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Mentorship racial composition and the judgments made by individuals external to the relationship

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Mentorship Racial Composition and the Judgments Made by Individuals External to the
Relationship

by

Laura F. Poteat

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts
Department of Psychology
College of Arts and Sciences
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Dedication

I dedicate this thesis to my parents, Victor and Mary Poteat, for their constant love, prayers, and support; to my brother, Paul Poteat, for his advice and encouragement; to my family and friends, for their loyalty; and to my Lord, who has shown Himself faithful to me in all things.

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ABSTRACT

The purpose of this study was to examine how the racial composition of a mentoring relationship influences three types of judgments made by individuals external to the relationship: (1) causal attributions formed to explain successful protégé performance; (2) evaluations of protégé career advancement potential; and (3) reward recommendations for the mentor and protégé. Additionally, the associations among causal attributions, evaluations of potential, and reward recommendations were investigated. A 2 (protégé race: white vs. black) x 2 (mentor race: white vs. black) factorial between-subjects design was used. Mentor and protégé races were manipulated within a written vignette. After reading the vignette, participants responded to items measuring their judgments about the mentor and protégé depicted in the vignette. The final sample consisted of 194 white, employed individuals. Overall, results did not support the hypothesized racial effects on the three types of judgments. However, support was found for the predicted associations among the different judgment types. Implications of these findings, as well as directions for future research, are discussed.

Chapter One

Introduction

As the workforce becomes more racially diverse, the prevalence of diversified mentoring relationships is expected to increase (Ragins, 2007). According to Ragins (1997), diversified mentoring relationships involve mentors and proteges who differ in one or more group memberships that are associated with power in organizations, such as race, ethnicity, or gender. With respect to race, a diversified mentoring relationship is composed of a racial majority member and a racial minority member, while a homogeneous mentoring relationship is composed of two racial majority members or two racial minority members. As explained by Ragins (1997), the terms minority and majority in this context refer to a group's possession of power rather than a group's numerical status. In the United States, there are few people of color in top organizational positions (Powell & Butterfield, 2002). Because these top positions are associated with power, people of color are considered the racial minority, while whites are considered the racial majority.

In response to the projected increase in diversified mentoring relationships, researchers have called for more research examining racial diversity and workplace mentoring (e.g., Ragins, 1997; Wanberg, Welsh, & Hezlett, 2003). One question of particular interest is whether racial minorities experience the same mentoring outcomes as do whites. Previous research using primarily Caucasian samples has found that both

mentors and proteges benefit from their mentoring relationships. For example, in a recent meta-analysis examining career outcomes associated with being mentored, Allen, Eby, Poteet, Lentz, and Lima (2004) found that proteges reported greater career advantages than did nonproteges, including greater career satisfaction, higher compensation, and more promotions. Although research from the mentor's perspective is less developed, Allen, Poteet, and Burroughs (1997) identified four categories of benefits received by mentors: builds a support network, self-satisfaction, job-related rewards that focus on the self, and job-related rewards that focus on others. Although research has demonstrated that both mentors and proteges receive benefits from mentoring, the answer to whether racial minorities receive fewer outcomes than whites is unclear.

One perspective that may be informative to the research examining race and mentoring outcomes was discussed by Ragins (1997) in her theoretical work on diversified and homogeneous mentoring relationships. According to Ragins (1997), individuals external to a mentoring relationship, such as other managers, supervisors, and peers, can influence the development and outcomes of the relationship. Therefore, it is important to examine how these individuals perceive and evaluate members of mentoring relationships. This is particularly relevant to research on race and mentoring because the way that individuals perceive and evaluate members of a mentoring relationship may differ depending on the racial composition of the dyad. Such differences may then have important consequences for the development and outcomes of the relationship. For example, if group stereotypes cause individuals to perceive a minority mentor as having less power than he/she really has, then individuals may attribute the protégé's successful performance to factors other than the mentor's grooming (Ragins, 1997). Such an

attribution may then decrease the benefits reaped by the mentor, such as the amount of organizational recognition received by the mentor.

