AN INVESTIGATION OF HOW THE INTERSECTION OF ETHNICITY AND GENDER INFLUENCES LEADERSHIP PERCEPTIONS

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The path to our destination is not always a straight one. We go down the wrong road, we get lost, we turn back. Maybe it doesn’t matter which road we embark on. Maybe what matters is that we embark.

-- Barbara Hall
ABSTRACT OF THE THESIS

An Investigation of How the Intersection of Ethnicity and Gender Influences Leadership Perceptions

by

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This study investigated individual differences in perceptions of leadership. According to research, people hold prototypes for what a typical business leader is and the qualities they should and should not possess. This prototype is shaped by an individual’s perceptions of and experiences with different business leaders and can vary from one individual to the next. Despite the growing urgency for diversity within work environments and the fact that women comprise more than half of the workforce, when considering the business leader, White males have been found to be most prototypic. This finding has been supported in multiple studies; however, the literature has primarily focused on comparisons between White and African American men, while only recently beginning to expand to include comparisons with women and other ethnic minorities. This study builds upon previous research by examining individual’s leadership perceptions of six targets: White, African American, and Asian American men and women, with a particular interest in the combined effects of both ethnicity and gender. Using the description and performance summary of a fictitious employee and company, individuals measured the leadership potential of the six targets with the manipulations of ethnicity, gender, and performance (having increased or decreased). Furthermore, most research on the topic has relied on self-report and survey measures to assess perceptions of leadership ability. There is evidence that we have automatic processes occurring outside of conscious awareness that activate held stereotypes and that are not available to be accessed through introspection. Therefore, this study also incorporated the use of implicit measures, specifically, the single category implicit association test (SC-IAT), to discover individual’s associations between the six targets and the status of “business leader.” Implicit measures have been found valuable in limiting the ability to “fake” or give socially desirable responses, giving the measure the ability to reveal true associations people hold consciously or unconsciously. Participants included 326 university students, each completing both the personnel summary measure, for which they evaluated one target’s leadership potential, and the SC-IAT, which measured the association of each of the six targets with the status of “business leader” and “business subordinate.” A between-subjects ANOVA was used to analyze differences in perceptions of leadership potential and a within-subjects ANOVA was used to analyze differences in associations of the six targets with the status of business leader versus business subordinate. Findings indicated some mixed results between the two measures. The personnel summary measure indicated no significant differences between ethnic or gender groups, but did find that targets described as having increased performance were evaluated more favorably than those described as having decreased...
performance. However, The SC-IAT found a significant difference in ethnicity in that both Whites and African Americans were more closely associated to the status of business leader than Asian Americans, and males more closely associated than females. This study contributes to the current research literature by examining multiple minority groups and women, including minority women, and thus exploring theories of the intersectionality of ethnicity and gender with regard to perceptions of business leaders.
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INTRODUCTION

Organizations in the U.S. today are making advances to increase diversity within their companies, and to give more opportunities to women, ethnic minorities, and members of other historically disadvantaged groups. Although these advances toward equality are undoubtedly beneficial to these disadvantaged social groups and the organizations they serve, still, there is room for progress, particularly in high-level positions of leadership.

Discrimination and biases continue to be an issue in the workplace today and what is known as “the glass ceiling,” for example, has been credited for making it difficult to move past these issues. The glass ceiling is a theoretical barrier preventing women from attaining the more prestigious and exclusive leadership positions. Although this term is most commonly applied to women, it is also appropriate when discussing minorities and members of other disadvantaged groups within the workforce. Both women and minorities are striving to make advances within organizations and move beyond the glass ceiling to the more exclusive positions of leadership. The removal of the glass ceiling will help create equal opportunities for job seekers, give organizations the opportunity to fulfill jobs with the most qualified candidates by increasing the pool of such candidates, and also increase group diversity, which has been associated with greater group productivity and greater organizational financial success (Catalyst, 2004).

Identifying an acceptable number of qualified women or ethnic minorities does not appear to be the reason for the imbalance in representation among the highest levels of leadership positions. For example, women currently hold more than half of all management and professional positions and make up nearly half of the U.S. labor force, yet are still underrepresented in the most prestigious of America’s corporations, holding less than 8% of Fortune 500 highest titles, less than 2% of Fortune 500 CEO positions, and just over 5% of Fortune 500 top earners (Catalyst, 2005). There is a similar discrepancy when looking at ethnic differences. With more exclusive leadership positions, minority representation begins to decline. Whites represent 81.3% of the total U.S. labor force, while African Americans represent 11.6% and Asian Americans represent 4.7%. Of all management occupations, Whites make up 87.3%, while African Americans and Asian Americans hold 6.3% and 4.6%,
respectively. When observing all chief executive positions, Whites comprise of 92.7%, while African and Asian Americans represent 2.7% and 3.0%, respectively (U.S. Bureau of Labor Statistics, 2011).

Research has shown that ethnic minorities and women may be at a disadvantage because of biases in individuals’ perceptions of leaders and leadership ability (Knight, Hebl, Foster, & Mannix, 2003; Rosette, Leonardelli, & Phillips, 2008; Schein, 1973, 1975; Sy et al., 2010). Because these biases can affect career status and advancement in the form of less favorable performance evaluations and assessments of leadership potential, it is important to be aware of and understand them so that they can be overcome. Research in this area has largely attributed these biases in appraisals to discrimination, prejudice, stereotyping, and individuals’ beliefs about social roles. These factors undoubtedly contribute to the disparities among leadership positions in the workforce, but it is also important to understand how individuals process and categorize information in order to understand why the disparities exist and how to decrease them.

The present study looks at the effect of leadership prototypes on ethnic minorities and women. A review of perceptions of ethnic minorities and leadership is followed by a review of women and leadership. The present study also explores how implicit measures may serve as a benefit to revealing biases in perceptions of a leader. Specifically, the single category implicit association test (SC-IAT), a measure adapted from the implicit association test, is used to evaluate perceptions of a leader by ethnicity and gender. This study seeks to add to the literature concerning leadership by examining the independent and interactive effects ethnicity and gender have on perceptions of a leader.

LEADERSHIP prototype

Before reviewing research providing evidence for ethnicity- and gender-based biases in leadership potential and effectiveness, it is essential to understand how people store, organize, and retrieve information collected about others. Leadership categorization theory (Lord, Foti, & DeVader, 1984) relies on the assumption that people have implicit leadership theories that describe the basic characteristics and qualities that a prototypical leader would possess. According to leadership categorization theory, individuals collect and store information concerning leaders based on the leaders that they have experienced and been
exposed to, and these experiences create a prototype of what a typical leader is to that individual. Lord, Brown, Harvey, and Hall (2001) describe leadership perception as a two-stage matching process in which an individual activates relevant exemplars of what a leader is and then compares the target to the prototype. Thus, once activated, those more closely matching the characteristics of the prototype will be perceived more favorably. White males primarily dominate leadership positions in the U.S. workforce, making it logical to assume that many if not most of those one would consider being a successful business leader, or refer to as such, would be a White male. Research has attributed the favorable ratings given to White males to the possibility that they most closely resemble individuals’ prototype of a leader (Lord et al., 1984; Sy et al., 2010).

