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The White Standard: Racial Bias in Leader Categorization

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Abstract

Four experiments investigated whether race is perceived to be part of the business leader prototype, and if so, whether it could explain differences in evaluations of White and non-White leaders. The first two studies revealed that "being White" is perceived to be an attribute of the business leader prototype, where participants assumed that business leaders more than non-leaders were White, and this inference occurred regardless of base-rates about the organization's racial composition (Study 1), the racial composition of organizational roles, the business industry, and the types of racial minority groups in the organization (Study 2). The final two studies revealed that a leader categorization explanation could best account for differences in White and non-White leader evaluations, where White targets were evaluated as more effective leaders (Study 3) and as having more leadership potential (Study 4), but only when the leader had recently been given credit for organizational success, consistent with the prediction that leader prototypes are more likely to be used when they confirm and reinforce individualized information about a leader's performance. The results demonstrate a connection between leader race and leadership categorization.

Keywords: racial bias, prototypical leadership characteristics, stereotypes, leadership categorization, diversity

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Substantial progress has been made by underrepresented minorities in Corporate America since the 1960s Civil Rights Movement knocked down opaque racial barriers and championed equal opportunity in organizational settings. Over time, African-Americans have come to occupy a greater percentage of entry-level positions and more middle management roles (Bureau of Labor Statistics, 2004; Tomaskovic-Devey *et al.*, 2006). In addition, other racial minority groups, such as Asian-Americans (Takaki, 1989; Woo, 2000) and Hispanic-Americans (GAO Report, 2006), have also made noticeable inroads at lower and middle levels in business organizations. Although progress is evident at some positions, racial minorities are still less visible in top leadership positions than would be expected based upon the population base rates (Corporate Board Initiative, 2006; Fortune, 2006; McCoy, 2007; The Alliance for Board Diversity, 2005; Thomas & Gabarro, 1999). Given that explicit racial barriers no longer exist, what is preventing well-trained racial minorities from advancing within the organizational hierarchy to become leaders in U.S. companies?

One important determinant for whether employees advance to leadership positions is how their leadership skills and task competencies are evaluated (Connelly *et al.*, 2000; DeVries, 2000; Hollander, 1960; Levinson, 1980; Lord, DeVader, & Alliger, 1986). Leadership evaluations are an assessment of an organization member's ability to produce positive outcomes for the organization and affect who is appraised favorably and who is allowed to lead the organization (Calder, 1977; Lord & Maher, 1991; Meindl & Ehrlich, 1987; Meindl, Ehrlich, & Dukerich., 1985). According to leadership categorization theory, leaders will be evaluated as most effective when they are perceived

to possess prototypical characteristics of leadership (Lord & Maher, 1991). Specifically, over time individuals develop a set of beliefs about the behaviors and characteristics of leaders. These beliefs develop into leadership categories and from the various categories of leadership evolve a standard example or typical leader category known as a leadership prototype. Those leaders who possess characteristics that are most consistent with the evaluators' leader prototype are appraised most favorably. Several studies have shown that the fit of individuals' characteristics to evaluators' leadership prototypes affects leadership perceptions and leadership ratings across several domains including gender (Brenner, Tomkiewicz, & Schein, 1989; Eagly & Karau, 2002; Heilman, Block, Martell, & Simon, 1989; Nye & Forsyth, 1991; Schein, 1973; Scott & Brown, 2006), culture (Ensari & Murphy, 2003), and politics (Foti, Fraser, & Lord., 1982), yet the connection between race and leadership prototypes has been largely ignored.

The purpose of this paper is to fill that research gap and to examine leadership prototypes as one potential explanation for racial bias in top leadership positions. That is, top leadership positions are most frequently occupied by White leaders as opposed to racial minority leaders and expectations regarding the prototypical characteristics of the race of the leader may help to explain why White leaders are preferred over racial minority leaders. By examining this type of racial bias in leadership positions, we can offer a more in depth understanding of leadership categorization and leadership prototypes as applied to U.S. business leaders. We propose that race, and specifically "being White," may be a prototypical attribute of leadership.

When asked to consider the career advancement and performance appraisals of others, many people in the U.S. believe they yield to principles of meritocracy (Castilla, forthcoming; Rosette & Thompson, 2005) and practice a philosophy of colorblindness (Reitman, 2006; Wildman, 1996). That is, they believe that race is not important (Rosette, 2006) and does not affect their workplace evaluations of others. In stark contrast to these assertions, we propose that race plays a critical role in organizational settings, particularly when leadership evaluations are considered. In this paper, we explored the connection between leader race and leadership prototypes and tested whether, at least in the United States, Whites are perceived to be prototypical business leaders, and if so, whether more favorable evaluations of White relative to non-White leaders could be best explained by leadership categorization theory.

Leadership Categorization Theory

Leadership categorization theory is largely based on traditional categorization theory, which describes how individuals develop categories to help them organize and process information efficiently (Rosch, 1978). Categories possess very distinct features (Crocker, Fiske, & Taylor, 1984), summarize images and labels by others in the environment (Cantor & Mischel, 1979) and are comprised of similar, yet non-identical members (Lakoff, 1987). Previous empirical research has demonstrated that prototypes evolve from categories and represent an original type, form, or instance of something serving as a typical example or standard of other things in the same category (Rosch & Mervis, 1975). Specifically, a prototype represents a central tendency or average characteristic of the members of a category (Rosch, 1978; Smith & Medin, 1981). For example, within the context of a business organization, the characteristics "a person" and

"has followers" are common to most leaders. Characteristics such as these help to distinguish one category (i.e., leaders) from another category (i.e., non-leaders) and are said to be prototypical characteristics. That is, such characteristics provide a cognitive cue to the evaluator as to the likelihood that an entity falls in a particular category (Beach, 1964; Kruschke & Johansen, 1999; Martignon, Vitouch, Takezawa, & Forster, 2003; Reed, 1972).

Utilizing the basic concepts of categorization theory, Lord and his colleagues developed *leadership* categorization theory (Lord & Maher, 1991; Lord, 1985; Lord, Foti, & Phillips, 1982). In contrast to other leadership theories that focus on differences in performance or influence, such as charismatic leadership (House, 1977), transformational leadership (Bass, 1985; Burns, 1978), and visionary leadership (Bennis & Nanus, 1985; Kouzes & Posner, 1987), leadership categorization theory investigates evaluators' *perceptions* of leaders. According to the theory, evaluators compare a target person with already pre-existing knowledge structures called leadership prototypes, which reflect the average characteristics of leaders in a given context. The process of comparing a target person with a leadership prototype is called a recognition-based process (Lord & Maher, 1990, 1991) and can influence evaluators' perceptions of targets. This recognition-based process can lead to a match or mismatch between the target person's traits and the traits that are common to the evaluators' leadership prototype. With a match, the target individual is categorized as a leader, but with a mismatch, the target is not categorized as a leader. As a consequence, when a match occurs target individuals who are perceived to be more prototypical leaders have been shown to be evaluated more favorably (Eagly & Karau, 2002; Ensari & Murphy, 2003; Nye &

Forsyth, 1991; Phillips, 1984; Phillips & Lord, 1982; Rush & Russell, 1988; Scott & Brown, 2006). In this work, we sought to investigate whether a person's race may be part of the business leader prototype.

<div align="center">Race as an Attribute of the Leader Prototype</div>

We posit that, at least in the United States, a central characteristic of leadership is "being White" and accordingly, evaluators will perceive that White leaders are more prototypical business leaders than are leaders who are racial minorities. We argue that it is the development of evaluators' leadership prototypes that likely leads to the incorporation of race into the leader prototype, and consequently, to the belief that prototypical business leaders are White leaders. According to Rosch's (1978) categorization theory, prototypes develop from familiarity with examples from categories and encompass two distinct structural principles. Prototypes develop because people learn which characteristics are central among members of a category *(first principle)* and not as central among members of other categories *(second principle)*. Lord and Maher (1991) summarize Rosch's prototype development process in this way:

> . . . category prototypes develop from experience with examples of categories. Over time, people learn which attributes are both widely shared among category members (being high in family resemblance) and relatively rare among nonmembers of a category (being high in cue validity). . . . Prior to the development of a category prototype, categories are often defined on the basis of exemplars-concrete examples of specific category members. For example, someone who has no experience with military leaders might define this category based on his or her knowledge of one salient military leader (for example, Eisenhower or Patton). But as experience with military leaders accumulates, a more general and representative composite of military leaders would define the category (p.43).

Empirical work supports this prototype development process. Through repeated interactions with examples of a given category, individuals have been shown to abstract characteristics from these observed examples to develop a prototype (Lord, Foti, &

Vader, 1984; Rosch & Mervis, 1975). We posit that individuals' exposure to exemplars of leaders are likely to be White, and thus, when they abstract attributes that are common to examples of business leaders but are perhaps less common to examples of non-leaders, they will conclude that the average leader, the prototypical leader, must be White.

White exemplars of leaders may originate from two sources. First, evaluators are presently and persistently exposed to White individuals holding prominent leadership positions. Recent business statistics support this assertion. In the U.S. workforce, more than 87% of chief executive positions (U.S. Bureau of Labor Statistics, 2006), 84% of the seats on Fortune 100 Boards of Directors (The Alliance for Board Diversity, 2005) and more than 97% of Fortune 500 CEO positions were held by Whites (Corporate Board Initiative, 2006; Fortune, 2006; McCoy, 2007). Given the close alliance between politics and business, political leaders may also provide salient exemplars. In 2007, 96% of state governors (National Governors Association, 2007), 94% of the U.S. Senators (U.S. Senate Statistics, 2007) and 83% of congresspersons in the U.S. House of Representatives were White (U.S. House of Representative Statistics, 2007). It also should be noted that these percentages are above those predicted by the proportion of White individuals in the general US population, especially when the Hispanic population is considered as a separate category (61%; U.S. Census Bureau, 2006).