The purpose of the current study is to contribute to the limited amount of research on race and mentoring by examining how the racial composition of a mentoring relationship influences the perceptions and evaluations formed by individuals external to the relationship. More specifically, this study investigates the causal attributions that individuals external to the mentoring relationship form to explain the performance of a successful protégé. In addition, the study examines how individuals external to the mentoring relationship evaluate the potential of, and allocate rewards to, the members of the relationship. While there are many possible racial combinations that could be examined, the current study focuses on perceptions and evaluations of mentoring dyads composed of black and white individuals. By examining how the judgments made by individuals external to a mentoring relationship about the mentor and protégé may vary with dyad racial composition, this study aims to make a valuable contribution to the research on racial diversity and workplace mentoring.

Attributions for Protégé Performance

When observing the performance of a protégé, individuals external to the mentoring relationship may form causal attributions to explain the performance. For example, individuals may attribute the performance to the protégé's ability or effort, the mentor's help, or to external factors. Research examining racial differences in performance attributions suggests that the racial composition of the mentoring dyad may influence the attributions formed to explain protégé performance. Differences in these attributions may have important consequences for the mentors and proteges involved.

The following section will provide a brief introduction to attribution theory, review the literature on racial differences in performance attributions, and discuss the implications for mentoring dyads with different racial compositions. This discussion will lead to the presentation of several hypotheses concerning how attributions are expected to differ by mentor and protégé race.

Attribution Theory: A Brief Introduction

Attribution theory deals with the process by which individuals form causal explanations for behavioral events (Kelley, 1967). According to Kelley, people examine how behavior covaries with possible causes and rely on three types of information to make causal attributions – distinctiveness, consistency, and consensus. Much of the research investigating the types of attributions that people make to explain the outcomes of achievement-related events has followed the classification system proposed by Weiner et al. (1972). According to this system, individuals use four causal attributions to explain achievement-related outcomes: ability, effort, task difficulty, and luck. These four attributions can be classified along the two dimensions of locus of control (internal vs. external) and degree of stability (stable vs. unstable). Within the locus of control dimension, ability and effort are considered internal causes, while task difficulty and luck are considered external causes. Within the stability dimension, ability and task difficulty are considered stable causes, while effort and luck are considered unstable causes.

The study of the attribution process in the context of the workplace is important because research has shown that the attributions formed by supervisors to explain subordinate performance are linked to important outcomes (e.g., Green & Mitchell, 1979; Greenhaus & Parasuraman, 1993; Heilman & Guzzo, 1978; Martinko & Gardner, 1987;

Pazy, 1986). For example, Heilman and Guzzo found that organizational rewards (pay raises, promotions) were judged as more appropriate when employee success was attributed to ability and effort than when success was attributed to luck or task difficulty. Taking a broader perspective, researchers have suggested that supervisors' causal explanations for subordinates' performance influence their behavior toward the subordinates in terms of evaluations, rewards, and punishments, as well as their expectations about subordinates' future performance (Martinko & Gardner, 1987; Green & Mitchell, 1979). Thus, it seems important to investigate the attributional process in the context of the workplace.

Racial Differences in Performance Attributions

While Kelley (1967) presented a rational information processing model to explain how individuals form causal attributions, there are a number of factors that can affect the ideal attributional process. For example, researchers have proposed that factors such as psychological closeness between the actor and observer and personal characteristics of the actor and observer (e.g., gender and race) can influence attributions (Green & Mitchell, 1979; Martinko, Douglas, & Harvey, 2006). Research examining the effect of race on the attributional process has found racial differences in the attributions formed to explain black and white performance. In general, white observers tend to form less favorable attributions for black performers than for white performers (e.g., Greenhaus & Parasuraman, 1993; Jackson, Sullivan, & Hodge, 1993; Yarkin, Town, & Wallston, 1982). On the other hand, results concerning the attributions formed by black observers appear to be less consistent, with some studies finding black-favoring responses (e.g., Chatman & von Hippel, 2001; Stephan, 1977, as reinterpreted by Hewstone, 1990), and

others finding no effect (e.g., Banks, McQuarter, & Pryor, 1977, as cited in Pettigrew, 1979; Whitehead, Smith, & Eichhorn, 1982). In the current study, the focus is on the perceptions and evaluations of white observers, and the discussion and hypotheses that follow are written from this perspective.