**Evidence for a Business Leader Prototype**

Rosette et al. (2008) carried out four experiments that support the theory that being White is a characteristic of a leadership prototype. The first two experiments examined if being White is part of the business leader prototype. In the first experiment, participants read an article about a fictitious company project including an interview with a company representative that described the results of the project as consistent with expectations. The company representative was posed as either a leader of the project or an employee who worked on the project and the composition of the company was manipulated to be 50% White, 20% White, or no mention of the ethnic composition. Depending on these base rates, it is logical to assume that there is a 50% or 20% chance of the business leader being White. However, the results show that in both conditions participants were more likely to categorize the leader, but not the nonleader employee, as White more than the respective base rate would suggest, suggesting that the leadership prototype was activated.

The second experiment was similar to the first. Base rates were held constant at 20% White, but manipulated to be either 80% Asian/Asian American, 80% Black/African American, or 80% Hispanic/Latin American, and the industry type was manipulated (finance or social). Participants were again more likely to categorize the leader, but not the nonleader, as White. Perceptions did not vary by type of industry or base rate. These first two studies provide evidence that being White is part of the business leader prototype.
Experiments three and four examined if leadership prototype was a viable reason for differences in evaluations of leadership effectiveness. In study three, participants read an article discussing a fictitious company, its CEO, and the company’s recent performance. Manipulations included leader ethnicity (Black or White), the organization’s performance (successful or unsuccessful) and the attribution of performance (internally, to the CEO, or externally, to the marketplace). The results indicated that Whites were evaluated more favorably than Blacks, but only when the organization’s successful performance was attributed to the leader. There were no significant differences between the evaluations of Black and White leaders when the organization’s performance was attributed to an external factor (i.e. the marketplace) or when the organization had failed.

Study four’s design was similar to that of study three, but with the goal of finding the activation of leadership prototype concerning leadership potential instead of effectiveness. Study four required participants to read a personnel summary that included a brief profile and performance summary of a consulting services team leader of a fictitious company. They would then evaluate if the target has the potential to be successful if promoted to a senior management position. Manipulations included the team’s performance (successful or unsuccessful), the attribution of performance (attributable to the team leader or to the marketplace), and the ethnicity of the leader (White/European American/Caucasian, Asian/Asian American, or Hispanic/Latin American). Consistent with study 3, the results indicated that Whites were evaluated as having more leadership potential than minorities when success of the organization was internally attributed, but yielded no significant differences when success was externally attributed or when the organization was deemed as unsuccessful.

The pattern of results from Study 3 and Study 4 are also consistent with leadership prototype theory. Whites were evaluated more favorably when the success of the organization was given credit internally. These results indicate that ethnicity is a salient factor in evaluating both leadership performance and potential. When an organization is successful and outcomes can be attributed to a particular individual, favorable evaluations, promotions, and other rewards are at stake. If ethnicity becomes salient during employees’ evaluation, then the accuracy of the evaluation is in jeopardy. However, because these
differences were only found when the leader was successful, they were attributed to the activation of the leadership prototype opposed to a negative perception of racial minorities.

Other research has shown that those belonging to a social group with stereotypical attributes that are not consistent with attributes perceived necessary for success in leadership positions are often victims of prejudice and discrimination, while exemplars of the prototypical leader receive more favorable evaluations of performance and leadership potential (Eagly & Chin, 2010a). Knight et al. (2003), for example, examined the effect ethnicity and leadership status of a hypothetical employee had on performance appraisals. Using the manipulations of ethnicity (Black or White), leadership status (manager or subordinate) and a mistake made by the target employee (large or small), they found that participants viewed Black subordinates and White leaders more positively than White subordinates and Black leaders, supporting the theory that individuals are evaluated more favorably in positions consistent with stereotypical social roles (Knight, Giuliano, & Sanchez-Ross, 2001) and reinforcing current disproportions between ethnicity and leadership status. This is an example of correspondent inference (Eagly & Chin, 2010b), which poses that an individual’s surface-level characteristics will imply other stereotype-matching beliefs about their internal qualities based on stereotypic beliefs about the social group(s) they belong to. These beliefs are the root of much prejudice and discrimination, particularly when surface level characteristics are communicating attributes that are negative or inconsistent with those perceived to be needed for success.

Among the research on ethnicity and leadership, there is evidence to support the notion that Asian Americans are seen as “the model minority,” and are perceived as more comparable to the prototype of a successful manager than both African Americans and Hispanics. Chung-Herrera and Lankau (2005) used an 84-item descriptive index (adapted from Schein, 1973) to measure if leadership relevant adjectives and terms were significantly more stereotypically characteristic of each manager (of different ethnicities). In this study, participants were given a survey portraying by description either a successful manager, Caucasian manager, African American, Asian American, or Hispanic American manager, where each survey was identical except for the manager being evaluated. Participants rated the manager on how stereotypically characteristic each of the 84 items was of “X manager” (e.g., African American manager). Caucasian and Asian American managers were rated most
similar to the successful manager prototype and as significantly more similar to the successful manager prototype than both African Americans and Hispanics. African Americans were also significantly related, although Hispanics were not. Unexpectedly, the Asian American manager yielded the highest number of characteristics in common with the successful manager prototype. The results of this study indicate that Caucasian and Asian American managers are most similar to the prototypical successful manager, compared to African Americans and Hispanic Americans. The study also notes that minority managers did not differ from the successful manager prototype on many of the items, but none of those items were among the top 20 rated most characteristic of the successful-manager prototype. No significant differences between men and women raters were found. These findings also support the notion of Asian Americans as the model minority (Gilbert, Carr-Ruffino, Ivancevich, & Lownes-Jackson, 2003; Oyserman & Sakamoto, 1997). However, although Asian Americans were viewed as most similar to the successful manager prototype, they were also viewed as having negative qualities such as being more submissive and reserved and less charismatic than the successful manager prototype. Eagly and Chin (2010a) note that stereotype beliefs such as these about social groups do not need to be negative to be disadvantageous to leadership perceptions.

Sy et al. (2010) provides further support for the model minority hypothesis. They used a 2 (ethnicity: Asian American, Caucasian American) x 2 (occupation: Engineer, Salesperson) design which raters read a description of a target and rated them on technical competence for their occupation and leadership ability. In two separate samples, Asian American engineers were seen as having more technical competence than Caucasian American engineers and Asian American salespersons were seen as having less technical competence than Caucasian American salespersons. They also found a main effect of target ethnicity such that Asian American leadership perceptions were significantly lower than Caucasian American leadership perceptions. These results support the notion that Asian Americans are seen as technically competent, but of poor fit for leadership positions. This study also explored prototypic leadership attributes (intelligence, dedication, sensitivity, masculinity, tyranny, and dynamism) as mediators for the relationship between target ethnicity and leadership perceptions. Five of the six attributes (sensitivity being the exception) acted as mediators to the relationship between target ethnicity and leadership
perceptions and as hypothesized, Asian Americans’ and Caucasian Americans’ leadership perceptions were activated by different attributes. Leadership perceptions of Asian Americans resulted from the activation of competent-leader prototype attributes (intelligence and dedication), while Caucasian American leadership perceptions were activated by the agentic-leader prototype attributes (masculinity, tyranny, and dynamism). This finding is particularly important because it is a key theoretical tenet of the connectionist model of leadership that ethnicity affects leadership perception through the activation of prototypic leadership attributes.