Second, and perhaps more important, U.S. history may also influence leadership perceptions, as historically, both in politics and in business, prominent leaders (and perhaps, many individuals' first encounters with leadership exemplars) have been White. For example, all 43 United States Presidents have been White. Moreover, the more noted historical examples of American business success are represented by White

entrepreneurs: In the 19th century, Andrew Carnegie (steel) and John D. Rockefeller (oil);

in the 20th century, Henry Ford (automobile), Ray Kroc (McDonalds), Conrad Hilton

(hotels), and Ross Perot (technology services); and in the 21st century, Bill Gates

(computer technology) and Steven Forbes (media). Such historical perceptions of White

individuals in leadership positions reinforce the assertion that "being White" is a primary

and probable characteristic of leadership.

Thus, we posit that being White is a central characteristic of the business leader

prototype. Moreover, we generate two novel overarching predictions based on this

position. First, if being White is an attribute of the business leader prototype, then

observers will assume that leaders more than non-leaders are White. Second, given that

prototypical leaders are evaluated more favorably than non-prototypical leaders (Eagly &

Karau, 2002; Ensari & Murphy, 2003; Nye & Forsyth, 1991; Phillips, 1984; Phillips &

Lord, 1982; Rush & Russell, 1988; Scott & Brown, 2006), and because we propose that

White leaders are perceived to be more prototypical than non-White leaders, race may

lead to biased evaluations of leadership through the process of leader categorization. That

is, leaders who are racial minorities receive worse performance evaluations than White

leaders because White leaders are perceived to be more similar to the leader prototype.

These race differences in the leader prototypes may help explain why leaders who are

members of racial minorities receive worse performance-related evaluations than White

leaders (see Cox & Nkomo, 1986; Ford, Kraiger, & Schechtman, 1986; Greenhaus &

Parasuraman, 1993; Greenhaus, Parasuraman, & Wormley, 1990; Jones, 1986; Powell &

Butterfield, 1997; Waldman & Avolio, 1991 for examples of race differences in

performance evaluations).

Certainly, there may be other explanations of differences in the evaluations of White and non-White leaders. For example, some studies of leadership effectiveness have demonstrated that group prototypes play a significant role in leadership evaluations (Hains, Hogg, & Duck, 1997; Hogg *et al.*, 2006; Martin & Epitropaki, 2001; Pierro *et al.*, 2005; Platow & van Knippenberg, 2001; Platow *et al.*, 2006; van Knippenberg & van Knippenberg, 2005). The more a leader represents the prototypical characteristics of a group to which the evaluators belong, the more favorably that leader will be evaluated. From this perspective, White evaluators will rate White leaders more favorably because White leaders are more prototypical of the evaluators' racial group. By contrast, a leadership prototype explanation would predict that, regardless of their racial group, evaluators will be likely to perceive White leaders more favorably than non-White leaders.

Alternatively, the more negative racial stereotypes of some minorities could also be used to explain race differences in leadership evaluations. From this perspective, Whites and Asian-Americans, who are both generally associated with positive racial stereotypes, such as smart, industrious, and ambitious (Hurh & Kim, 1989; Kitano & Sue, 1975; Lee, 1994), would be evaluated more favorably than Hispanic-Americans and African-Americans, who are frequently associated with negative racial stereotypes, such as lazy, ignorant, and incompetent (Burns & Gimpel, 2000; Devine & Elliot, 1995; Dixon & Rosenbaum, 2004; Krueger, 1996; Mackie *et al.*, 1996; Marin, 1984; Plous & Williams, 1995). Some evidence supports this stereotype explanation. Chung-Herrera and Lankau (2005) demonstrated that White evaluators identified a higher correspondence between the stereotypical characteristics of White and Asian-American

managers and the characteristics of a leader prototype than between the stereotypical characteristics of African-American and Hispanic-American managers and characteristics of a leader prototype. In other words, evaluations of managers could be due to difference in race stereotypes rather than fit with the leader prototype.

However, this negative racial stereotype explanation is not unique to leaders, as it has been shown to persist among evaluations of non-leaders as well. For example, empirical studies on aversive racism, a subtle form of racial bias that stems from negative race stereotypes, have demonstrated a consistent bias against racial minorities in favor of Whites in non-leadership positions (Aberson & Ettlin, 2004; Dovidio & Gaertner, 2000). By contrast, according to our leadership prototype prediction, the leader prototype includes the attribute "being White," not merely stereotypical characteristics that are associated with Whites in both leader and non-leader categories. Moreover, whereas a race stereotype explanation suggests that White and Asian-American leaders will be evaluated more favorably than African-American and Hispanic-American leaders, it is our prediction that White leaders are evaluated more favorably than Asian-American leaders as well.

Overview of Studies

Across four studies, we tested whether being White was part of the U.S. business leader prototype, and if so, how it might influence observers' leadership evaluations. The first two studies investigated whether individuals were more likely to assume that business leaders rather than non-business leaders were White, and whether assumptions about a leader's race were inferred from the leader prototype or from race base rates in the overall organization (i.e., the racial composition of the organization's members; Study

1), race base rates in organizational positions, the leader's business industry, or the race of the racial minorities in the organization (Study 2). The final two studies investigated whether a leader prototype explanation could best explain differences in White and non-White leader evaluations, by investigating the consequences of a leader's race for evaluations of leader effectiveness (Study 3) and leadership potential (Study 4).

These studies test our predictions with different sample populations (undergraduates, MBA students, and graduate students) evaluating leaders in different roles (project leader, division leader, CEO), across different industries (social services, financial services), and with different racial characteristics (White, Black, Hispanic, and Asian). Altogether, we think the data contribute to the connection between leader race and a business leader prototype, and have implications for workplace diversity, performance evaluation, and career management.

Study 1: Base Rates and Leader Race

This study tested the two structural principles of prototype development, whether being White was perceived as a central characteristic to the business leader prototype *(first principle)* and whether being White was perceived as less central to a non-business leader category, employees *(second principle)*. We examined which race characteristic observers would attribute to a target person when that person was described as a leader or employee. According to the literatures on category accessibility (Bruner, 1957; Kunda & Spencer, 2003) and representativeness (Kahneman, 2003; Kahneman & Tversky, 1973), individuals are more likely to describe a target person in ways consistent with the person's category membership. Specifically, in the absence of individuating information, when an observer encounters a target that is a member of a social group, the observer

may assume that the target has the qualities of the group prototype as opposed to having qualities that are unique to the target (for a review, see Kunda & Thagard, 1996). For example, an engineer may be assumed to be a tad bit geeky and to possess a mechanical-like writing style, even though these characteristics may or may not accurately describe the target. Thus, if being White is more closely associated with the leader prototype, then observers will be more likely to perceive a leader rather than a non-leader to be White.

Also, we wanted to investigate the strength of the leader prototype by pitting the predicted recognition-based processes specific to prototype use against conflicting information regarding a person's statistical likelihood (also known as base rate) of being White (Kahneman, 2003; Kahneman & Tversky, 1973). When predicting an individual's personal characteristics, the existing base rates of a given characteristic have been considered reliable determinants of a person's characteristics. For example, if an organization's members are 20% White and 80% Hispanic-American, then probabilistically, any given member is likely to be Hispanic-American. However, previous work has found that observers are more likely to maintain consistency between their activated categories and trait inferences (Kahneman & Tversky, 1973), ignoring information about base rates. Thus, if being White is associated with the leader prototype, then there should be no interaction between the target person's role (employee, leader) and base rate information, instead a main effect should occur whereby observers will consider leaders to be White more than non-leaders (e.g. employees), regardless of the base rate information (Hypothesis 1).

Furthermore, if being White is consistent with leader categorization, observers should perceive the leader to be White more frequently than the base rate would suggest.

In the absence of an activated prototype, information about the organization's base rates is likely to be a useful determinant of the target's likelihood of being White. As a consequence, if a prototype were not activated, then observers' assumptions of race should reflect the base rates; however, if the prototype were activated, then it would be under these conditions that assumptions of race should deviate from base rates. Thus, if being White is associated with the leader prototype, then observers will be more likely to deviate from base rates in the leader than in the non-leader (e.g. employee) conditions when assessing the race of the target (Hypothesis 2). Both hypotheses were tested in the following study.

Method

Participants and Study Design

A total of 146 undergraduate participants (68 White; 13 African-American; 21 Hispanic; 37 Asians; 6 Other, 1 did not respond) completed the study in exchange for extra credit in a business management course. At the time of the study, 60% of the participants were employed. Of the participants who reported not being currently employed, 95% had previously worked for a company or corporation (one person did not respond to this question). Participants' work experience did not predict the dependent measure in this study, whether alone or in interaction with the experimental manipulations, and thus, it will not be discussed further. The study consisted of a 2 (interviewee role: leader, employee) X 3 (race base rate: no information, 50% White, 20% White) between-participants design.

Procedure

Participants were instructed to read a newspaper article and answer questions about what they read. The article described a fictitious company project (Selcom Inc.'s Project NOVA) and included an interview with a business representative that described progress on a project as consistent with expectations (see the script for the manipulation in the Appendix). We manipulated the role of the organizational representative so that the representative was described as either the leader of the project or as an employee who worked on the project. We manipulated the racial composition of the organization such that the organization's workforce was comprised of employees who were either 50% White, 20% White, or no mention of the racial composition was provided. According to our leader prototype prediction, participants should be less likely to take into account the base rate information when determining the race of the person in the business leader category than in determining the race of the person in the non-business leader category (employee). For example, in the 20% condition, we expected individuals to attenuate their presumption that the leader was White less than their presumption that the employee was White.

