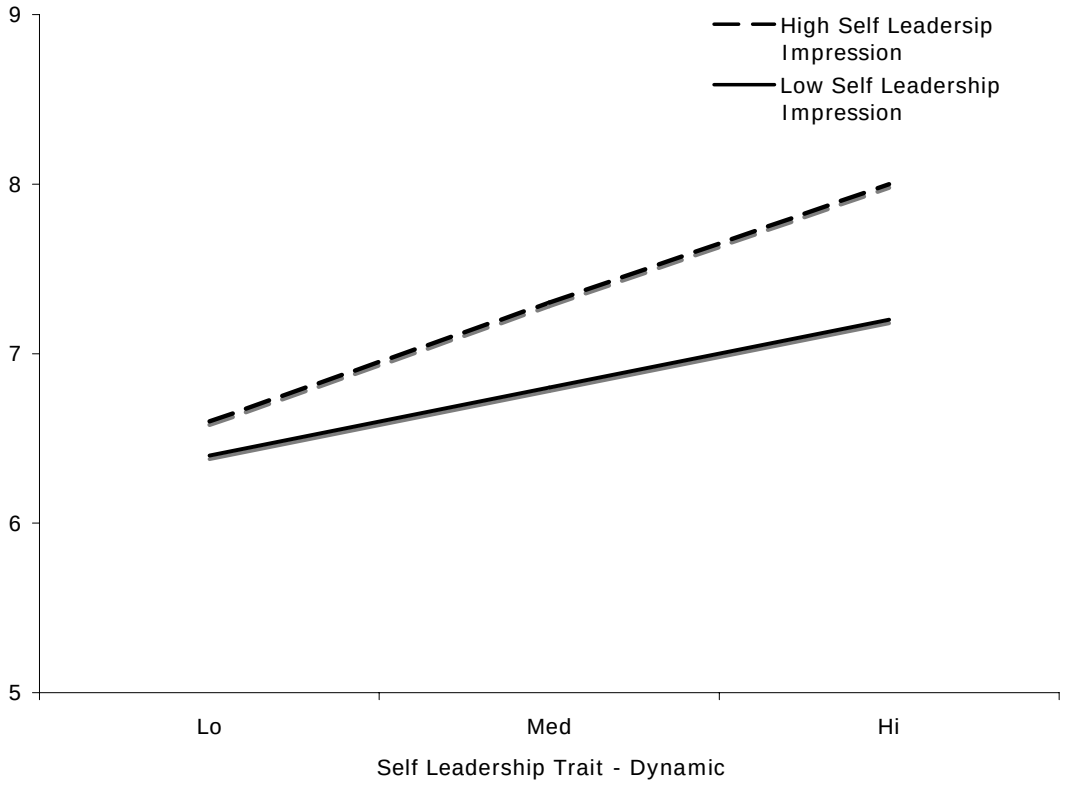
Table 13

Means (with Standard Deviations below) and Pair-Wise Comparisons of Leadership Characteristics for Bob and Sue.

	Measure	1	2	3	4	5	6	7	8	9	10	11	12
1	Sensitivity ratings: Bob	5.57 1.41						*					
2	Intelligence ratings: Bob		6.33 1.25										
3	Dedication ratings: Bob			6.35 1.37						*			
4	Dynamism ratings: Bob				5.62 1.30								
5	Leadership emergence: Bob					3.68 .73							
6	Leadership effectiveness: Bob						6.42 1.74						*
7	Sensitivity ratings: Sue							5.96 1.37					
8	Intelligence ratings: Sue								6.49 1.24				
9	Dedication ratings: Sue									6.75 1.35			
10	Dynamism ratings: Sue										5.70 1.30		
11	Leadership emergence: Sue											3.79 .71	
12	Leadership effectiveness: Sue												6.72 1.67

* Pair significantly differ at the alpha = .01 level.

Figure 1. Regression of Dynamism Leadership Prototype on Dynamism Self-Perceptions as a Function of Self-Leadership Impressions.



Appendix A

Self-perceptions of Leadership Traits

Please rate how descriptive each of the 31 traits presented are of **you** using the scale presented below.

1----------2----------3----------4----------5----------6---------7---------8---------9
Not at all descriptive Extremely descriptive