Based on this review of the literature, it is hypothesized that Whites will be perceived as having more leadership potential than ethnic minorities, and that Asian Americans will be perceived as having more leadership potential than African Americans. Because Rosette et al. (2008) found that differences in perceptions of leadership potential were only found when the target leader was deemed as being responsible for a successful performance (e.g., not caused by external sources such as the marketplace), performance will be manipulated as successful or unsuccessful and attributable to the performance of the target team leader.

Hypothesis 1a: Whites will be perceived as having more leadership potential than ethnic minorities (African Americans and Asian Americans), but only when the leaders’ performance is presented as successful.

Hypothesis 1b: Asian Americans will be perceived as having more leadership potential than African Americans, but only when the leaders’ performance is presented as successful.

**WOMEN & LEADERSHIP**

As previously mentioned, women too are a minority in upper management and executive leadership positions, compared to their male counterparts. Studies indicate that females are evaluated less favorably than their male counterparts when in typically male-dominated, masculine positions (e.g. military, athletic coaches, chief executives, etc.), when supervising a large portion of male subordinates, or when rated by mostly men (Eagly, Karau, & Makhijani, 1995; Lyness & Heilman, 2006; Northouse, 2007; Pazy & Oron, 2001). Explanations have been attributed to causes other than prejudice such as family responsibilities and the tendency for women to display fewer characteristics viewed as necessary to be successful in high-level positions (Greenhaus & Parasuraman, 1993).
Although these are viable causes for a deficiency in women in positions of leadership, it is not enough to explain the whole picture (Grodsky & Pager, 2001; Maume, 1999).

Eagly and Karau (2002) proposed role congruity theory as an explanation for potential bias against women in the workplace. Role congruity theory holds that the potential for prejudice against women in regards to evaluating performance or fit for positions of leadership exists due to the incongruence of gender roles (i.e., stereotypical female characteristics) and social roles (i.e., perceived requirements for positions of leadership). In other words, because societal norms and characteristics for women, being primarily communal, are in conflict with characteristics perceived necessary for competency for a position of leadership in the workplace, being primarily agentic, lower evaluations are more likely to occur. Although it is not impossible to adjust the effects from an individual’s expectations of another due to their gender, the adjustment is likely to occur only under more limited circumstances that may require both the awareness of the individual’s expectations/stereotyping and the intent or motivation to make the proper adjustments (Blaire & Banaji, 1996; Devine, Monteith, Zuwerink, & Elliot, 1991). Eagly’s (1987) social-role theory holds that people are generally expected to behave in manners consistent with their culturally defined gender roles and that the opportunity for prejudice, including in the forms of biased performance evaluations and negative perceptions of future performance and competence, may arise when behaving outside of those expectations (Eagly, 1987; Eagly et al., 1995). This is likely to occur in managerial roles due to the characteristics that are perceived as necessary for success in managerial roles having a strong infusion with cultural masculinity.

The Schein (1973, 1975) studies revealed how both men and women in management perceive men to be more similar to a successful middle-manager than are women. In these studies, Schein used the Schein Descriptive Index (SDI) to draw comparisons between the three groups. The three forms of the SDI contain a 92-item index of descriptive terms, in which raters indicate how characteristic each descriptive term is of either men in general, women in general, or a successful middle-manager. The results of these studies showed that both men in general and women in general were viewed as having characteristics similar to the successful middle-manager, but men were rated as significantly more similar to the successful middle-manager compared to women, supporting Schein’s “think manager-think
male” phenomenon. This effect was found for both male managers (Schein, 1973) and female managers (Schein, 1975) as raters. This study has been replicated and extended by several subsequent studies, such as Heilman, Block, Martell, and Simon (1989), which found that differences in perceptions of men and women compared to the successful middle manager persisted even in conditions of men and women being labeled as “managers” and “successful managers,” and even cross-culturally in Germany and United Kingdom (Schein & Mueller, 1992) and China and Japan (Schein, Mueller, Lituchy & Liu, 1996), with comparable results from the perspective of males. However, in more recent studies, females have perceived both men and women managers as significantly similar to the successful manager and not significantly different from each other, thus only confirming the hypothesis for male raters (Brenner, Tomkiewicz, & Schein, 1989; Dodge, Gilroy, & Fenzel, 1995). As suggested by Brenner et al. (1989), these changes are due to a change in the perception of women among females, as opposed to a change in the perceptions of characteristics required for success in management or a change in women. Furthermore, it is troublesome to find that although it appears that females have made the progression to judge women as having characteristics comparable to a successful manager, males have not since the Schein studies.

Lyness and Heilman (2006) examined differences in performance ratings between men and women upper-middle-level and senior-level managers using archival data from leaders of business units and staff functions who evaluated these managers on nine performance dimensions. As predicted, women in higher-level management positions were evaluated more poorly than women in lower-level management positions as well as men in either position. After looking at promoted individuals, the results indicate that women who were promoted received more favorable composite performance evaluations than promoted men. The results of this study show that women in line positions are at a considerable disadvantage compared to their male counterparts. This is especially troubling considering that executives and CEOs of Fortune 500 companies cited a lack of line management experience as the top barrier to the career advancement of women (Wellington, Kropf, & Gerkovich, 2003). The high performance evaluations of promoted women are also troubling. This could be an indicator that women must work substantially harder than men to be promoted and are evaluated on different, more strict criteria than are men, consistent with Foschi’s (1996) theory about double standards for evidence of competence. The possible
implications of these findings are of particular importance because the data is archival, reflecting decisions from real business leaders as opposed to subjects in a lab experiment. Also, because the men and women evaluated in this sample are already upper-level managers, the discrepancies indicate that even women who are progressing through the ranks of leadership still face resistance from the glass ceiling. An additional explanation for the lower evaluations given to women and higher resistance to promotions is that women, when promoted, are selected for and assigned to more precarious positions of leadership, and thus are more likely to falter, a phenomenon known as, “the glass cliff” (Adams, Gupta, & Leeth, 2009; Haslam & Ryan, 2008; Ryan, Haslam, & Kulich, 2010).

Attributes and characteristics perceived as necessary for success as a business leader are typically associated with characteristics favoring males. With males typically being found as being more prototypical of or fitting as a leader, it is hypothesized that males will be perceived as having more leadership potential than females. Similar to hypotheses 1a and 1b, this difference is hypothesized to occur only when the leader is deemed as being responsible for a successful performance.

Hypothesis 2: Males will be perceived as having more leadership potential than females, but only when the leaders’ performance is presented as successful.

INTERSECTIONALITY

Much of the literature focuses on the effects of ethnicity and gender in isolation. Recently, there have been more calls for future research to invest in examining multiple layers of identity, also referred to as intersectionality. Consideration of intersectionality advances research past observing differences of ethnicity or gender in isolation, toward identifying the unique experiences of being a minority in both regards (i.e., being an ethnic minority woman; Sanchez-Hucles & Davis, 2010). For example, the effect of being both an ethnic minority and a female is a unique experience from being an ethnic minority male, and may therefore result in different outcomes. When ethnic and gender differences are analyzed in isolation, the unique experience of African American women, for example, are overlooked by the main effects of their identities.