The most common explanation for racial differences in performance attributions is based on the role of stereotypes in the attributional process. Stereotypes are cognitive structures that contain an individual's knowledge, beliefs, and expectancies about the characteristics and behaviors of a particular group of people (Hamilton & Trolie, 1986). These cognitive categories influence how individuals perceive and evaluate members of the stereotyped group. In studies of racial stereotypes, it has been found that stereotypes of blacks often include assumptions of incompetence, and whites' expectations for black performance are often low (Pettigrew & Martin, 1987). Such findings stand in agreement with existing theory linking group membership to perceptions of competence. According to status characteristics theory, people infer an individual's characteristics and abilities and form performance expectations based on status characteristics such as age, sex, and race (Berger, Cohen, & Zelditch, 1972). Those high in status characteristics (e.g., males, whites) are assumed to possess greater task competence than those low in status characteristics (e.g., females, blacks; Nemeth, 1988). The expectations formed based on the possession of status characteristics influence perceptions and evaluations of the individual's actual performance.

In order to explain the racial differences in performance attributions, attribution theorists have proposed that stereotypes influence causal attributions by shaping individuals' expectations about performance (e.g., Greenhaus & Parasuraman, 1993;

Heilman, 1983; Jackson et al., 1993; Yarkin et al., 1982). For example, stereotypes characterizing blacks as incompetent may lead to expectations for poor performance. The type of attribution made then follows from a comparison of actual performance with the stereotype-based expectations for performance (Jackson et al., 1993). If an individual's actual performance is consistent with expectations, there is a tendency to attribute the performance to internal causes, such as ability (Heilman, 1983; Jackson et al., 1993). On the other hand, if performance is inconsistent with expectations, there is a tendency to attribute it to external causes (e.g., task difficulty and luck), or to internal, unstable causes (e.g., effort). Such attributions allow the observer to maintain his/her stereotypes and expectations about the performer (Heilman, 1983; Hewstone, 1990). Applying these propositions to the performance of black versus white employees, one would expect the successful performance of black employees to be more likely to be attributed to high effort, ease of the task, or good luck than the successful performance of white employees (Ilgen & Youtz, 1986). Additionally, one would expect the successful performance of white employees to be more likely to be attributed to the employees' ability than the successful performance of black employees.

In general, research has provided support for the above propositions. For example, Yarkin et al. (1982) manipulated the sex and race (black or white) of a target bank employee and asked white college students to make causal attributions for the employee's successful performance. Results showed that the success of white stimulus persons was more likely to be attributed to ability and less likely to be attributed to motivation than was the success of black stimulus persons. However, the black and white stimulus persons did not differ significantly in attributions to task difficulty or luck.

Upon examining the interactions of stimulus person race and sex, Yarkin et al. found that participants attributed greater ability, less effort, and less luck to the performance of the white male compared to the performance of the white female, black male, and black female. Overall, these findings provide some support for the propositions regarding the influence of racial stereotypes on performance attributions.

In another study, Jackson et al. (1993) asked white college undergraduates to rate the importance of several factors in explaining the weak or strong performance of a black or white college applicant. Contrary to expectations, they found that participants were not more likely to attribute strong white performance to ability than strong black performance. However, they did find that strong black performance was more likely to be attributed to the external causes of task characteristics and luck, as well as the internal, unstable cause of effort, than was strong white performance. According to Jackson et al., the finding that participants rated ability as important in explaining the strong performance of both white and black applicants may have been a function of the student sample, as the students may have favored attributing academic performance to internal causes. Overall, Jackson et al. concluded that their findings provided support for a preliminary model of the effects of stereotypes on attributions, in which stereotype-consistent performance is more likely to be attributed to internal causes, and stereotype-inconsistent performance is more likely to be attributed to external causes or to internal, unstable causes.

Although much of the research on racial differences in performance attributions has relied on the use of “hypothetical” stimulus persons, Greenhaus and Parasuraman (1993) designed a study using actual employees to examine the effects of race and gender

on the performance attribution process. Their sample consisted of black and white managers and their supervisors. The managers were matched on a number of background characteristics, including age, organizational tenure, job function, and organizational level. After rating the manager's job performance, the supervisors were asked to rate the importance of five factors in explaining the manager's performance. In addition to the four attributions included in Weiner et al.'s (1972) framework (ability, effort, task difficulty, and luck), Greenhaus and Parasuraman included the fifth attribution of help from others, because they believed that stereotypes may lead people to attribute successful minority performance to the efforts of others. Their results showed that black managers' performance was less likely to be attributed to ability and effort, and more likely to be attributed to help from others, than was white managers' performance. Thus, these findings provide additional evidence for the role of racial stereotypes in the attributional process and demonstrate that racial differences in performance attributions can be found in a field setting.