1. Understanding 1-----2-----3-----4-----5-----6-----7-----8-----9
2. Hardworking 1-----2-----3-----4-----5-----6-----7-----8-----9
3. Warm 1-----2-----3-----4-----5-----6-----7-----8-----9
4. Clever 1-----2-----3-----4-----5-----6-----7-----8-----9
5. Masculine 1-----2-----3-----4-----5-----6-----7-----8-----9
6. Domineering 1-----2-----3-----4-----5-----6-----7-----8-----9
7. Charismatic 1-----2-----3-----4-----5-----6-----7-----8-----9
8. Motivated 1-----2-----3-----4-----5-----6-----7-----8-----9
9. Intelligent 1-----2-----3-----4-----5-----6-----7-----8-----9
10. Pushy 1-----2-----3-----4-----5-----6-----7-----8-----9
11. Loud 1-----2-----3-----4-----5-----6-----7-----8-----9
12. Sincere 1-----2-----3-----4-----5-----6-----7-----8-----9
13. Energetic 1-----2-----3-----4-----5-----6-----7-----8-----9
14. Dedicated 1-----2-----3-----4-----5-----6-----7-----8-----9
15. Manipulative 1-----2-----3-----4-----5-----6-----7-----8-----9
16. Male 1-----2-----3-----4-----5-----6-----7-----8-----9
17. Compassionate 1-----2-----3-----4-----5-----6-----7-----8-----9
18. Strong 1-----2-----3-----4-----5-----6-----7-----8-----9
19. Dynamic 1-----2-----3-----4-----5-----6-----7-----8-----9
20. Helpful 1-----2-----3-----4-----5-----6-----7-----8-----9
21. Dominant 1-----2-----3-----4-----5-----6-----7-----8-----9
22. Wise 1-----2-----3-----4-----5-----6-----7-----8-----9
23. Educated 1-----2-----3-----4-----5-----6-----7-----8-----9
24. Sensitive 1-----2-----3-----4-----5-----6-----7-----8-----9
25. Knowledgeable 1-----2-----3-----4-----5-----6-----7-----8-----9
26. Conceited 1-----2-----3-----4-----5-----6-----7-----8-----9
27. Bold 1-----2-----3-----4-----5-----6-----7-----8-----9
28. Sympathetic 1-----2-----3-----4-----5-----6-----7-----8-----9
29. Intellectual 1-----2-----3-----4-----5-----6-----7-----8-----9
30. Selfish 1-----2-----3-----4-----5-----6-----7-----8-----9
31. Forgiving 1-----2-----3-----4-----5-----6-----7-----8-----9

Appendix B

Leadership Prototype Measure

Please rate how characteristic each of the 31 traits presented are of a business **leader** using the scale presented below.

1----------2----------3----------4----------5----------6---------7---------8---------9
Not at all characteristic Extremely characteristic

1. Understanding 1-----2-----3-----4-----5-----6-----7-----8-----9
2. Hardworking 1-----2-----3-----4-----5-----6-----7-----8-----9
3. Warm 1-----2-----3-----4-----5-----6-----7-----8-----9
4. Clever 1-----2-----3-----4-----5-----6-----7-----8-----9
5. Masculine 1-----2-----3-----4-----5-----6-----7-----8-----9
6. Domineering 1-----2-----3-----4-----5-----6-----7-----8-----9
7. Charismatic 1-----2-----3-----4-----5-----6-----7-----8-----9
8. Motivated 1-----2-----3-----4-----5-----6-----7-----8-----9
9. Intelligent 1-----2-----3-----4-----5-----6-----7-----8-----9
10. Pushy 1-----2-----3-----4-----5-----6-----7-----8-----9
11. Loud 1-----2-----3-----4-----5-----6-----7-----8-----9
12. Sincere 1-----2-----3-----4-----5-----6-----7-----8-----9
13. Energetic 1-----2-----3-----4-----5-----6-----7-----8-----9
14. Dedicated 1-----2-----3-----4-----5-----6-----7-----8-----9
15. Manipulative 1-----2-----3-----4-----5-----6-----7-----8-----9
16. Male 1-----2-----3-----4-----5-----6-----7-----8-----9
17. Compassionate 1-----2-----3-----4-----5-----6-----7-----8-----9
18. Strong 1-----2-----3-----4-----5-----6-----7-----8-----9
19. Dynamic 1-----2-----3-----4-----5-----6-----7-----8-----9
20. Helpful 1-----2-----3-----4-----5-----6-----7-----8-----9
21. Dominant 1-----2-----3-----4-----5-----6-----7-----8-----9
22. Wise 1-----2-----3-----4-----5-----6-----7-----8-----9
23. Educated 1-----2-----3-----4-----5-----6-----7-----8-----9
24. Sensitive 1-----2-----3-----4-----5-----6-----7-----8-----9
25. Knowledgeable 1-----2-----3-----4-----5-----6-----7-----8-----9
26. Conceited 1-----2-----3-----4-----5-----6-----7-----8-----9
27. Bold 1-----2-----3-----4-----5-----6-----7-----8-----9
28. Sympathetic 1-----2-----3-----4-----5-----6-----7-----8-----9
29. Intellectual 1-----2-----3-----4-----5-----6-----7-----8-----9
30. Selfish 1-----2-----3-----4-----5-----6-----7-----8-----9
31. Forgiving 1-----2-----3-----4-----5-----6-----7-----8-----9

Appendix C

Self-Leadership Impression

Please answer the following questions regarding your general behavior when interacting with a group of people (e.g., working on a class project, working in a student organization, leading a sports team).