After reading the article, participants answered questions that assessed the effectiveness of the interviewee role and base rate manipulations. Then, participants answered the question, "What do you think is the race of the person interviewed?" Participants could select one of the following randomized options: Hispanic/Latin-American, Asian/Asian-American/Pacific Islander, White/Caucasian-American, Black/African-American, or Native-American/Alaskan Native.

Results

All of the participants in the study correctly reported the manipulation checks for interviewee role and race base rates. Hypothesis 1 predicted that leaders would be perceived to be White more frequently than non-leaders would be perceived to be White regardless of the base rates. To test this prediction, participants' decisions about the interviewee's race were recoded to represent those who classified the interviewee as White (1) or non-White (0). Reclassifying the data in this way simplified analysis procedures allowing us to use binary hierarchical logistic regression analysis (Kleinbaum, 1994; see summary of the regression analysis in Table 1). The first step of the analysis revealed a main effect of the interviewee role manipulation ($B = -.76$, $SE = .38$, $p < .05$, $r = .17$).[1] In particular, independent of the base-rate manipulation, 72% of the participants perceived that the leader was White, whereas only 56% of the participants perceived the employee as White. In addition, the analysis revealed a main effect in the base rate condition ($Wald = 17.01$, $p < .001$, $r = .33$). Participants in the 20% condition perceived the interviewee was White less often ($23/52 = 44\%$) than did those participants in the no mention condition ($40/48 = 83\%$) or 50% condition ($33/46 = 72\%$). The interaction between interviewee role and base rates, which was tested in the second step of the logistic regression analysis, was not significant ($p > .36$). The presence of a base rate main effect illustrates that participants in the 50% White and 20% White conditions considered this information when making assumptions about the interviewee's race, but the absence of an interaction reveals that regardless of base rate, observers were more likely to perceive the leader than non-leader as White. Thus, Hypothesis 1 was supported.

Hypothesis 2 predicted that the participants would perceive the leader to be White more frequently than the 50% base rate or 20% base rate would suggest (i.e., deviate

from base rates), but this would not be the case for non-leaders (e.g., employees). That is,

we expected the observed differences in percentages to be significantly different from the

base rate in the leader conditions, but not in the employee conditions. We used *Z-tests* for

proportion to examine this specific prediction and Hypothesis 2 was supported. In the

50% base rate condition, participants presumed that the leader was White significantly

more often than the base rate would have suggested (18/22 = 82%; $Z = 2.23$, $p < .03$) but

this was not so when forming impressions of the employee (15/24 = 63%; $Z = 0.88$, $p =$

.38). A similar pattern was noted in the 20% base rate condition (for the leader: 14/28 =

50%, $Z = 2.35$, $p < .02$; for the employee: 9/24 = 37.5%, $Z = 0.54$, $p = .59$). These

analyses lend support to the prediction that participants relied more on a prototype to

form impressions of the interviewee's race in the leader condition but not in the employee

condition.

Discussion

The findings support the prediction that being White is an attribute of the business

leader prototype. First, independent of the organization's race base rates, leaders more

than employees were assumed to be White. This difference in leader perceptions provides

support for the first structural principle of prototype development, that being White is

characteristic of the business leader prototype. Second, in support of the second structural

principle, when the non-leader category was considered, the rate at which employees

were perceived to be White did not deviate from the race base rates, in the two conditions

where individuals were informed of race base rates. When Whites comprised a smaller

percentage of the employees in the organization, they were less likely to be perceived as

an employee. When Whites comprised a larger percentage of the employees in the

organization, they were more likely to be perceived as an employee. Thus, being White is not likely to be very central to the non-business leader category. Taken together, these results suggest that being White is an attribute of the business leader prototype. These findings are consistent with our predictions, and we sought to build more confidence into the reliability and generalizability of these effects by conducting a second study.

First, in addition to demonstrating that the structural principles of a leadership prototype are present, once a characteristic of a category has been identified as prototypical, inclusion of the characteristic as a prototype is also determined by comparing it to other stimuli (Rosch, 1973). In the case of a White leader prototype that would include the consideration of other races, such as Hispanic-Americans, Asian-Americans, and African-Americans. Second, U.S. businesses consist of a plethora of industries and it is possible that Whites may be perceived as prototypical leaders in some business industries, but not in others. Third, our sample consisted of undergraduates, and although most of the participants had work experience and likely were familiar with perceptions of leadership characteristics, a second, older and more experienced sample would increase the generalizability of our findings.

Study 2: Racial Minorities and Industry Type

This study sought to replicate Study 1 findings and to extend the findings in three ways. First, this study tested whether the type of racial minority in the firm affected individuals' beliefs that being White is a central characteristic to the business leader category. Different stereotypes are associated with different racial minorities. For example, Asian-Americans are generally regarded as the model minority (Hurh & Kim, 1989; Kitano & Sue, 1975; Lee, 1994), whereas Hispanic-Americans (Burns & Gimpel,

2000; Dixon & Rosenbaum, 2004; Marin, 1984) and African-Americans (Devine & Elliot, 1995; Krueger, 1996; Mackie *et al.*, 1996; Plous & Williams, 1995) are typically associated with more negative stereotypes. It could be that because of the negative stereotypes associated with racial minorities such as African-Americans and Hispanic-Americans, these racial groups may be particularly incompatible with the business leader category, but when firms comprise a significant population of less stigmatized minorities, such as Asian-Americans, individuals may be less likely to perceive that being White is a characteristic of the business leader category. Thus, based on the arguments associated with negative race stereotypes, business leaders will be perceived to be White more frequently than non-business leaders when Hispanic- and African-Americans are represented in the organization than when Asian-Americans are represented in the organization (Hypothesis 3a). However, if being White is a central characteristic of the business leader category as we predict, the perception of Whites as leaders more frequently than non-leaders will persist regardless of the racial minority that is present in the organization. Hence, business leaders will be perceived to be White more frequently than non-business leaders when Hispanic-, African-, and Asian-Americans are represented in the organization (Hypothesis 3b).

Second, whether a leader's race is viewed as central to the business leader category may be dependent on the type of business industry in which the leader works. Whites are especially visible in financial industries (GAO Report, 2006), whereas African-Americans (Dorsey, 2005; Jones, 1986; Maume, 1999) and Hispanic-Americans (Tienda & Mitchell, 2006) are often concentrated in community relations, human resources, the non-profit sector and service sector. Hence, it may be easier for observers

to recognize racial minorities as central to the business leader category when social service or non-profit sectors are considered. That is, Whites will be perceived to be leaders in the financial services industries more so than in the social services industries (Hypothesis 4a). However, if being White is central to the business leader category as we predict, the perception of Whites as leaders more frequently than non-leaders will persist regardless of the type of business industry. Thus, Whites will be perceived to be business leaders more so than business non-leaders in the financial services and social services industries (Hypothesis 4b). These competing hypotheses were tested in this study, which manipulated the type of business industry, the target's role (leader or non-leader), and the racial minority present in the organizational roles. In addition, the participants in this study had substantially more work experience than did the participants in Study 1 and thus this study investigated whether evidence collected in Study 1 would hold with this more experienced sample of individuals.

Method

Participants and Study Design

A total of 167 MBA students (118 White; 14 African-American; 5 Hispanic; 23 Asians; 7 Other) completed the study as a course requirement in a business management course. Although demographics for the particular participants in this study were not attained, the participants represented 41% of their MBA class, which in aggregate, had an average age of 29 years and 5.8 years of work experience. The study design consisted of a 2 (interviewee role: leader, assistant) X 2 (industry type: financial, social) X 3 (racial minority included in the base rate: African-American, Hispanic-American, Asian-American) between-participants factor design.

Procedure

Participants followed the same procedures as those described in Study 1 (see the manipulation script in the Appendix). However, three changes were made to the materials to accommodate the predictions. First, we manipulated the industry in which the fictitious company Selcom Inc. operated. Selcom Inc. was described either as a financial services provider or as a non-profit social services provider. Second, we held the level of base rates constant. Specifically, the base rate in this study remained the same across all of the conditions. We did, however, include a third factor that manipulated the racial minority group which comprised the base rates. Given that the strongest test of the White leader prototype prediction in Study 1 occurred when only 20% of the workforce was White, conservatively, we kept the base rate of 20% constant across all the conditions. Moreover, replicating the leader prototype effect under such extreme base rate conditions would be a more revealing test than using a more balanced base rate, such as 50%. We did, however, manipulate the type of racial minority in the base rate. The racial minority was described as 80% Asian/Asian-American, 80% Hispanic/Latin-American, or 80% Black/African-American.

Third, instead of referencing base rates for the entire organization (as we did in Study 1), the racial minority manipulation was situated in the context of the interviewee role. For example, in the Asian/leader condition, the racial composition was described as "Of the *project leaders* employed by Selcom, 20% are White/Caucasian whereas 80% are Asian/Asian-American." In the Asian/assistant condition, the racial composition was described as "Of the *project assistants* employed by Selcom, 20% are White/Caucasian whereas 80% are Asian/Asian-American." We did this so that participants would have

specific base-rate information about the organization position that they were evaluating as opposed to more general information about the overall workforce. The participants answered the same question from Study 1, "What do you think is the race of the person interviewed?" Participants could select one of the following randomized options: Hispanic/Latin-American, Asian/Asian-American/Pacific Islander, White/Caucasian-American, Black/African-American, or Native-American/Alaskan Native.