There are different perspectives on how multiple layers of identity affect an individual’s experience. One such perspective is summarized by the double jeopardy hypothesis (Beale, 1970). According to this view, individuals with multiple subordinate
statuses, such as being both an ethnic minority and a female, will experience more discrimination than individuals with just a single subordinate status. For example, African American females are at more of a disadvantage than both White women and African American men because they are negatively subject to effects of both racism and sexism (Sesko & Biernat, 2009).

An alternative to the double jeopardy hypothesis is the subordinate male target hypothesis (SMTH). The SMTH carries the notion that it is subordinate males that are most likely to experience discrimination. This is due to competition for resources primarily being an intra-male phenomenon, with dominant males suppressing subordinate males in order to maintain resources and power (Purdie-Vaughns & Eibach, 2008; Sidanius & Pratto, 1999). Thus, according to the SMTH, it is African American males, rather than African American females, that are subject to more direct discrimination and prejudice. For the dominant group to be able to maintain power and resources, subordinate males are challenged with increased hindrances, making it more difficult to climb the ranks of the workplace and join the elite.

Finally, given the historical salience of racism as a tool for discrimination and tension between ethnic, it is possible that race is a more likely cause of discrimination than is gender. The ethnic-prominence hypothesis states that males and females of the same ethnic group are subject to equal amounts of discrimination in general. According to this position, women of color are more likely to experience discrimination due to their race, rather than gender (Levin, Sinclair, Veniegas, & Taylor, 2002).

Until recently, not much research has empirically assessed the fidelity of these hypotheses and the results available are mixed and inconclusive. Because of the lack of clarity in the research concerning how ethnicity and gender interact to form impressions of leadership, the following research question is proposed.

Research Question 1: How do gender and ethnicity combine to affect perceptions of leadership potential?

**Implicit Perceptions of Leadership**

Although the self-report explicit measures have been useful in research to determine general attitudes people hold concerning ethnicity and gender, the development of implicit measures have also proven to be useful to determine how people think and associate terms, categories, and individuals at the unconscious level. There is support for the idea that people
have a “mindless” psychological process that activates attitudes and stereotypes that have the potential to interfere with making unbiased decisions and evaluations (Bargh, 2007; Eagly & Chin, 2010a; Fazio, 2001) and that explicit measures (measures requiring the individual to draw upon introspection) may not always reveal how people actually feel or categorize constructs (Greenwald & Banaji, 1995). Furthermore, adding measurements of uncontrolled psychological processes may be useful not only for the advancement of research on leadership, but also to help organizations accurately make decisions involving selection, training, and evaluations (Chen & Van Velsor, 1996). The implicit association test (IAT) is used to indirectly measure the strength of associations among concepts. The IAT requires individuals to sort stimuli from four concepts (e.g. Black, White, good and bad) using just two response options, each of which is the response to two of the four concepts. Conceptually, it should be easier (and yield a quicker response) to sort the concepts when the two that share a response option are more strongly associated in the individual’s mind than when they are weakly associated. For example, one may predict that the pairing of White and good may be more strongly associated in an individual’s mind than the pairing of Black and good, and may yield a significantly shorter response time than the latter pairing.

However, a weakness of the IAT is that it only allows for comparative measures between complementary categories. Karpinski and Steinmen (2006) explain the issues of interpretation with the IAT:

For example, on a Black–White IAT, scores are interpreted as a comparison of one’s positive White associations and/or negative Black associations with one’s negative White associations and/or positive Black associations. A high score could indicate (a) the presence of many positive White associations, (b) the presence of many negative Black associations, (c) the lack of negative White associations, and/or (d) the lack of positive Black associations. From the single IAT score, it is impossible to determine which of these factors, or which combination of these factors, contributes to the overall score (Blanton & Jaccard, 2006; Blanton, Jaccard, Gonzales, & Christie, 2006; Nosek, Greenwald, & Banaji, 2005). If a single category IAT-type task were available, then a measure of the evaluative associations with Whites and of the evaluative associations with Blacks could be obtained independently, to eliminate some of the ambiguity in the interpretation of IAT scores. (p. 16)

Karpinski and Steinmen (2006) introduced the Single-Category IAT (SC-IAT) to make evaluative associations with a single category, as opposed to using a comparison with a complementary category. They used four studies to evaluate the usefulness and unique
contributions of the SC-IAT across three different domains: soda brand preference, self-esteem, and racial attitudes.

Studies one and two gave evidence of the reliability of the SC-IAT, as well as demonstrating that the measure would be useful for making more conclusive and specific interpretations of scores than the IAT. For study one, participants used the Coke-Pepsi IAT, Coke SC-IAT, Pepsi SC-IAT and an explicit measure to evaluate soda brand preference (Pepsi vs. Coke). The two SC-IAT measures demonstrated to be useful, providing more information about specific preference for each soda brand, by discriminating between Coke and Pepsi drinkers and significantly correlating with the explicit measures of soda brand preference. Pepsi drinkers had more positive associations with Pepsi, compared to Coke drinkers and correlated significantly with explicit measure of Pepsi preference, but not the explicit measure of Coke preference. Similarly, The Coke SC-IAT correlated significantly with the explicit measure of Coke attitudes, but not Pepsi. Additionally, both the Pepsi SC-IAT and Coke SC-IAT significantly predicted soda preference, even when controlling for the IAT measure and explicit preferences.

Study three confirmed that the ethnic-bias SC-IAT (White SC-IAT, Black SC-IAT) would be useful in facilitating interpretation of the results from an IAT, giving additional evidence to the validity of the measure. Study three required participants to complete a White SC-IAT, a Black SC-IAT, a Black-White IAT, and an explicit measure of racial attitudes. The procedure was very similar to that of study one, except the labels of the categories were changed to be relevant for the purpose of this study (e.g. Coke and Pepsi labels were changed to Black American and White American, and a response window of 2,000ms instead of 1,500ms). The results indicated that White participants, for both the explicit and implicit measures, showed a racial bias favoring White Americans. This evidence of racial bias, however, was attributed to in-group favoritism, opposed to the out-group prejudice toward Black Americans, since participants indicated positive attitudes toward both White Americans and Black Americans, just significantly more positive toward White Americans. Black participants also showed in-group favoritism on the explicit measure, however, they showed no ethnic-bias on the implicit measures, indicating positive attitudes toward both Black Americans and White Americans. For the White SC-IAT, no differences in valence with White Americans emerged between Black and White participants. For the Black SC-
IAT, Black participants showed significantly more positive associations with Black Americans than did White participants. White participants showed equally positive and negative associations with Black Americans.

Study 4 explored participants’ ability to fake responses on the SC-IAT. Participants were required to complete an explicit measure of attitude toward women, a male-female IAT, and a female SC-IAT. Participants were randomly assigned to a group with instruction to either show positive or negative attitudes toward women on all three tasks. The results indicated that participants are able to create methods for faking on the SC-IAT, but doing so increases their chance of making errors. Once participants with high error rates are removed from analyses, only small nonsignificant presentation effects were found. Participants were also found to be able to fake the IAT measure without significantly increasing the probability of making errors.