Also relevant to the discussion of racial differences in performance attributions is research on what Pettigrew (1979) termed the "ultimate attribution error". According to Pettigrew, when individuals explain the behavior of ingroup and outgroup members, they tend to make attributions that allow them to maintain their negative stereotypes about the outgroup. Thus, when an outgroup member performs a negative act, his/her behavior is likely to be attributed to internal, dispositional causes. On the other hand, when an outgroup member performs a stereotype-inconsistent positive act, an observer may attempt to explain away the positive behavior by attributing it to external, situational factors. Pettigrew proposed four possible attributions that may be used to explain the

positive behavior of an outgroup member, and Pettigrew and Martin (1987) described more specifically how these four attributions may be used by whites to explain successful black performance. According to Pettigrew and Martin, the first possible attribution occurs when white perceivers distinguish the successful black performer from other black individuals as an exceptional case. In this instance, the white perceiver attempts to differentiate the successful black from other black individuals, and may even exaggerate the black individual's positive qualities or use the successful black as proof against claims of organizational prejudice or discrimination. The second possibility is that whites may attribute black success to luck or to unfair special advantage. Thus, in this case, the success is seen as due to factors that are temporary or beyond the black individual's control, rather than as due to the black individual's own skills and abilities. The third way that whites may attempt to explain black success is by attributing it to extremely high motivation and effort. Such high effort may be seen by whites as unstable and as a way for the black individual to compensate for lack of talent or ability. Finally, the fourth possibility occurs when whites attribute black success to external situational factors, such as the availability of good equipment or the receipt of plentiful assistance. Again, such an attribution overlooks the possibility that the black individual's success is due to his/her own skills and abilities. Overall, each of these four possible explanations for black success allows white perceivers to maintain their original negative stereotypes of blacks.

In a review of the literature on intergroup causal attribution, Hewstone (1990) evaluated the level of support for Pettigrew's (1979) ultimate attribution error. In general, Hewstone found that attributions tend to favor ingroup over outgroup members.

More specifically, some studies have found that stronger internal attributions are made when members of the ingroup engage in positive behavior than when members of the outgroup engage in positive behavior. In addition, some studies have found that outgroup success is more likely than ingroup success to be explained away by attributing it to good luck, high effort, or task ease. Overall, Hewstone concluded that there was some support for Pettigrew's ultimate attribution error and the associated predictions. However, given that the evidence was not overwhelming, he also suggested using the more modest label of "intergroup attributional bias" to refer to this set of hypotheses.

In his review of the intergroup attribution literature, Hewstone (1990) also discussed the possible roles of cognitive and motivational factors in the intergroup attributional bias. With respect to cognitive factors, individuals may make attributions that allow them to maintain their stereotypes about members of certain groups. Thus, to explain expectancy-confirming behavior, individuals may rely on dispositional attributions, even to the exclusion of possible situational factors. On the other hand, to explain expectancy-disconfirming behavior, individuals may use more thorough attributional processing and may be more likely to attribute the behavior to situational factors. In his discussion of the potential motivational factors underlying the intergroup attributional bias, Hewstone referred to social identity theory (Tajfel & Turner, 1985). According to this theory, individuals define themselves in part by their group memberships and seek to maintain a positive social identity. Hewstone proposed that group members may use intergroup attributions to achieve, enhance, or protect a positive social identity, contributing to the observed bias in intergroup attributions.

To summarize, existing research reveals racial differences in the attributions made to explain black and white performance and provides support for the role of racial stereotypes in explaining these differences. In general, research has shown that the successful performance of whites is more likely to be attributed to internal causes, such as ability, than the successful performance of blacks. Additionally, compared to the successful performance of whites, the successful performance of blacks is more likely to be attributed to external causes, such as luck, task difficulty, and help from others, and to internal, unstable causes, such as effort. Such findings have important implications in the organizational setting, as researchers have also found evidence that the attributions formed by supervisors to explain their subordinates' performance are linked to valuable employee outcomes, such as pay raises and promotions.