Results

A total of 157 of the 167 participants (94%) correctly reported manipulation checks on interviewee role, industry type, and racial minority. We assessed manipulation checks for interviewee role and industry type before assessing the key dependent variable; whereas, the manipulation check for the racial minority included in the base rate was assessed after the key dependent variable. This was done so as not to cue participants that the goal of the study may be race-related. Analyses conducted with and without the 10 individuals who failed one or more manipulation checks revealed the same outcomes across samples. Thus, the analyses presented here are on the full sample.

Just as in Study 1, responses to the interviewee race question were recoded as White (1) or non-White (0). Using standard procedures (Kleinbaum, 1994), this dichotomous variable was submitted to a binary hierarchical logistic regression analysis with interviewee role, industry type, and racial minority as between-participant factors (see the regression analysis in Table 2). Analysis revealed a significant main effect on interviewee role ($B = -.65$, $SE = .34$, $p = .05$, $r = .15$). Participants were more likely to believe that leaders (34/82 = 42%) rather than employees were White (23/85 = 28%). The analysis yielded no other main effects or interactions ($ps > .14$). Hence, leadership

perceptions did not vary by the third factor, racial minority group in the base rate, confirming Hypothesis 3b. Similarly, leadership perceptions did not vary by the type of business industry, confirming Hypothesis 4b.

In further support of our presumption that being White is a prototypical characteristic of leadership, participants in the leader conditions presumed that the leader was White significantly more often than the 20% base rate would have suggested ($Z =$ 2.98, $p = .003$), but this was not the case when the interviewee was an employee ($Z =$ 1.03, $p = .28$).

Discussion

Taken together, the results of Studies 1 and 2 support our first prediction that a characteristic of the business leadership prototype is being White. However, perhaps the effect could be due to the group prototype explanation (Hogg, 2001). If so, then participant's race would moderate the extent to which the leader would be perceived as White. That is, non-White observers would be less likely to perceive a leader prototype effect than White observers, and instead assume that leaders just as much as employees to be White. To test this alternative, we conducted post-hoc analysis with the participants from Studies 1 and 2. If the effects were due to a group prototype effect, then the interaction between participant's race and interviewee role should be significant. That is, Whites should be more likely to perceive the leader as opposed to the employee to be White; whereas racial minorities would be equally likely to consider the leader and employee to be White. By contrast, our leader prototype prediction would argue that being White is an attribute of the U.S. business leader prototype, and such prototypes are

evident regardless of the observer's race. Hence, the interaction between participant's race and interviewee role would not be significant.

Participants' assessments of interviewees' race were submitted to a logistic regression analysis with interviewee role and participant race (White, non-White) as predictors. Consistent with predictions, the analysis revealed a main effect of interviewee role (B = -.68, SE = .23, p = .004, r = .17), where leaders were perceived to be White (57%) more than non-leaders (41%). The analysis also revealed a main effect of participant race (B = .61, SE = .24, p = .01, r = .15). White participants were less likely to perceive that the interviewee (regardless of role) was White (81/186 = 43%) than were racial minorities (72/126 = 57%). However, the two-way interaction between interviewee role and participant's race was not significant (B = -.72, SE = .48, p > .12); White and non-White participants both perceived leaders more than non-leaders as White.

We also conducted the logistic regression analysis with participant's race as a five-level variable (White, Black, Hispanic, Asian, and Other) and interviewee role as between subject factors. This analysis revealed no significant effects of participant's race, either alone or in interaction with interviewee role (ps > .05). Finally, we conducted a set of post-hoc comparisons for each of the five participant race categories to determine whether any pairwise differences were revealed. Given that a five-level variable produces 10 different pairwise comparisons, ten significance tests were to be evaluated, which greatly increases the familywise error rate. Thus, to reduce the risk of making a Type I error (i.e., rejecting the null when the null should not be rejected), we set Alpha using a Bonferroni correction (.05/10 = .005; Abdi, 2007). Thus, effects would be considered significant if the p-values fell below .005. All tests involving pairwise comparisons of

race, and the interactions between pairwise race comparisons and interviewee role failed

to reach this level of significance. In fact, all but one comparison ($p = .02$) had

significance levels greater than $p = .05$. This evidence is consistent with our prediction

that the perception that leaders are White is a function of leader categorization processes

rather than a group prototype.

In sum, the first two studies lend support to the prediction "being White" is a

characteristic of the leader prototype. The next two studies sought to test our second

overarching prediction and investigate the potential implications of leader race for

leadership evaluations and whether a leader prototype explanation could account for

these effects. Specifically, we evaluated whether leader categorization could best explain

perceptions of leader effectiveness (Study 3) and leadership potential (Study 4).

Study 3: Evaluations of White and Non-White Leaders

Previous research has demonstrated that White managers are considered to have

greater career advancement opportunities than African-American managers (Greenhaus

& Parasuraman, 1993; Maume, 1999). For example, in a comprehensive longitudinal

study across an array of industries, Maume (1999) showed that when personal and job-

related factors were controlled, White men were 52% more likely to be promoted in their

careers than were African-American men. Maume described the advancement of White

men as *glass escalators* and those of African-American men as *glass ceilings*. We sought

to investigate whether race differences between Whites, African-Americans, and other

racial minorities in evaluations of leadership effectiveness could be explained by a White

leader prototype.

We predicted that observers, when evaluating profiles of leaders in organizations, would perceive White targets to be more effective leaders than racial minority targets and that this perception is due to leader categorization. That is, the favorable evaluations of Whites would occur because being White is more consistent with other pertinent prototypical leadership characteristics than being a racial minority. This prediction is derived from the recognition-based processes described in leadership categorization theory (Lord & Maher, 1991; 1990), whereby leaders are evaluated more favorably when the leader is perceived to be compatible with prototypical rather than non-prototypical characteristics, a prediction that has received a good deal of empirical support (Foti et al., 1982; Foti & Lord, 1987; Lord et al., 1986; Phillips, 1984), especially when salient identity characteristics, such as gender, have been considered (Eagly & Karau, 2002; Heilman et al., 1989; Lyness & Heilman, 2006; Nye & Forsyth, 1991; Schein, 1973; Scott & Brown, 2006). However, prototypical characteristics may not influence observers' perceptions if they are considered to be uninformative (Kunda & Spencer, 2003), such as when individuating information about specific events and circumstances are present (Leyens, Yzerbyt, & Schadron, 1992; Yzerbyt, Schadron, Leyens, & Rocher, 1994). That is, in addition to prototypical and non-prototypical characteristics, leader evaluations often entail individualized analysis or summaries of the leader's performance and such specific information may increase or decrease the relevance of the prototype in leader evaluations.

At first glance, it may be hard to believe that observers may rely on leader categorization processes at all when individualized information about the leader's performance record is available. However, existing theory and evidence suggests that the

leader prototype may still affect observers' impressions as long as it does not disrupt

comprehension or more specifically, conflict with other information they have (Kunda &

Spencer, 2003; see also Kunda et al., 2003). That is, when a target's categorization

conflicts with individualized information that an observer has about a target, observers

will not use prototypes and instead will rely only on the available individualized

information (Leyens, Yzerbyt, & Schadron, 1992; Yzerbyt, Schadron, Leyens, & Rocher,

1994). In contrast, prototypes may be more likely to affect observers' evaluations of the

target when the prototype categorization is perceived to confirm the individualized

information the observer has about the target person; thus, the prototype facilitates

comprehension (Kunda & Spencer, 2003).

     As applied to our work, we predict that the leader prototype will lead to higher

leader effectiveness ratings of White relative to non-White leaders, but only when the

leader prototype confirms and reinforces individualized information about the leader's

performance record, namely when the leader has led the organization to success. Some

evidence supports the idea that leadership prototypes are compatible with successful team

and organizational performances, as leadership effectiveness ratings are the highest when

groups and organizations have performed successfully (Meindl & Ehrlich, 1987; Nye,

2002; M. C. Rush, Phillips, & Lord, 1981; Weber *et al.*, 2001) and it is easier to associate

success with a prototypical leader than with a non-prototypical leader and subsequently

infer leadership effectiveness (Ensari & Murphy, 2003; Phillips & Lord, 1981, 1982).

However, when successful outcomes are considered, perceived responsibility for the

performance becomes an elementary part of the evaluative process (Meindl & Ehrlich,

1987; Meindl et al., 1985). When managers are viewed as responsible for successful

performances, then the perception that they are typical leaders is enhanced; but, if they are perceived not to be responsible for successful performances or responsible for poor performances, leader perceptions are lowered (Lord & Maher, 1991). Therefore, a White leader who is responsible for the success of the group or organization should be evaluated favorably because all three factors – race, organizational performance, and the appropriate attributions are all well-matched leadership characteristics.

Conversely, when the leader is not given credit for organizational success (i.e., it is attributed to external causes) or the leader's organization performs poorly, then the leader prototype is incompatible with the individualized information and it will not be used. Under such performance conditions, White and non-White leaders will be rated equivalently. Thus, consistent with leader categorization, we predict that there should not be differences in evaluations between White and non-White leaders except when successful performances are attributed to the leader.

White leaders may be rated more favorably than non-White leaders for reasons other than leader categorization. One alternative prediction that likely comes to mind stems from the negative stereotypes that are frequently associated with racial minority groups. For example, African-Americans are often stereotyped to be less determined and less competent than Whites. It is possible that a White leader may be evaluated more positively than an African-American leader because of these negative stereotypes. However, if the negative stereotype explanation is valid and given the existing research on comprehension and individuating information (Kunda & Spencer, 2003), we would expect the emphasis to be on the negative evaluation of non-White leaders (e.g., African-, Hispanic-, Asian-American) as opposed to the positive evaluations of White leaders.