The present study will look at how the SC-IAT will aid in revealing biases in how ethnicity and gender affect perceptions and categorization of a leader. Based on the above review of literature on ethnicity and gender and consistent with the previous hypotheses, the following hypotheses are made for analysis using the SC-IAT:

Hypothesis 3a: There will be a stronger association between Whites and leadership terms than minorities and leadership terms.

Hypothesis 3b: There will be a stronger association between Asian Americans and leadership terms than African Americans and leadership terms.

Hypothesis 4: There will be a stronger association between males and leadership terms than females and leadership terms.

Research Question 2: How do gender and ethnicity interact in their associations with leadership terms?
METHOD

PARTICIPANTS

Participants included 326 students from a large Southern California university. Of those, 145 (44.9%) were White, 79 (24.5%) were Hispanic/Latino, 54 (16.7%) were Asian American, 9 (2.8%) were African American/Black, and 27 (8.4%) were “Other.” In addition, most of the sample was female (225 or 69.7%) and most were also currently unemployed (199 or 61.6%). Participants completed the study as a requirement for class credit. For both portions of the study, criteria were put in place for the inclusion of participant data (see details below); thus, the final sample was 306 for the first part of the study (the Personnel Summary) and 234 for the second part of the study (the Single Category Implicit Association Test).

PROCEDURE: PERSONNEL SUMMARY

Participants first completed the Personnel Summary portion of the study, adapted from the methodology from Rosette, et al. (2008) in an effort to replicate and extend their findings. Participants were told that the goal of this part of the study was to evaluate personnel who were candidates for a promotion to a top position within an organization. Participants were instructed to read a personnel summary that included a brief profile and performance summary of a consulting services Team Leader employed in a fictitious company, Buygen, Inc (Appendix A). Next, they were instructed to evaluate whether the Team Leader described in the profile has the potential to succeed if promoted to a more senior management position within the organization, specifically, a Division Leader. After reading the personnel summary, participants completed an evaluation of the target’s leadership potential.

Manipulations included the target’s ethnicity, gender, and performance. Ethnicity and gender were manipulated using a line item description in the profile summary. Under the label “Ethnicity,” the target was labeled as European American/Caucasian/White, African American, or Asian American. Under the label “Gender,” the target was labeled as either male or female. Because only a single line item description was used to indicate the ethnicity
and gender of the target leader, manipulation checks for the target’s ethnicity and gender were assessed prior to measuring leadership potential to make these manipulations more salient to participants during evaluation of the target. Only participants correctly identifying the manipulations of the target’s ethnicity and gender were used in analyses. Therefore, the sample size for this portion of the study was 306 (see Table 1).

**Table 1. Personnel Summary: Sample Size per Condition**

<table>
<thead>
<tr>
<th>Personnel Summary</th>
<th>Increased Performance</th>
<th>Decreased Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian American Male leader</td>
<td>25</td>
<td>28</td>
</tr>
<tr>
<td>African American Male leader</td>
<td>28</td>
<td>26</td>
</tr>
<tr>
<td>European American Male leader</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Asian American Female leader</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>African American Female leader</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>European American Female leader</td>
<td>24</td>
<td>26</td>
</tr>
</tbody>
</table>

The target’s performance was manipulated in the performance summary, being described as either having created an increase/decrease in the team’s profitability due to an increase/decrease in the number of profitable projects completed. Each participant completed only one of the twelve Personnel Summaries.

The leadership potential measure was used to evaluate the Team Leader’s career expectation in the role of the Division Leader and consisted of three items: “S/he has the competence to perform effectively in the Division Leader role,” “S/he has what it takes to lead others in a division successfully,” and “S/he will be an effective Division Leader.” Participants rated their level of agreement using a 7-point response scale (1 = strongly disagree, 7 = strongly agree).

Analysis of reliability shows that each of the 12 personnel summary measures demonstrated an acceptable level of internal consistency. Among targets portrayed as having increased in performance: $\alpha = .96$ for Asian American males, $\alpha = .95$ for African American males, $\alpha = .88$ for Caucasian American males, $\alpha = .93$ for Asian American females, $\alpha = .92$ for African American females, and $\alpha = .95$ for Caucasian American females. Among targets portrayed as having decreased in performance: $\alpha = .96$ for Asian American males, $\alpha = .93$ for...
African American males, $\alpha = .95$ for Caucasian American males, $\alpha = .97$ for Asian American females, $\alpha = .93$ African American females, $\alpha = .98$ for Caucasian American females.

**PROCEDURE: SINGLE CATEGORY IMPLICIT ASSOCIATION TEST**

To measure implicit associations between the six targets and the evaluative dimensions “Business Leader” and “Business Subordinate,” this study followed the methodology used in Karpinski and Steinman (2006). Each participant completed each of the six SC-IAT measures. Each SC-IAT consisted of three stages, which all participants completed in the same order. The first stage consisted of 24 practice trials and the following two stages consisted of 72 test trials each. Practice trials required the categorization of only business leader related terms and business subordinate related terms into their appropriate evaluative dimensions. Categorization of the target in addition to business leader and business subordinate related terms was introduced in the instructions following the practice trials. In the second stage (target + Business Leader), pictures of the target and business leader related terms were categorized on the “e” key and only business subordinate related terms were categorized on the “i” key. In an attempt to prevent response bias from developing, pictures of the target, business leader related terms, and business subordinate related terms were not presented in equal ratio. Instead, they were presented in a 7:7:10 ratio, meaning that for every 24 stimuli presented, seven were of the target, seven were business leader related terms, and ten were business subordinate related terms, so that 58% of the correct responses are on the “e” key and 42% of correct responses are on the “i” key. In the third stage (target + Business Subordinate), pictures of the target and business subordinate related terms were categorized on the “i” key and only business leader related terms were categorized on the “e” key. Pictures of the target, business leader related terms, and business subordinate related words were presented in a 7:10:7 ratio, meaning for every 24 stimuli presented, seven were of the target, ten were business leader related terms, and seven were business subordinate related terms, so that 42% of correct responses were on the “e” key and 58% of correct responses were on the “i” key (see Table 2). Participants were instructed to take an optional three-minute rest period following the third SC-IAT if they chose.
Table 2. Single Category Implicit Association Test Procedure

<table>
<thead>
<tr>
<th>Block</th>
<th>Trials</th>
<th>Function</th>
<th>Left-key response</th>
<th>Right-key response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>24</td>
<td>Practice</td>
<td>Business Leader terms</td>
<td>Business Subordinate terms</td>
</tr>
<tr>
<td>2</td>
<td>72</td>
<td>Test</td>
<td>Business Leader terms + Target</td>
<td>Business Subordinate</td>
</tr>
<tr>
<td>3</td>
<td>72</td>
<td>Test</td>
<td>Business Leader terms</td>
<td>Business Subordinate terms + Target</td>
</tr>
</tbody>
</table>

The evaluative dimensions were labeled “Business Leader” and “Business Subordinate” and the object dimensions were labeled as the target (European American male, European American female, African American male, African American female, Asian American male, or Asian American female). Five target words were used for each of the evaluative dimensions, and all target words were presented in white letters. The following words were used for the “Business Leader” evaluative dimension: supervisor, manager, superior, boss, and executive. In addition, the following words were used for the “Business Subordinate” evaluative dimension: staff, aid, helper, assistant, and subordinate. For each of the six SC-IATs, three pictures were selected to represent that target’s ethnicity and gender. The faces used in this study were synthetically created in FaceGen 3.5 Modeller software (see Appendix B and C). The faces were selected for use in this study based on a pilot study using several example faces for each target. For pilot testing, research assistants and graduate students used an online survey to indicate the ethnicity and gender they believed the target face to be, and then rated how clearly that target represented that ethnicity and gender on a seven-point Likert scale. The final faces selected for this study were based on highest ratings of how clearly the face represented its appropriate ethnicity and gender.