Mentor and Protégé Race and Attributions for Protégé Performance

Results from research examining racial differences in performance attributions suggest that when individuals external to a mentoring relationship observe a protégé's performance, the causal attributions they form to explain this performance may vary as a function of the mentor's and protégé's race. In general, there are three basic elements to which an observer may attribute the protégé's performance: the protégé, the mentor, or external factors. The following sections present hypotheses regarding how attributions to each of these elements are expected to vary by mentor and protégé race.

Attributions to protégé ability and effort. Regarding the first possibility of attributing the protégé's performance to the protégé, an observer may attribute the performance to either the protégé's ability or to the protégé's effort. As discussed earlier, previous research has shown that white success is more likely to be attributed to ability

than is black success, while black success is more likely to be attributed to effort than is white success (e.g., Greenhaus & Parasuraman, 1993; Jackson et al., 1993; Yarkin et al., 1982). Thus, the following hypotheses are proposed:

Hypothesis 1. The success of white protégés is more likely to be attributed to protégé ability than is the success of black protégés.

Hypothesis 2. The success of black protégés is more likely to be attributed to protégé effort than is the success of white protégés.

Attributions to mentor help. The second possibility is that an observer may attribute the protégé's performance to the help the protégé received from the mentor. In their study of black and white managers, Greenhaus and Parasuraman (1993) found that the performance of black managers was more likely to be attributed to help from others than was the performance of white managers. When applied to the current context of mentoring, these findings suggest that an observer may be more likely to attribute the successful performance of a black protégé to the help received from the mentor than the successful performance of a white protégé. Furthermore, as explained by Ragins (1997), the mentor may be perceived as providing remedial attention to the black protégé. This leads to the following hypothesis:

Hypothesis 3. The success of black protégés is more likely to be attributed to the mentors' help than is the success of white protégés.

In addition to the protégé's race influencing attributions to help from the mentor, the mentor's race may also influence the degree that an observer attributes the protégé's performance to the mentor's help. As discussed by Ragins (1997), group membership, and the associated group stereotypes, influence perceptions of power and competence,

such that minority group members may be perceived as having less power and competence than they really possess. If black mentors are perceived as possessing less power or competence, they may be perceived as less able to meet their proteges' career needs (Ragins, 1997). As a result, black mentors may be seen as less responsible for and receive less credit for their proteges' successful performance. The following hypothesis reflects these ideas:

Hypothesis 4. White mentors receive more credit for the success of their protégés than do black mentors. In other words, the success of white mentors' protégés is more likely to be attributed to the mentors' help than is the success of black mentors' protégés.

When considering attributions to help from the mentor, not only may mentor and protégé race exert the main effects described above, but there may also be an interaction between mentor and protégé race. Specifically, the effect of protégé race may depend on the race of the mentor such that the effect of protégé race is stronger when the mentor is white than when the mentor is black. As discussed previously, individuals external to the mentoring relationship may hold stereotypes that lead them to believe that a black mentor lacks the power or competence to meet a protégé's needs, regardless of the protégé's race. In this case, the race of the protégé makes less of a difference, as the black mentor will receive little credit for the success of either a black or a white protégé. On the other hand, the race of the protégé may make more of a difference when the mentor is white and perceived as having the power and competence to meet the protégé's needs. Under these circumstances, protégé race may have a stronger effect on the degree to which individuals external to the relationship attribute the protégé's success to the mentor's

help, such that their attributions are stronger when the protégé is black than when the protégé is white. These ideas are summarized in the following hypothesis:

Hypothesis 5. The effect of protégé race on attributions of protégé success to the mentor's help depends on the race of the mentor, such that the effect is stronger when the mentor is white than when the mentor is black.

Attributions to external factors. When those observing a mentoring relationship attribute a protégé's performance to elements other than the mentor or protégé, they are making attributions to external factors. According to attribution theorists, observers may attempt to explain an individual's stereotype-inconsistent performance by attributing it to external, situational factors (e.g., Heilman, 1983; Hewstone, 1990; Pettigrew, 1979). Research on racial differences in performance attributions supports this proposition, finding that the stereotype-inconsistent performance of successful blacks is more likely to be attributed to external causes, such as luck and task difficulty, than is the stereotype-consistent performance of successful whites (e.g., Hewstone, 1990; Jackson et al., 1993). Applying these findings to the context of a mentoring relationship leads to the following hypothesis concerning attributions of protégé success to external factors:

Hypothesis 6. The success of black protégés is more likely to be attributed to external factors (e.g., luck or task difficulty) than is the success of white protégés.