Whereas the White prototype explanation is more likely to occur under conditions of success, the negative stereotype explanation would be more likely to occur under conditions of failure. That is, non-White leaders would be evaluated less favorably than White leaders only when the negative stereotype reinforced information about the leader's performance record, specifically that the non-White leader was responsible for organizational failure. Thus, based on the negative stereotype explanation, we predict a three-way interaction between race, organizational performance, and performance attributions: non-White leaders will be evaluated less favorably than White leaders, but only when they are blamed for unsuccessful organizational performance (Hypothesis 5a). However, based on our proposed White business leader prototype we predict a competing three-way interaction: White leaders will be evaluated more favorably than non-White leaders, but only when they are given credit for successful organizational performances (Hypothesis 5b).

Method

Participants

A total of 479 undergraduates (270 women, 209 men) participated in the study in exchange for course extra credit or $10 US. Of these participants, 131 were White, 75 were Black, 125 were Asian, 115 were Hispanic, and 33 classified their race as "Other."

Study Design

The study consisted of a 2 (organizational performance: failure, success) x 2 (performance attribution: internal, external) x 2 (leader race: African-American, White) between-subjects factorial design. The decision to focus primarily on African-Americans in this study as opposed to other racial minorities does not imply that one minority group

is more important than another. It does, however, reflect that in the context of racial bias, social science research contrasts African-Americans—more so than any other racial minority in the U.S.—to Whites.

Procedure

Participants were told that they were to complete a task called "Reading between the Lines," and that the ostensible goal of the study was to examine how people make inferences about the newspaper articles they read. After reading the article, participants answered some questions about the article's content. The article was supposedly about a company called Dosagen, its Chief Executive Officer (CEO), and the recent performance of the company. The article contained the experimental manipulations of organizational performance, performance attribution, and leader race. After reading one of the eight versions of the article, the participants completed the post-experimental questionnaire, were debriefed, and then dismissed (see the manipulation script in the Appendix).

Organizational performance. The corporation's performance was manipulated as either successful or unsuccessful. In addition, the company's earnings were described as having increased (i.e., successful performance) or decreased (i.e., unsuccessful performance), and a graph noting a percentage change in earnings over the past five months was also included. For successful performance, the graph displayed a steady increase in company earnings over a five month period. For unsuccessful performance, the graph displayed a steady decline over a five month period.

Attributions. Quotes provided by an industry analyst in the article manipulated attributions for organizational performance. Internal attributions were manipulated by placing the credit or the blame for the performance on the CEO. Accordingly, the

implication was that the CEO's abilities, behaviors and decisions accounted for the company's performance. External attributions were manipulated by assigning credit or blame for the performance on the marketplace. Hence, the economic context of the industry accounted for the company's performance and not the CEO. The primary sentence included in the text of the newspaper article that manipulated attributions read as follows: "The performance of the company should be attributed to the performance of the [CEO/marketplace], not to the performance of the [marketplace/CEO]."

Race of the CEO. The race of the CEO was manipulated by the name and a picture of the CEO. According to research conducted by Bertrand and Mullainathan (2004), Todd is a "White-sounding" name, whereas Tyrone is an "African-American-sounding" name. To determine that Tyrone was principally used as an African-American name and Todd was principally used as a White name, Bertrand and Mullainathan used name frequency data calculated from birth certificates. They then tabulated the names by race to determine which names were distinctly African-American and which were distinctly White. These two names, Todd and Tyrone, had two of the highest frequencies for the names tested in their respective categories, White names and African-American names. In addition, they conducted a survey in various public areas to assess the racial traits of the given names. The names led respondents to attribute Todd as White and Tyrone as African-American. These two racially identifying names were paired with the neutral-sounding last name Smith.

To make the race of the CEO more salient, a headshot of a CEO dressed in a suit was also provided. To ensure that the photographs of the African-American and White CEOs differed in terms of race but were similar on other potentially critical dimensions

that we thought could bias participants' evaluations of the leaders, a pilot test was

conducted. Thus, 25 participants from the same sample population as the participant pool

evaluated 10 photographs of male faces (5 African-American, 5 White) on race (to

confirm differences in race), age (to ensure comparability), and physical attractiveness

and emotional expression (to confirm that the selected photos would be equally attractive

and exhibit similar emotional expressions). Of the 10 photographs, two were selected

because they were clearly recognizable as African-American and White, were considered

similar in age, and were not different in ratings of physical attractiveness or their

emotional expression ($ps > .57$).

Leadership Effectiveness Measure

Participants were asked to evaluate the CEO on intelligence, competence,

confidence, and competitiveness (e.g., "I think the CEO is competent"). According to

Kirkpatrick and Locke (1991) and Lord et al. (1984), these are characteristics that have

been shown to represent effective leadership. These four items were measured on a 7-

point Likert-type scale anchored by 1 *(strongly disagree)* and 7 *(strongly agree)*. The four

items shared a univariate factor structure and inter-item consistency was high

(Cronbach's $\alpha = .88$). Thus, item ratings were averaged together, creating a single

composite leadership evaluation score, where higher scores indicated more effective

leadership. Scores ranged from 1 to 7 ($M = 4.72$, $SD = 1.13$).

Results

Manipulation Checks

Prior to assessing the primary dependent variable, leadership effectiveness,

participants' responded to two manipulation checks to confirm their awareness of the

organizational performance and performance attribution manipulations. Responses

confirmed that 99% and 97% of the sample correctly reported the organization's

performance and the performance attribution made by the industry analyst, respectively,

as reported in the news article. After participants answered the leadership effectiveness

questions, a final manipulation check evaluated participants' awareness of the CEO's

race with the question "What is the race of Mr. Smith, the CEO?" The participants were

given six choices: (a) Black/African-American, (b) Hispanic/Latin-American, (c)

Asian/Asian-American/Pacific Islander, (d) Native-American/Alaskan Native, (e)

White/Caucasian-American, or (f) Other. This question was placed near the end of the

post-questionnaire so as not to bias the measures of interest. Of the 479 students who

participated in the study, 94% correctly identified the leader's race. Given the high

reliability on the manipulation checks, we included all respondents in our final analysis.

In addition, analyses removing manipulation check failures revealed the same outcomes.

Leadership Effectiveness

Scores were submitted to a three-way analysis of variance with organizational

performance, attribution, and leader race as between-participant factors. Analysis

revealed a main effect for organizational performance, $F(1,471) = 270.86$, $p < .001$, $r = .60$, whereby leaders were considered more effective after an organization's success ($M = 5.40$, $SD = .96$) than failure ($M = 4.09$, $SD = .89$). Analysis also revealed a race main

effect, $F(1,471) = 3.92$, $p < .05$, $r = .09$, where White leaders were considered more

effective ($M = 4.78$, $SD = 1.13$) than African-American leaders ($M = 4.67$, $SD = 1.13$).

These main effects were qualified by two-way interactions between performance and

attribution, $F(1, 471) = 39.92$, $p < .001$, $r = .28$, and another between leader race and

attribution, $F(1, 471) = 3.95$, $p < .05$, $r = .09$. These in turn were qualified by a significant three-way interaction, $F(1, 471) = 6.68$, $p = .01$, $r = .12$. See the ANOVA results in Table 3.

The three-way interaction is presented in Figure 1. The first panel contains mean leader effectiveness ratings following organizational success, and the second panel contains ratings after organizational failure. To localize the effects of this three-way interaction, we conducted two-way interaction contrasts (Keppel, 1991) to determine whether interactions between leader race and attribution occurred within the failure condition as predicted by Hypothesis 5a or within the success condition as predicted by Hypothesis 5b. Within the success condition, analysis revealed a significant interaction between attribution and leader race, $F(1,471) = 10.09$, $p < .01$. Whereas African-American ($M = 5.19$, $SD = 0.94$) and White leaders ($M = 5.01$, $SD = 0.98$) were perceived to be equally effective when an external attribution was given for the organization's success, $F(1, 471) = 1.24$, ns, White leaders ($M = 6.04$, $SD = 0.62$) were considered more effective than African-American leaders ($M = 5.47$, $SD = 0.95$) when leaders were credited with the organization's success, $F (1, 471) = 10.85$, $p < .001$. Thus, Hypothesis 5b was supported. By contrast, within the failure condition, analysis here yielded no leader race by attribution interaction, $F < 1$. Rather, analysis yielded only an attribution simple effect, $F(1,471) = 10.99$, $p < .001$, where a leader's ratings were higher when organizational failure was blamed on the marketplace rather than on them. Thus, Hypothesis 5a was not supported. White leaders were evaluated more favorably than non-White leaders, but only when successful organizational performance was attributed to the leader.

Participant's Race as a Moderator?

According to a group prototype model of leader effectiveness (Hogg, 2001) or more generally, a social identification explanation (Tajfel & Turner, 1986), it is possible that individuals would be more likely to favor leaders from their own race over those from other races. If so, then White observers would replicate existing effects reported in the first panel of Figure 1, whereas African-American participants would be more likely to rate African-American leaders more favorably than White leaders. Thus, leadership effectiveness was resubmitted to the same analysis of variance, but with participants' race as a fourth between-participant factor. Analysis revealed that none of the effects involving participants' race was significant on leadership effectiveness, $Fs < 1.49$, $ps > .20$. The means reported in Figure 1 were consistent across participant race.