Instructions concerning the dimensions of the categorization task and the appropriate key responses preceded each stage of each SC-IAT. Stimuli appeared centered on the screen with labels for each evaluative dimension were positioned on the top corners of the screen (Business Leader on the top left, Business Subordinate on the top right, target label underneath appropriate evaluative dimension). In an attempt to prevent participants from engaging in any controlled processing, if participants failed to respond within 1,500 ms, a reminder to “Please respond more quickly!” appeared in red letters for 500 ms. Following each trial response, participants were given feedback regarding the accuracy of their
response. A green O appeared in the center of the screen for 150 ms following correct responses; a red X appeared in the center of the screen for 150 ms following each incorrect response. The procedure was identical for each SC-IAT, substituting the appropriate label for the object dimension and pictures identifying that target.

Following the method of Karpinski and Steinman (2006), a single score for each of the SC-IATs completed by each participant were created using a modified version of the d-score algorithm. Data from practice trials were discarded as well as nonresponses and responses less than 350 ms. Error responses were replaced with the block mean for that participant plus an error penalty of 400 ms. The average response time of the target + Business Leader block will be subtracted from the average response time of the target + Business Subordinate block and then divided by the standard deviation of all correct responses within that SC-IAT. Finally, participants recording an error rate above 20% on any of the six SC-IATs were eliminated from analyses, resulting in the analysis of 234 participants.
RESULTS

PERSONNEL SUMMARY

A 3x2x2 between-subjects ANOVA was used to analyze the Personnel Summary data. Results did not differ by participant demographics and thus, are not mentioned further for this study. No main effect was found for ethnicity when comparing White to minority targets, $F(1, 294) = 3.522, p = .06$ or comparing African American to Asian American targets, $F(1,294) = .282, p = .60$. The main effect of target gender was also found to be nonsignificant, $F(1,294) = 2.514, p = .11$. There was a significant main effect of performance, such that targets with successful (increased) performance were evaluated more favorably than those with unsuccessful (decreased) performance, $F(1,294) = 448.019, p < .01$. No significant difference was found in the interaction of target performance and ethnicity comparing Whites and minorities, $F(1,294) = .977, p = .32$. The results are similar for the interaction of target performance and ethnicity comparing African American and Asian American targets, $F(1,294) = .782, p = .38$. These results provide no support for Hypothesis 1a or 1b. Hypothesis 2 was also not supported. The interaction between target gender and performance was not significant, $F(1,294) = 3.007, p = .08$. The results also yielded no significant interactions between target ethnicity and gender. The interaction of target ethnicity and gender comparing Whites and minorities was not significant, $F(1,294) = 1.169, p = .28$. This interaction remained nonsignificant when adding the third factor of performance, $F(1,294) = .598, p = .44$. Results were similar for the interaction between target ethnicity and gender comparing African American and Asian American targets, $F(1,294) = 1.339, p = .25$. This interaction remained nonsignificant when adding the third factor of performance, $F(1,294) = .866, p = .35$.

Planned comparison tests were also conducted. Because this study aimed to differentiate among employees most ready for promotions, these analyses were made only among the six targets with increased performance. T-tests were conducted both by ethnicity (within gender) and by gender (within ethnicity). For males, no significant differences were found between Asian Americans ($M = 6.23, SD = 0.77$) (see Table 3) and African Americans ($M = 6.51, SD = 0.61$), $t(51) = -1.50, p = 0.14$, nor European Americans ($M = 6.46, SD = 0$).
### Table 3. Personnel Summary: Means and Standard Deviations

<table>
<thead>
<tr>
<th>Personnel Summary</th>
<th>Increased Performance</th>
<th></th>
<th>Decreased Performance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Asian American Male</td>
<td>6.23</td>
<td>0.77</td>
<td>2.92</td>
<td>1.61</td>
</tr>
<tr>
<td>African American Male</td>
<td>6.51</td>
<td>0.61</td>
<td>3.22</td>
<td>1.41</td>
</tr>
<tr>
<td>European American Male</td>
<td>6.46</td>
<td>0.61</td>
<td>3.22</td>
<td>1.54</td>
</tr>
<tr>
<td>Asian American Female</td>
<td>6.21</td>
<td>0.72</td>
<td>3.57</td>
<td>1.61</td>
</tr>
<tr>
<td>African American Female</td>
<td>6.42</td>
<td>0.62</td>
<td>3.14</td>
<td>1.38</td>
</tr>
<tr>
<td>European American Female</td>
<td>6.50</td>
<td>0.72</td>
<td>4.08</td>
<td>2.13</td>
</tr>
</tbody>
</table>

0.61), $t(47) = -1.16, p = 0.25$. African Americans and European Americans showed no significant differences either, $t(50) = 0.32, p = 0.75$. Ethnic differences among females were similar. No significant differences were found between Asian Americans ($M = 6.21, SD = 0.72$) and African Americans ($M = 6.42, SD = 0.62$), $t(50) = -1.11, p = 0.27$, nor European Americans ($M = 6.50, SD = 0.72$), $t(49) = -0.43, p = 0.67$. African Americans and European American females showed no significant differences either, $t(49) = -0.43, p = 0.67$. There was also a lack of significant differences based on gender. Asian American males and females were not significantly different, $t(48) = 0.06, p = 0.95$, nor were African American males and females, $t(53) = 0.56, p = 0.58$, nor European American males and females, $t(46) = -0.22, p = 0.83$.