When examining attributions of protégé success to external factors, it is important to consider the race of both the mentor and the protégé. In addition to the main effect of protégé race hypothesized above, there may be an interaction between mentor and protégé race. Specifically, the effect of mentor race on attributions of protégé success to external factors may depend on the race of the protégé, such that the effect of mentor race

is stronger when the protégé is black than when the protégé is white. When the protégé is white, individuals observing the mentoring relationship may be unlikely to attribute the protégé's success to external factors, regardless of the race of the mentor. Thus, mentor race would have little effect on the degree that the white protégé's success is attributed to external factors. On the other hand, when the protégé is black, the race of the mentor may have more of an effect on attributions to external factors. Specifically, when a black protégé is paired with a black mentor, individuals may be more likely to attribute successful protégé performance to external factors than when a black protégé is paired with a white mentor. This proposition is based on the idea that individuals holding negative stereotypes of black competency would be unlikely to attribute a black protégé's success to either the protégé or a black mentor, and would thus attribute the success to factors external to both members of the relationship. In contrast, if a black protégé is paired with a white mentor, the protégé's success may be attributed to a lesser extent to external factors because the white mentor may be seen as making a greater contribution to the protégé's success. Thus, attributions of protégé success to external factors would be greater when a black protégé is paired with a black mentor than when a black protégé is paired with a white mentor. Taken together, these ideas agree with Ragins' (1997) suggestion that if a mentoring dyad is composed of a minority mentor and a minority protégé, the protégé's successful performance may be attributed to extraneous factors. The following hypothesis summarizes these ideas:

Hypothesis 7. The effect of mentor race on attributions of protégé success to external factors depends on the race of the protégé, such that the effect is stronger when the protégé is black than when the protégé is white.

Attributions, Evaluations of Potential, and Reward Allocations

Within the context of the workplace, the importance of the causal attributions formed to explain the performance of others is seen in their influence on subsequent judgments. For example, past research has demonstrated associations between attributions and evaluations of managerial potential and promotability, as well as allocations of rewards (Allen, Russell, & Rush, 1994; Greenhaus & Parasuraman, 1993; Heilman & Guzzo, 1978; Pazy, 1986). With respect to the current study, this suggests that the attributions formed by individuals external to a mentoring relationship to explain the successful performance of a protégé may influence important judgments made by these individuals about the protégé and mentor. If the causal attributions vary with the racial composition of the mentoring relationship as hypothesized, judgments of potential and reward allocations may also vary with dyad racial composition, potentially resulting in differences in the benefits received by protégés and mentors for participating in a mentoring relationship. The discussion that follows reviews past research that has examined the link between attributions and evaluations of potential and reward allocations, and applies this information to the current study to form specific hypotheses regarding the association between attributions and judgments about protégés and mentors. Next, the section immediately following this discussion draws from these ideas to present hypotheses about how evaluations of potential and reward allocations are expected to differ between white versus black mentors and protégés.

Evaluations of Protégé Potential

In the literature examining the consequences of causal attributions in the workplace, researchers have reported an important association between the causal

explanations provided for an employee's performance and evaluations of that employee's managerial potential and promotability. Specifically, researchers have found that attributions to employee ability play an important role in these types of evaluations. For example, Heilman and Guzzo (1978) found that, when an employee's success was attributed to ability, raters evaluated the employee as having higher top management potential than employees whose success was attributed to effort, luck, or task difficulty. In a more recent field study, Greenhaus and Parasuraman (1993) found that ability attributions were positively related to assessments of promotability. A possible explanation for these findings is that the attributions raters form to explain an employee's performance influence the raters' expectations for the employee's future performance (Green & Mitchell, 1979; Weiner et al., 1972). If employee performance is attributed to stable causes, such as ability, it is perceived as likely to continue in the future (Green & Mitchell, 1979). Thus, an employee whose successful performance is attributed to his/her ability may be expected to perform at a high level in the future. Such expectations are likely to influence the rater's evaluation of the employee's career advancement potential. Specifically, attributions to ability are positively related to ratings of potential (Greenhaus & Parasuraman, 1993). Based on this explanation and findings from previous research, the following hypothesis is proposed:

Hypothesis 8. There is a positive relationship between attributions to protégé ability and ratings of protégé career advancement potential.