1. How much did you contribute to the effectiveness of a task?

Extreme Amount	Substantial Amount	Moderate Amount	Very Little	Nothing

2. What degree of influence do you exert in determining the final outcome of a task?

Extreme Amount	Substantial Amount	Moderate Amount	Very Little	Nothing

3. How much leadership do you exhibit?

Extreme Amount	Substantial Amount	Moderate Amount	Very Little	Nothing

4. How much control over the group's activities do you exhibit?

Extreme Amount	Substantial Amount	Moderate Amount	Very Little	Nothing

5. If your group members had to choose a leader for the group, how willing would they be to vote for you as the leader?

Extreme Amount	Substantial Amount	Moderate Amount	Very Little	Nothing

6. How much do you encourage the contributions of the other group members?

Extreme Amount	Substantial Amount	Moderate Amount	Very Little	Nothing

7. How much do you contribute to the discussion in a meaningful way?

Extreme Amount	Substantial Amount	Moderate Amount	Very Little	Nothing

Appendix D

Evaluation of Leadership Characteristics for Bob and Sue

Please assess **Sue (Bob)** on the following leadership traits:

1. Understanding 1-----2-----3-----4-----5-----6-----7-----8-----9
2. Hardworking 1-----2-----3-----4-----5-----6-----7-----8-----9
3. Warm 1-----2-----3-----4-----5-----6-----7-----8-----9
4. Clever 1-----2-----3-----4-----5-----6-----7-----8-----9
5. Masculine 1-----2-----3-----4-----5-----6-----7-----8-----9
6. Domineering 1-----2-----3-----4-----5-----6-----7-----8-----9
7. Charismatic 1-----2-----3-----4-----5-----6-----7-----8-----9
8. Motivated 1-----2-----3-----4-----5-----6-----7-----8-----9
9. Intelligent 1-----2-----3-----4-----5-----6-----7-----8-----9
10. Pushy 1-----2-----3-----4-----5-----6-----7-----8-----9
11. Loud 1-----2-----3-----4-----5-----6-----7-----8-----9
12. Sincere 1-----2-----3-----4-----5-----6-----7-----8-----9
13. Energetic 1-----2-----3-----4-----5-----6-----7-----8-----9
14. Dedicated 1-----2-----3-----4-----5-----6-----7-----8-----9
15. Manipulative 1-----2-----3-----4-----5-----6-----7-----8-----9
16. Male 1-----2-----3-----4-----5-----6-----7-----8-----9
17. Compassionate 1-----2-----3-----4-----5-----6-----7-----8-----9
18. Strong 1-----2-----3-----4-----5-----6-----7-----8-----9
19. Dynamic 1-----2-----3-----4-----5-----6-----7-----8-----9
20. Helpful 1-----2-----3-----4-----5-----6-----7-----8-----9
21. Dominant 1-----2-----3-----4-----5-----6-----7-----8-----9
22. Wise 1-----2-----3-----4-----5-----6-----7-----8-----9
23. Educated 1-----2-----3-----4-----5-----6-----7-----8-----9
24. Sensitive 1-----2-----3-----4-----5-----6-----7-----8-----9
25. Knowledgeable 1-----2-----3-----4-----5-----6-----7-----8-----9
26. Conceited 1-----2-----3-----4-----5-----6-----7-----8-----9
27. Bold 1-----2-----3-----4-----5-----6-----7-----8-----9
28. Sympathetic 1-----2-----3-----4-----5-----6-----7-----8-----9
29. Intellectual 1-----2-----3-----4-----5-----6-----7-----8-----9
30. Selfish 1-----2-----3-----4-----5-----6-----7-----8-----9
31. Forgiving 1-----2-----3-----4-----5-----6-----7-----8-----9

Appendix E

Leadership Emergence

The following questions concern your feelings towards and evaluation of **Sue (Bob)**. Please select the answer which reflects your feelings.

1. How much did Sue (Bob) contribute to the effectiveness of the task?

Extreme Amount	Substantial Amount	Moderate Amount	Very Little	Nothing

2. What degree of influence did Sue (Bob) exert in determining the final outcome of the task?

Extreme Amount	Substantial Amount	Moderate Amount	Very Little	Nothing

3. How much leadership did Sue (Bob) exhibit?

Extreme Amount	Substantial Amount	Moderate Amount	Very Little	Nothing

4. How much control over the group's activities did Sue (Bob) exhibit?

Extreme Amount	Substantial Amount	Moderate Amount	Very Little	Nothing

5. If you had to choose a leader for a new task, how willing would you be to vote for Sue (Bob) as the leader?

Extreme Amount	Substantial Amount	Moderate Amount	Very Little	Nothing

6. How much did Sue (Bob) encourage the contributions of the other group members?

Extreme Amount	Substantial Amount	Moderate Amount	Very Little	Nothing

7. How much did Sue (Bob) contribute to the discussion in a meaningful way?

Extreme Amount	Substantial Amount	Moderate Amount	Very Little	Nothing