**SINGLE CATEGORY IMPLICIT ASSOCIATION TEST**

For this portion of the study, d-scores were submitted as a 3x2 repeated measures ANOVA. Results did not differ by participant demographics and thus, are not mentioned further for this study. The main effect of ethnicity comparing Whites and minorities was not significant, $F(1, 233) = .869, p = .35$, not supporting Hypothesis 3a. A significant main effect of ethnicity was found for the comparison between African Americans and Asian Americans $F(1,233) = 14.248, p < .01$. However, this effect was in the opposite than expected direction with African Americans found to be more closely associated with the business leader category than Asian Americans, contrary to Hypothesis 3b. A significant main effect of target gender was found with male targets being more closely associated with business leader
terms than female targets $F(1,233) = 6.392, \ p = .01$, providing full support of Hypothesis 4. No support was found suggesting an interaction between target ethnicity and gender. The interaction between target gender and the comparison of Whites and minorities yielded no significant difference $F(1,233) = 1.335, p = .25$. The interaction between target ethnicity and gender comparing African and Asian Americans was also found to be nonsignificant $F(1,233) = .098, p = .76$. Planned comparison tests were also conducted. Identical to the comparisons made for the Personnel Summary, t-tests were conducted by ethnicity (within gender) and by gender (within ethnicity). Scores for Asian American males ($M = 0.00, \ SD = 0.30$) (see Table 4) were significantly lower than both African American males ($M = 0.07, \ SD = 0.29$), $t(233) = -2.49, p = 0.01$ and European American males ($M = 0.07, \ SD = 0.34$), $t(233) = -2.43, p = 0.02$. No significant difference was found between African American males and European American males, $t(233) = -0.08, p = 0.94$. Scores for Asian American females ($M = -0.03, \ SD = 0.31$) were significantly lower than African American females ($M = 0.05, \ SD = 0.29$), $t(233) = -2.95, p < 0.01$, but not European American females ($M = 0.00, \ SD = 0.30$), $t(233) = -1.30, p = 0.20$. No significant difference was found between African American females and European American females, $t(233) = 1.58, p = 0.12$. Looking at differences in gender, Asian American males did not differ from Asian American females, $t(233) = 1.21, p = 0.23$, nor did African American males differ from African American females, $t(233) = 0.92, p = 0.36$. However, European American males were found to be significantly different from European American females, $t(233) = 2.30, p = 0.02$.

Table 4. Single Category Implicit Association Test: Means and Standard Deviations

<table>
<thead>
<tr>
<th>SC-IAT</th>
<th>Asian American</th>
<th>African American</th>
<th>European American</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
</tr>
<tr>
<td>Male</td>
<td>0.00</td>
<td>0.30</td>
<td>0.07</td>
</tr>
<tr>
<td>Female</td>
<td>-0.03</td>
<td>0.31</td>
<td>0.05</td>
</tr>
</tbody>
</table>
DISCUSSION

The purpose of this study was to investigate the effects ethnicity and gender have on perceptions of leadership potential and status. Previous research has supported the idea of there being a White male prototype for individuals’ conceptions of a business leader. The research on leadership has primarily explored differences by ethnic group (Whites, African Americans, and Asian Americans) or by gender (males and females) in isolation. There has recently been a call for more research to investigate the intersectionality of ethnicity and gender on perceptions of leadership (Sesko & Biernat, 2009).

Using fictitious personnel performance summaries, this study hypothesized that there would be differences in perceptions of leadership potential such that Whites would be evaluated as having more leadership potential than ethnic minorities (African Americans and Asian Americans) under conditions of successful performance and Asian Americans as having more leadership potential than African Americans under conditions of successful performance. Additionally, males were hypothesized as being evaluated to have more leadership potential than females under conditions of successful performance. The effect the interaction of ethnicity and gender has on leadership potential was also explored. In the Personnel Summary’s evaluation of leadership potential, no main effects were found for ethnicity or gender. However, there was a significant effect for performance such that targets with increased performance were evaluated as having more leadership potential than targets with decreased performance. No significant interactions were found among the three factors.

Using the single category implicit association test, the second part of the study investigated how closely these groups are implicitly associated with the status of being a business leader versus a business subordinate. Consistent with the hypotheses on leadership potential, it was hypothesized that Whites would be more closely associated to the status of business leader than ethnic minorities, Asian Americans more closely associated than African Americans, and males more closely associated than females. The effect of the interaction of ethnicity and gender on associations to the status of business leader was also explored. The implicit measure did not reveal a significant difference between Whites (tested as European Americans) and the combined ethnic minority groups. Nevertheless, the results did indicate
that Whites were more closely associated with the status of a business leader than Asian Americans and that African Americans were more closely associated with the status of business leader than Asian Americans. Males were also more closely associated to the status of business leader than females. No interactions between ethnicity and gender were found to be significant.

There are some conflicting results between the two parts of this study. Although the Personnel Summary showed target performance to be an important factor in participant’s evaluation of leadership potential, neither ethnicity nor gender displayed meaningful differences. However, the SC-IAT did show ethnic and gender differences in that participants more closely associated the status of business leader with Whites and African Americans rather than Asian Americans, and with males rather than females. The finding that Whites and African Americans were associated with business leaders to a similar degree, and that both were significantly more associated than Asian Americans is a notable finding. This finding is important because of its inconsistency with the model minority hypothesis. Instead, it is closer to the ideology that Asian Americans may be perceived as technically competent, yet not suitable for managerial positions. Although Asian Americans are stereotypically perceived to have many positive attributes, they may also be stereotypically associated with certain negative attributes that cause this perceived lack of fit (Chung-Herrera & Lankau, 2005; Fernandez, 1999).

Concerning the theories of intersectionality, the data appears to support the ethnic-prominence hypothesis, opposed to the double jeopardy hypothesis or the subordinate male target hypothesis. With the exception of Caucasian American males being more closely associated to the status of a business leader than Caucasian American females in the SC-IAT, no differences were found between males and females of the same ethnic group. This indicates that ethnicity is more salient than gender when it comes to evaluation and associations of business personnel.

What appears to be mixed results in the data could potentially stem from the nature of the measures themselves. It could be that the two measures are giving answers to two entirely different questions. The results of the Personnel Summary are a reflection of participants’ evaluation of a single employee’s performance on their individual merit. The lack of significant differences between employees performing successfully indicates that they have
each been evaluated relatively equally based on their individual performances. Employees in line for promotion or rewards are typically those who have performed well and evaluated favorably. Those employees are then compared directly against other employees also in line for a promotion with similar performance ratings. The Personnel Summary measure did not allow for participants to go beyond performance evaluation and into selection for promotion or other rewards. In this study, differences may have occurred if participants had been given the task to select one target qualified target over another for a position, as actually occurs in organizations. Selection is where disparities in high-level business positions occur. An ethnic minority or female employee may be evaluated favorably in their current position, but still seen as unfit for particular roles or not as preferable as another employee with similar performance. The differences may have also occurred because the SC-IAT is developed to make it more difficult for participants to engage in controlled processing and find their immediate response to the stimuli that they are presented with. There may have been more controlled processing occurring with participants in the Personnel Summary measure than with the SC-IAT.