Allocation of Rewards to the Protégé

In addition to examining the association between causal attributions and evaluations of employee potential, researchers have also considered how attributions are

related to the allocation of various organizational rewards. In general, performance attributed to internal causes has been associated with greater reward allocations. For example, Heilman and Guzzo (1978) found that raters judged both a pay raise and a promotion as more appropriate rewards when an employee's successful performance was attributed to ability or effort rather than to luck or task difficulty. Furthermore, while raters judged a pay raise as equally appropriate for success due to ability or effort, they judged a promotion as more appropriate for success due to ability than to effort. Thus, attributions to ability appear to be associated with greater and more desirable rewards than do attributions to other causal factors. Pazy (1986) also found that raters perceived promotions to be more appropriate for ability-based success than for effort-based success. In another study examining the association between attributions and reward recommendations, Allen et al. (1994) found that attributions to ability were positively related to all six of their reward measures, while attributions to effort were positively related to only two of the six rewards. Thus, while both types of internal attributions are associated with greater reward recommendations, ability attributions appear to be more so. The explanation provided by researchers for this effect is similar to the explanation presented earlier for the finding that ability attributions are associated with evaluations of employee potential: When performance is attributed to stable causes, such as ability, it is perceived as likely to continue in a similar manner in the future. On the other hand, when performance is attributed to unstable causes, such as effort, it is more difficult to predict future performance. Because the allocation of rewards such as promotions involves judgments about an employee's ability to maintain high performance, decision makers may be more confident allocating such rewards to employees whose successful

performance is attributed to ability rather than effort. The following hypotheses are based on the results of previous research discussed above:

Hypothesis 9. There is a positive relationship between attributions to protégé ability and effort and protégé reward recommendations.

Hypothesis 10. Attributions to protégé ability are associated with greater reward recommendations than are attributions to protégé effort.

Allocation of Rewards to the Mentor

Individuals external to a mentoring relationship may also deem it appropriate to allocate organizational rewards to the mentor for his/her contributions to the performance of the protégé. Research examining the benefits of mentoring for the mentor provides support for this proposition. Quantitative studies investigating the actual career outcomes associated with being a mentor have found mentoring others to be related to both objective (salary, promotion rates) and subjective measures of career success (e.g., Allen, Lentz, & Day, 2006; Bozionelos, 2004). Although additional research is needed to test the processes by which mentoring others may relate to mentor career success, one of the processes proposed by researchers suggests that mentors may be rewarded by organizational decision makers who recognize their contributions to the organization. Case study and qualitative research lends support to this proposed process. For example, through in-depth interviews with mentors, Allen et al. (1997) found that mentoring was associated with increased organizational visibility and recognition for the mentors. Such visibility and recognition may enhance the mentor's prospects for receiving organizational rewards. Ramaswami and Dreher (2007) describe this process in more detail. According to these researchers, a mentor's visibility, reputation, and credibility

are enhanced by a protégé's successful performance. As others in the organization become aware of the mentor's ability to identify and promote talent, the mentor earns respect, admiration, and recognition for his/her contributions to the organization. Senior management may respond by showing a greater willingness to sponsor the mentor's other activities and by assigning additional protégés to the mentor. As a whole, these activities may result in career and salary attainment for the mentor.

This research on the benefits of mentoring for the mentor suggests that, when individuals external to a mentoring relationship observe a protégé's successful performance, they recognize and admire the mentor's contributions. However, as discussed earlier, the amount of credit given to mentors for their protégés' success is likely to vary across relationships (Ragins, 1997). Thus, the rewards allocated to mentors for their efforts may also vary. The association between the assignment of credit and the allocation of organizational rewards is supported by research. For instance, Crant and Bateman (1993) found that, when an actor was assigned a high level of credit for a successful performance, he received a greater allocation of rewards. When applied to the current study, these findings suggest that mentors who receive more credit for the successful performance of their protégés will receive greater reward allocations. This leads to the following hypothesis:

Hypothesis 11. There is a positive relationship between attributions to mentor help and mentor reward recommendations.

Mentor and Protégé Race, Evaluations of Potential, and Reward Allocations

The previous two sections have argued that there are racial differences in the causal attributions formed to explain protégé performance and that these attributions are

linked to evaluations of potential and reward allocations. When these two arguments are combined, it follows that there are racial differences in judgments of potential and reward allocations. Thus, the purpose of this section is to present specific hypotheses regarding how these judgments vary by mentor and protégé race.