Discussion

Overall, the evidence in Study 3 is consistent with predictions derived from the leader categorization literature that have shown that prototypical leaders are evaluated more favorably than non-prototypical leaders after a clearly successful performance (Ensari & Murphy, 2003). We found that White leaders were evaluated more favorably than African-American leaders, but only when they were viewed as responsible for their organization's successful performance, and not when success was attributed to external explanations (such as the marketplace) or when the leader's organization had failed. These findings suggest that the difference in evaluations between White and non-White leaders came about because of a White leader prototype as opposed to negative stereotypes toward African-Americans. It also suggests that leader race will affect

observers' evaluations when these evaluations could matter most to the leader's career advancement, specifically when the leader has accumulated a record of success.

In addition, in further support that being White is an attribute of the leader prototype, we demonstrated that racial bias was not merely limited to a group-derived prototype on the part of White observers. Rather, observers were more likely to evaluate successful White leaders more favorably than successful African-American leaders regardless of the observers' race. The findings presented here provide support that Whites more than non-Whites are viewed as prototypical leaders and that these perceptions affected leadership evaluations. However, we conducted a fourth study to determine whether our findings were more generalizable and to specifically assess evaluator's perceptions of leadership potential, not merely leadership effectiveness.

Study 4: Leadership Potential of White and Non-White Leaders

The question posed in the first paragraph of the introduction asks: "What is preventing well-trained racial minorities from advancing within the organizational hierarchy to become leaders in U.S. companies?" To explicitly answer this question, we sought to demonstrate that racial bias due to leader categorization does not only occur once Whites and racial minorities are in leadership positions as demonstrated in Study 3, but also when they are being considered for career advancement opportunities. Thus, the central purpose of Study 4 was to test Hypothesis 5b with leadership potential as the variable of interest. That is, we sought to replicate Study 3 findings and examine evaluations of mid-level leaders that are considered for top leadership positions.

Also, we set out to accomplish three additional goals. First, we sought to rule out the possibility that participants in Study 3 were making their evaluations based on

characteristics attributed to names. Consistent with the research of Bertrand and

Mullainathan (2004), we chose to use names that are typically associated with racial

minorities and Whites to manipulate race. According to Kasof (1993), names that are

based on demographics can form impressions and communicate information such as

attractiveness, age, and even intellect. Accordingly, the names used to manipulate race

may have communicated attributes other than race. Second, Study 3 focused only on one

racial minority group, African-Americans. Although much of the research that examines

racial bias contrasts Whites to African-Americans, to demonstrate that a White prototype

of leadership persists in U.S. business settings, it would be useful to consider evaluations

of White leaders relative to leaders who belong to alternative racial groups, such as

Asian- and Hispanic-Americans. Third, to increase the generalizability of our findings,

we recruited a more experienced sample for participation in this study.

Method

Participants and Study Design

A total of 151 graduate students (106 White; 19 Hispanics, 14 Blacks, and 12

Asians and Others) completed the study as a course requirement in a business

management course or in exchange for snacks and a break from Basketball Ticket

Campout. Campout is a weekend long event where students "campout" so that they may

be included in a lottery system for basketball tickets. There were no differences in the

analysis between the data collected in conjunction with the management course and the

data collected at campout. Thus, the two sites will not be discussed further. The

participants (90 men; 61 women) had an average age of 27.33 years ($SD = 2.78$) and 4.53

years of work experience ($SD = 2.81$). Similar to Study 3, the study consisted of an

organizational performance (failure, success) x performance attribution (internal, external) x leader race (White, Hispanic, Asian) between-participants design.

Procedure

Participants were told that they were participating in a study called "Performance Evaluations," and the goal of the study was to evaluate personnel who were candidates for top positions within an organization. Participants were instructed to read a personnel summary which included a brief profile and performance summary of a consulting services team leader employed in a fictitious company Buygen Inc (see the script in the Appendix). Next, they were instructed to evaluate whether the team leader described in the profile had the potential to succeed if promoted to a more senior management position, specifically, a division leader within the organization. After reading the profile and performance summary, participants completed an evaluation of the target person described in the personnel summary that included manipulation checks and a measure of leadership potential.

Manipulations. The manipulations for organizational performance and attributions were similar to the manipulations in Study 3. First, the consulting team's performance was manipulated as either successful or unsuccessful. The team's performance was described as having increased or decreased. Second, comments in the performance appraisal were used to manipulate attributions to the team's performance. The primary sentence in the performance appraisal that manipulated internal and external attributions read as follows: "Last year's appraisal noted that the team's performance is due to the performance of the [marketplace/team leader], not to the [team leader/marketplace] and

state that 'it is the [availability of high profile clients in the marketplace/ team leader's management skills] that explains the team's performance record.'"

Unlike Study 3 which used a picture and a name to manipulate the race of the leader, the race of the team leader in this study was manipulated by a line item description in the personnel file. Under the label race, the target was described as White/European-American/Caucasian, Asian/Asian-American or Hispanic/Latin-American. A pilot test revealed that when only this race label was used to manipulate race (e.g., no picture or name as in Study 3) and when the manipulation check for leader race was assessed after the dependent variable of interest, a significant number of participants (approximately 20%; 16 out of 84 pilot test participants) failed the leader race manipulation check. Thus, to make the leader race salient, the leader race manipulation check (as well as the organizational performance and attribution manipulation checks) were assessed prior to measuring leadership potential.

Leadership Potential. The leadership potential measure was designed to evaluate participants' evaluations of the team leader's career expectations in the role of the division leader and used the following three items: "He has the competence to perform effectively in the division leader role;" "He has what it takes to lead others in a division successfully;" "He will be an effective division leader." Participants rated their level of agreement using a seven-point response scale (1 = *strongly disagree*; 7 = *strongly agree*). The items shared a univariate factor structure and inter-item consistency was high (Cronbach's α = .89). Responses were thus averaged together, and ranged from 1.0 to 7.0 (M = 4.17, SD = 1.06).

Results

Participants responded to three manipulation checks to confirm the team's performance, attributions made to the team leader, and the leader's race. A total of 97% of the participants correctly reported the team's performance, 99% correctly reported the attributions made to the leader, and 95% correctly reported the manipulation check that assessed the leader's race. Given the robustness of the manipulations, the total sample was included in the analysis. Further, the results are the same when the manipulation failures were not included.

Participant's race did not significantly influence the findings when included as a covariate or as a fourth factor; hence, it will not be discussed further. In addition, planned comparison tests using the entire sample that contrasted target Hispanic leaders with target Asian leaders in each of the performance and attribution conditions (i.e., internal/success, external/success, internal/failure, external/failure) yielded no significant differences. Thus, the Hispanic and Asian conditions were collapsed into one racial minority condition.

The leadership potential scores were submitted to an analysis of variance with organizational performance, performance attributions, and leader race as between-participant factors (see ANOVA results in Table 4). Analysis revealed a significant organizational performance main effect, $F(1,142) = 66.86$, $p < .001$, $r = .57$, and a significant two-way interaction between organizational performance and attributions, $F(1,142) = 38.23$, $p < .001$, $r = .46$. Both of these effects were qualified by a three-way interaction, $F(1,142) = 4.50$, $p = .04$, $r = .18$. Means and standard deviations are presented in Figure 2. Consistent with Study 3, within the success conditions, the interaction contrast was significant, $F(1,142) = 6.26$, $p = .01$, $r = .32$; whereas the

interaction contrast for failure was not significant, $F(1,142) = 1.18$, *ns*, $r = .05$. Moreover, simple effect comparisons revealed that White leaders ($M = 5.15$, $SD = .99$) received more favorable evaluations than racial minority leaders (M = 4.45, SD = 0.65), a significant difference, $F(1,142) = 6.53$, $p = .01$, $r = .21$, when success was internally attributed. However, White leaders ($M = 4.00$, $SD = 0.79$) were not evaluated more favorably than racial minorities ($M = 4.25$, $SD = 0.46$; $F(1,142) = .89$, *ns*) when success was externally attributed. Hypothesis 5b was thus supported: White leaders were rated more favorably than non-White leaders only when the team was successful and the leader deemed responsible for the success.

Discussion

These findings support the idea that racial bias in the leader prototype can influence evaluations of leaders and their likelihood of career advancement. Taken together with Study 3 findings, the career prospects of White targets were evaluated as higher than prospects for African-American, Hispanic-American *and* Asian-American targets. Race differences occurred only when the leader was given credit for organizational success, evidence that is consistent with the leadership prototype prediction. It is precisely under these conditions, when leaders are held responsible for their organization's successful performance, that leaders should be able to capitalize on their accomplishments and use their excellent achievements as stepping stones to advance their career and as evidence of their ability to handle additional responsibilities. However, it appears that White leaders may be advantaged when such career advancement opportunities are considered.

General Discussion

On the basis of leadership categorization theory, we predicted that Whites would be viewed as more prototypical leaders than racial minorities in United States business settings because the leadership prototype included the presumption that prototypical leaders were White. Across four studies, the evidence supported this overarching prediction. First, being White met the two structural principles of prototype development as prescribed by traditional categorization theory (Rosch, 1978) and leadership categorization theory (Lord & Maher, 1991). Being White was found to be more central to the business leader category and less central to the non-business leader category (employees). This finding persisted regardless of the base rate of the work force, the base rate of the racial minority that comprised the majority of the organization positions, and when situated in a financial services industry and a social services industry. Second, our findings revealed White individuals were perceived as more effective leaders and more likely to succeed than non-Whites, but that these differences occurred only when these leaders were viewed as responsible for an organization's success. These findings persisted regardless of whether the comparison leader race was African-, Hispanic-, or Asian-American, regardless of the participants' race, and across participants with both high and low levels of work experience. We interpret these noted differences to be consistent with a leadership prototype explanation of race differences.