The SC-IAT assesses participants’ level of association between the target and two workplace statuses. This assessment may only be an indication of the level of familiarity and exposure participants have to the target and these workplace statuses. Associations, as measured in the case of this study, are not measures of preference for placement of particular employees for rewards in the workplace. This could potentially also explain the lack of differences in participant demographics as moderators. As discussed earlier, disparities in the highest levels of leadership are apparent in the U.S. as a whole. It is possible that participants have been subjected to the same relative level of exposure to the differences in management and leadership personnel, allowing for similar associations between them. It should also be noted that the SC-IAT used terms of leadership levels as examples opposed to terms of leadership ability as some of the previous research has done. The terms used also did not use qualifiers such as “successful leader” or “effective subordinate,” allowing the potential for more variation in the meaning of each associative term to each participant.
LIMITATIONS

This study used a student sample, and the level of experience this sample had with making decisions in evaluating and rewarding an organization’s employees is likely relatively low. It may be the case that biases are more likely to occur after being more directly exposed to and working with actual leaders in the workforce, where there are not many counter-stereotypical examples of female and ethnic minority leaders. Since many of these participants have limited, if any exposure to leadership in the workforce, they may not have developed these biases. Considering the diversity of student organizations and leadership positions within them, it may simultaneously be the case that this sample has sufficient experience with a diverse group of individuals and leaders within the university, providing them with counter-stereotypical examples of the targets of this study, causing less biased perceptions in what makes a leader. There may also be generational differences with this sample, and thus the results (or lack thereof) may reflect societal changes that have occurred over time. With America’s first African American president currently in office, this may have provided a significant portrayal of an ethnic minority leader that was not available to previous generations. This clear example of an African American leader, along with the relative lack of Asian Americans visible as leaders in such executive form, may also contribute to the lack of support for the model minority hypothesis. Furthermore, this study did not specify the industry or organizational setting that the targets are working in or being associated with. Differences may occur due to the specific type of organization or occupation that the target is being evaluated in, similar to the results of Sy et al. (2010), in which Asian American salespersons were evaluated significantly lower than Asian American engineers and Caucasian American salespersons evaluated significantly higher than Caucasian American engineers. Considering the Personnel Summary measure specifically, there may be an issue of statistical power. Participants were presented only one of twelve possible targets, causing in a small sample size for each condition (n = 23-28 participants), and thus a reduction in power, making it difficult to find significant effects.

The SC-IAT itself may be a limitation in that it is a newer tool that hasn’t been tested and compared in as many contexts as the IAT, so many drawbacks or artifacts of this tool may be unknown. An IAT may have yielded different results than the SC-IAT. Since the SC-IAT focuses on categorizing terms and pictures for only one target at a time, it could be the
case that the mental contrasting of multiple targets is necessary in this type of research in order to fully activate participants’ value(s) of each target. Focusing on making categorizations for only one target at a time may also make it easier to engage in socially desirable responses.

Finally, specifying the targets’ identities by both gender and ethnicity may have contributed to the lack of significance in the results. If participants were to have had to make categorizations only by the main effects of gender and ethnicity, the results may have yielded a different set of patterns. More research is needed to identify any differences in using main effects and the intersectionality of gender and ethnicity.

**STUDY CONTRIBUTIONS**

The results of this study advance the discussion in research concerning issues of leadership perceptions in the workplace. For example, the model minority hypothesis could be clarified. Perhaps it is that Asian Americans are perceived as the model minority in the context of subordinate positions in the workplace, but perceived not suitable for higher-level positions. Also, the results indicate uncertainty as to where the differences in perceptions of leadership potential by ethnicity and gender are most critical. Biases may be most potently effective at the stage of activation of stereotypes (based on surface characteristics and a lack of experience with an individual), or during perceptions of performance evaluation, or at the stage of selection. Research can continue to build upon these stages to find when biases are most likely to affect ethnic and gender disproportions in the workplace. Finally, this study indicates that performance is still a key criterion for being successful in the workplace, above and beyond other external factors. Since performance in the workplace should be the most important factor in making decisions as to whom is deserving of attaining certain positions, the significance of target performance as a factor in evaluation is reassuring.

**DIRECTIONS FOR FUTURE RESEARCH**

In addition to the performance evaluation of employee personnel, future leadership studies should look at differences in the selection phase. Exploration of the glass cliff could also be pursued when analyzing selection for specific promotion positions. This will allow exploration of the placement of targets that have proven to perform successfully. Furthermore, a more rigorous simulation could be used to make the participant more aware
that they are in the role of a decision maker that affects the future success of their organization. This may require being explicitly informed that they are making a decision whether to promote one candidate over others. Since neither the Personnel Summary nor the SC-IAT showed Asian Americans to be superior to African Americans, more research could be invested in differences between these minority groups in particular, as well as the model minority hypothesis and how it works in regards to promotions and receiving rewards. Theories of intersectionality and differences among minorities in particular should be explored and expanded upon. Leadership research can continue to progress by continuing to explore differences among the groups from this study, other ethnic groups, (e.g., Hispanics, Native Americans), or minority groups based on other demographic variables (e.g., religious affiliation, sexual orientation, and persons with disabilities).

**CONCLUSION**

The results of this study indicate that there is still plenty of room for the exploration of differences on perceptions, evaluations, and selection of leaders in the context of the workplace. Although the results of this study did not yield potent differences among the targets analyzed, they did indicate that additional clarification might be needed to the parameters of the model minority hypothesis and White male prototype. There is reason to believe that there are still many differences to be explored given other manipulations, tasks, and settings. Progress is being made in terms of equality in the workplace but research is still needed to further our understanding of the effects of demographic differences on leadership perceptions.
REFERENCES


**WORKS CONSULTED**


Buygen Inc.

Organization Profile
Buygen Inc. is a large corporate conglomerate that provides consulting services. The company is comprised of regional divisions (Northern, Southern, Eastern, and Western). Each of these consulting divisions is divided into project teams managed by team leaders. Each division has a division leader who oversees all of the project teams.

Candidate Profile
Address: 1734 River Street
Gender: Male/Female
Ethnicity: European American/African American/Asian American
Start Date: October 2, 2002 (employed at Buygen Inc. for 9 years)
Buygen Inc. Division: Northern Division
Current Position: Leader, Consulting Services Team

Performance Appraisal
This team leader has led a consulting services team in the Northern Division for over three years. Over the team’s three annual performance appraisals, it is clear there has been [an increase/a decrease] in the team’s profitability as the consulting services team has experienced [an increase/a decrease] in the number of profitable projects completed each year. Last year’s appraisal noted that the team’s performance was due to the performance of the team leader, not the marketplace, and stated that, “it is the team leader’s management skills that explains the team’s performance record.”

Performance Rating Questions

1. S/he has competence to perform effectively in the division leader role. (1= strongly disagree, 7= strongly agree)

2. S/he has what it takes to lead others in a division successfully. (1= strongly disagree, 7= strongly agree)

3. S/he will be an effective division leader. (1= strongly disagree, 7= strongly agree)
APPENDIX B

MALE FACES FOR THE SINGLE CATEGORY

IMPLICIT ASSOCIATION TEST
<table>
<thead>
<tr>
<th>SC-IAT - Faces</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian American</td>
<td><img src="image1" alt="Asian American Male Faces" /></td>
</tr>
<tr>
<td>African American</td>
<td><img src="image2" alt="African American Male Faces" /></td>
</tr>
<tr>
<td>European American</td>
<td><img src="image3" alt="European American Male Faces" /></td>
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</tbody>
</table>
APPENDIX C

FEMALE FACES FOR THE SINGLE CATEGORY
IMPLICIT ASSOCIATION TEST
<table>
<thead>
<tr>
<th>SC-IAT - Faces</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian American</td>
<td><img src="image1" alt="Asian American Faces" /></td>
</tr>
<tr>
<td>African American</td>
<td><img src="image2" alt="African American Faces" /></td>
</tr>
<tr>
<td>European American</td>
<td><img src="image3" alt="European American Faces" /></td>
</tr>
</tbody>
</table>