These findings advance organizational research in two important ways. First, not only do these studies corroborate existing categorization processes of leadership and inferential views of leadership effectiveness, but they introduce the idea that a leader's race, and not merely the stereotypical traits associated with race, could influence the evaluative process. Previous research has shown that leadership categorization and

inferential processes of leadership provide efficient heuristics for appraising leaders because evaluators only have to compare a target leader with an existing knowledge base that includes prototypical traits and considers salient performance outcomes (Lord & Maher, 1991). Our findings suggest that the cognitive economy afforded by this simplistic evaluative process provides a way to efficiently and perhaps unintentionally evaluate White leaders as more likely to succeed and as more effective than racial minority leaders. Thus, we provide evidence that indeed there may be a White standard to which members of racial minorities are compared when leadership perceptions and leadership evaluations are considered.

Second, our findings offer a more in depth understanding of racial bias in leadership evaluations than what may be presumed by alternative perspectives, such as negative racial minority stereotype or group prototype explanations. Our findings are consistent with the overarching tenets of a negative stereotype explanation because White leaders were evaluated more favorably than racial minority leaders. However, contrary to the negative stereotype explanation, the results of Studies 3 and 4 suggest that the racial bias occurred because of a favorable leader prototype as opposed to a negative racial stereotype. It may be that negative racial stereotypes are less relevant in business contexts. For example, some research finds that under certain conditions, African-American businessmen are considered to be a positive subtype of a broader, global African-American racial stereotype (Devine & Baker, 1991). Further, empirical evidence based on current stereotype-based theories of subtle bias, such as aversive racism, suggest that negative bias against racial minority groups, such as African-Americans, is more likely to occur when it is not clear what sort of evaluation is normative and when

evaluations that stem from negative stereotypes can be justified or rationalized (Aberson & Ettlin, 2004; J. Dovidio & Gaertner, 2000; Frey & Gaertner, 1986; Murphy-Berman *et al.*, 1998). These vague conditions are less likely to be present when leaders are evaluated because the situational norms for performance appraisals and evaluations are more apt to be obvious and salient. We showed that it is when these norms are strong and evident that a White leader prototype will influence leadership ratings, such as when successful performance outcomes occur and attributions for performance are clear.

In addition, our findings offer a more extensive explanation of racial bias than would likely be proposed by a group prototype explanation (Hogg, 2001). Contrary to group prototype studies, the bias in favor of White leaders was evident by observers who belonged to other racial groups, including Asian-, Hispanic-, and African-Americans. Accordingly, African-Americans and Hispanic-Americans were just as likely as Whites and Asian-Americans to evaluate White leaders as more effective and more likely to have favorable career opportunities.

We must, however, note study limitations that could potentially hinder the generalizability of our findings. First, in Studies 3 and 4, we focused only on male leaders and did not include an evaluation of White female leaders or racial minority female leaders. Considerable research has examined how gender differences contribute to a male prototype of leadership (Brenner et al., 1989; Eagly & Karau, 2002; Heilman et al., 1989; Nye & Forsyth, 1991; Schein, 1973; Scott & Brown, 2006); thus, future research should consider how gender differences and racial differences intersect to possibly form a specific White *male* prototype of leadership. Second, our research was limited to the evaluation of fictitious leaders. Evaluations of actual leaders in top management positions

in organizations could differ as leaders in organizational setting have reputations and social relationships that may affect how they are perceived by observers. Third, the participants in our studies were students. The use of student participants may limit the generalizability of our findings. Our findings were consistent across student samples with little work experience and graduate student samples with a moderate amount of work experience (i.e., an average age of 4 to 6 years) who presumably would have been exposed to actual leaders in their occupations prior to attending graduate school. However, the findings may differ for sample populations in which the evaluators have a substantial amount of work experience.

Managerial Implications

In addition to contributing to organizational research, our findings may have managerial implications as well. Because organizational rewards and promotion to leadership roles are awarded based on leadership evaluations and our findings suggest that leadership evaluations are more likely to favor Whites than racial minorities, it follows that Whites may be more likely to be promoted to leadership positions more frequently than racial minorities. Accordingly, a multiplier effect may persist such that positive evaluations are given to White leaders, White leaders continue to be the prototype for effective leadership and correspondingly, racial minority leaders are continually disadvantaged. In order to disrupt this perpetual cycle, managers and organizational members have to be made aware of the cognitive biases that persist in leadership evaluations that may favor Whites and hinder racial minorities. Awareness alone may not "correct" the bias against racial minority leaders and in favor of White leaders, but it may lead to a better understanding of the perceived differences. Without a

thorough understanding of the skewed view of effective leadership, racial minorities will continue to be underrepresented in top leadership positions.

What should managers do when administering leadership evaluations? When continued racial disparity in positions of leadership persists in their organizations, managers should take a proactive stance, gauge the evaluative process, and ask the difficult questions, such as, why are Whites congregated in leadership positions and minorities are not? Do racial minorities in lower organizational positions have similar qualifications as do Whites who were promoted to top management? Is it possible to institute a blind review process that omits or substantially reduces racial considerations? If racial minorities consistently attain objective achievements, but those accomplishments are not reflected by good leadership ratings or positive leadership perceptions, managers should attempt to rectify this disconnect and consider the presence of cognitive biases that may favor Whites over racial minorities.

This study makes clear that the attitudes toward racial minority leaders and White leaders are complex and merit further investigation. Our results challenge the assumption that racial differences are no longer a critical issue in today's organizations (Hurley *et al.*, 1997). Although opaque racial barriers may no longer exist in U.S. organizations, transparent barriers likely persist that prevent racial minorities from rising to the most esteemed positions of leadership in corporate environments.

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Endnote

[1] To place effect size estimates into a common metric across studies and analysis procedures, we opted to use the "r family" of effect size estimates, where we estimated $r_{contrast}$ for analysis of variance (Rosenthal, Rosnow, & Rubin, 2000) and $r_{equivalent}$ for logistic regression analyses (Rosenthal & Rubin, 2003). Estimates had unsigned (and thus positive) directions, and could range from 0 to 1.

Table 1
Binary hierarchical logistic regression for perceptions of
leader race regressed on interviewee role and base rate (Study 1)

Variables	Step 0			Step 1			Step 2		
	B	*SE*	Wald	*B*	*SE*	Wald	*B*	*SE*	Wald
Constant	.65	.17	13.99***	.11	.33	.11	.00	.38	.00
Interviewee role				-.76	.38	3.90*	-.51	.57	.81
Base rate						17.01**			10.47**
Interviewee role*Base rate									.34

Note. *p < .05, **p < .01, ***p < .001. Interviewee role and base rate were treated as categorical variables for the analysis. The "leader role" condition was used as the reference point for the interviewee role manipulation tests and perceptions of leader race was coded dichotomously (1 = *white*, 0 = *other races*). Because it had three levels, tests of the base rate manipulation (either main effects tests, or tests of interactions involving this variable) did not have a single condition that represented a reference point; rather, the table contains the overall test of this variable, the Wald statistic.

Table 2

Binary hierarchical logistic regression for perceptions of leader race regressed on the type of racial minority included in the base rate, interviewee role, and industry type (Study 2)

Variables	Step 0			Step 1			Step 2			Step 3		
	B	*SE*	Wald	*B*	*SE*	Wald	*B*	*SE*	Wald	*B*	*SE*	Wald
Constant	-.66	.16	16.23***	-.05	.37	.02	-.20	.55	.13	-.56	.63	.80
Racial minority						2.78			.69			.57
Interviewee role				-.65	.34	3.64*	-.19	.66	.09	.43	.81	.28
Industry				-.24	.34	.48	-.20	.64	.10	.36	.77	.22
Interviewee role*Racial minority									.71			2.26
Industry*Racial minority									.22			.45
Industry*Interviewee role							-.34	.68	.25	-1.53	1.14	1.81
Industry* Interviewee role* Racial minority												1.84

Note. *p < .05, **p < .01, ***p < .001. Interviewee role, racial minority, and industry were treated as categorical variables for the analysis. The "leader role" was used as the reference point for the interviewee role manipulation tests, "social services" industry was used as a reference point for the industry manipulation, and perceptions of leader race was coded dichotomously (1 = *white*, 0 = *other races*). Because the manipulation had three levels, tests of the racial minority manipulation (either main effects tests, or tests of interactions involving this variable) did not have a single condition that represented a reference point; rather, the table contains the overall test of this variable, the Wald statistic. The racial minority group factor includes Asian/Asian-American, Hispanic/Latin-American, and Black/African-American.

Table 3

ANOVA analysis with leadership effectiveness on organizational performance, attributions and CEO's race as between subject factors (Study 3)

| Variables	$F(1,471)$	r
Intercept	13,757***	.98
Performance	270.86***	.60
Attribution	2.94	.08
Leader's race	3.92*	.09
Performance* Attribution	39.92***	.28
Performance* Leader's race	.16	.00
Attribution* Leader's race	3.95*	.09
Performance* Attribution* Leader's race	6.68**	.12

Note: The racial minority in this study is African-Americans; * $p < .05$, ** $p < .01$, ***$p < .001$.

Table 4
ANOVA analysis with leadership potential on organizational performance, attributions and CEO's race as between subject factors (Study 4)

| Variables	F(1,142)	r
Intercept	370.57***	.85
Participant's race	.90	.08
Performance	66.86***	.57
Attribution	1.61	.10
Leader's race	.08	.03
Performance* Attribution	38.23***	.46
Performance* Leader's race	1.98	.12
Attribution* Leader's race	2.08*	.12
Performance* Attribution* Leader's race	4.50*	.18

Note: The racial minorities in this study are Hispanic-Americans and Asian-Americans; * $p < .05$, ** $p < .01$, ***$p < .001$.

Figure 1. Mean ratings (and standard deviations) of leader effectiveness by organizational performance, performance attribution, and leader race (Study 3).

After Organizational Success

After Organizational Failure
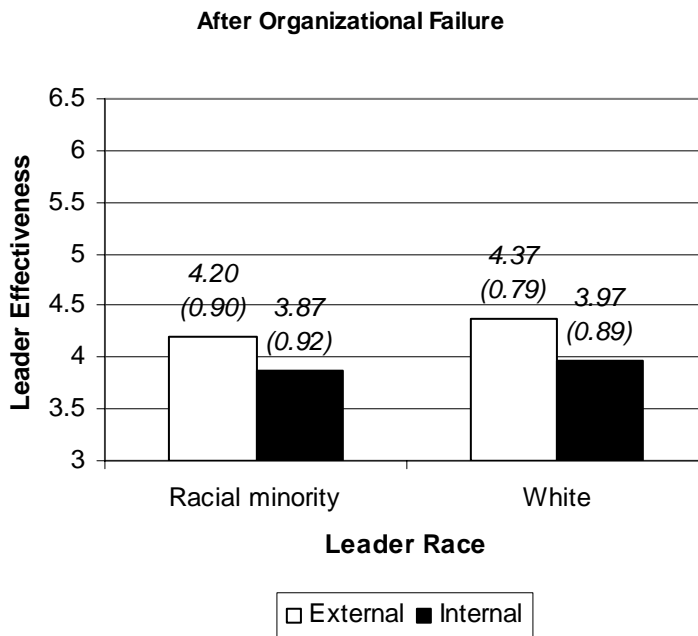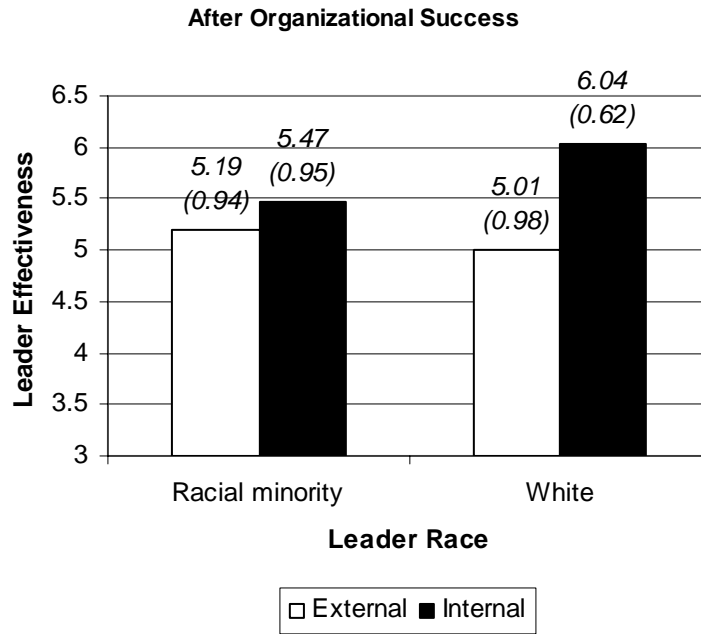
Note: The racial minority in this study is African-Americans.

Figure 2. Mean ratings (and standard deviations) of leader potential by organizational performance, performance attribution, and leader race (Study 4).

After Organizational Success

After Organizational Failure
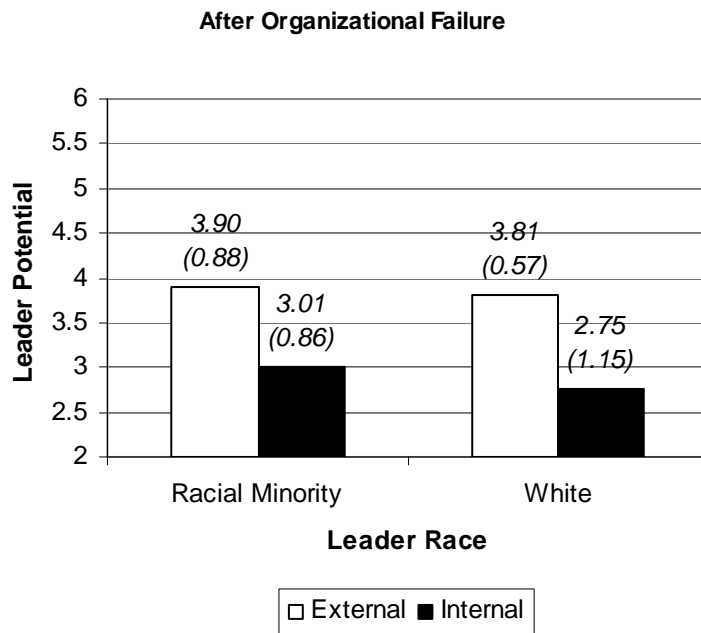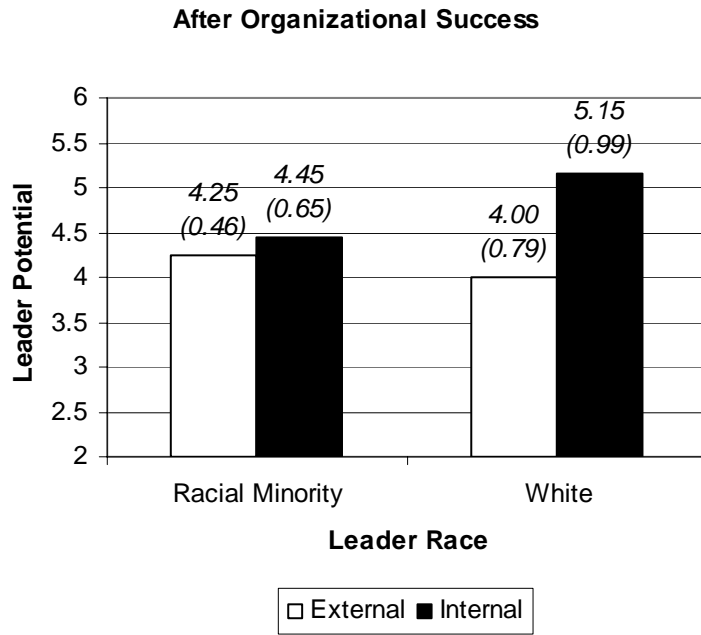
Note: The racial minorities in this study are Hispanic-Americans and Asian-Americans.

Appendix

Study 1 Manipulation Script

Selcom, Inc.'s Project NOVA

Selcom, Inc. recently announced an update on the progress of the project NOVA, an ongoing research program. In an interview with [an employee/the leader] of project NOVA, the team [member/ leader] claimed that project NOVA has maintained budget expectations and is progressing according to the anticipated timeline to be completed within the next five years. "I expect project NOVA to continue according to the schedule," commented the project [employee/leader]. "The development is no worse or better than what we expected."

Selcom's workforce is made up of several thousand employees who live and work in the United States. Of the workers employed by Selcom, [50% are White and/20% are White and] all are committed to serving the customers. *Please see* **NOVA.** *Page* **C7**

Study 2 Manipulation Script

Project Nova on Track
Associated Press

Selcom, Inc., *[a financial services provider/a non-profit social services provider]*, recently announced an update on the progress of the project NOVA, an ongoing research program. In an interview with *[the leader/an assistant]* of project NOVA, the *[leader/assistant]* claimed that project NOVA has maintained budget expectations and is progressing according to the anticipated timeline to be completed within the next five years.

"I expect project NOVA to continue according to the schedule," commented the project *[leader/assistant]*. "The development is no worse or better than expected.

Selcom's workforce is made up of several thousand employees who live and work in the United States. Of the project *[leaders/assistants]* employed by Selcom, *[20% are White/ Caucasian/ European-American whereas 80% are Asian/Asian-American and; 20% are White/ Caucasian/European-American whereas 80% are Hispanic/Latin American and; 20% are White/Caucasian/European-American whereas 80% are Black/ African-American and]* all are committed to serving the customers.
Please see **NOVA.** *Page* **C7**

Study 3 Manipulation Script

Reconsidering Dosagen Corporation's Earnings

By *Staff Reporter*

The financial state of Dosagen Corporation has changed since Todd [Tyrone] Smith arrived last May and [NOT] for the better.

Photo Here

At that time, Todd [Tyrone] Smith was hired as chief executive officer to lead the company through the tumultuous events and uncertain economic times. As of this month, company earnings have increased [DECREASED] 34% over the last 5 months (see Figure).

"There are clear explanations for what has happened to Dosagen Corp.," states Chris Johnson, chief analyst at Smith Barney Citigroup. "The performance of the company should be attributed to the performance of the CEO [MARKETPLACE], not to the performance of the marketplace [CEO]. For Dosagen Corporation, the responsibility for this performance clearly falls on Mr. Smith [THE ECONOMIC CONTEXT]

Please see **DOSAGEN CORP.** *Page* **C7**

Study 4 Manipulation Script

PERSONNEL SUMMARY

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

Marital status: Married

Gender: Male

Race: ***[White/European-American/Caucasian; Asian/Asian-American; Hispanic/Latin-American]***

Start date: October 2, 1998 (employed at Buygen, Inc. for 9 yrs)

Buygen 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 that there has been ***[a decrease/an increase]*** in the team's profitability as the consulting services team has experienced ***[a decrease/an increase]*** in the number of profitable projects completed each year. Last year's appraisal noted that the team's performance is due to the performance of the ***[marketplace/team leader]***, not to the ***[team leader/marketplace]***, and stated that "it is the ***[availability of high profile clients in the marketplace/ team leader's management skills]*** that explains the team's performance record."