Protégé Race, Evaluations of Potential, and Reward Allocations

According to Hypothesis 1, the success of white protégés is more likely to be attributed to their ability than is the success of black protégés. In contrast, Hypotheses 2, 3, and 6 predict that black protégé success is more likely than white protégé success to be attributed to protégé effort, mentor help, and external factors, respectively. As discussed earlier, attributions of success to ability appear to be the most favorable, in that they are associated with higher ratings of potential and greater reward allocations (Allen et al., 1994; Greenhaus & Parasuraman, 1993; Heilman & Guzzo, 1978). Thus, it seems reasonable to predict that individuals external to a mentoring relationship will provide higher ratings of potential and greater reward allocations to white protégés than to black protégés. Additional support for this prediction comes from field research examining racial differences in these kinds of judgments. For example, researchers have found whites to receive higher ratings of promotability than blacks (Greenhaus, Parasuraman, & Wormley, 1990; Landau, 1995) and have found whites to be more likely to be promoted than blacks (Elvira & Zatzick, 2002; Maume, 1999; Powell & Butterfield, 1997, 2002). Furthermore, some researchers have suggested that the possibility for racial bias to enter into evaluations of potential may be elevated due to the complex, subjective nature of such evaluations (Landau, 1995; Ruble, Cohen, & Ruble, 1984). Taken together, these ideas and findings lend support to the following hypotheses:

Hypothesis 12. White protégés receive higher ratings of career advancement potential than black protégés.

Hypothesis 13. White protégés receive greater reward recommendations than black protégés.

Mentor Race and Reward Allocations

According to Hypothesis 4, white mentors are expected to receive more credit for the successful performance of their proteges than are black mentors. Combining this proposition with past research that has found a positive association between assignments of credit and allocations of organizational rewards (Crant & Bateman, 1993) leads to the following hypothesis:

Hypothesis 14. White mentors receive greater reward recommendations than black mentors.

Chapter 2

Method

Participants and Design

The final sample consisted of 194 white, employed individuals, who worked at least 20 hours a week and had been employed in their current job for at least 6 months. Participants were recruited from five sources: (1) a national engineering consulting firm, (2) a pool of undergraduate psychology students, (3) two graduate-level business classes, (4) two medical industry call centers, and (5) a local government agency. Of the 194 participants that comprised the final sample, 101 were employees of a national engineering consulting firm, located in offices throughout the United States. Seventy one of the 194 participants were undergraduate students taking psychology courses at a large southeastern university. These students received course credit for their participation in this study. The final sample also included 11 students from two graduate-level business classes at the same university. A total of 6 employees from two medical industry call centers located in the Midwest and southeastern regions of the United States were included in the final sample. Lastly, the final sample included 5 employees from a government office located in the southeastern United States.

Overall, the final sample consisted of 115 females and 79 males. The average age was 34.48 ($SD = 13.27$) and the median level of education reached was a four-year college degree. Mean job tenure was 5.75 years ($SD = 5.95$) and the mean number of

hours worked per week was 39.48 ($SD = 10.62$). A variety of job titles and industries were represented in the sample. The majority of participants (68.0%) reported having experience in a formal and/or informal workplace mentoring relationship. More specifically, 17.0% reported having experience as a protégé only, 8.2% reported having experience as a mentor only, and 42.8% reported having experience as both a mentor and protégé. Furthermore, most participants (77.3%) reported having supervisory experience. The mean number of years of supervisory experience for this group was 8.07 ($SD = 8.52$). Thus, these data suggest that most of the participants had personal experience with the topics addressed in this study (i.e., mentoring, performance evaluations). Table 1 shows demographics by sample source.

The experiment was a 2 (protégé race: white vs. black) x 2 (mentor race: white vs. black) factorial between-subjects design. The races of the mentor and protégé were manipulated by using a written vignette, and participants were randomly assigned to one of the four experimental conditions. The final sample included 51 participants in the white mentor-white protégé condition, 47 participants in the black mentor-black protégé condition, 47 participants in the white mentor-black protégé condition, and 49 participants in the black mentor-white protégé condition. Table 2 presents the demographic characteristics of the participants in each condition, and Table 3 shows the number of participants from each sample source assigned to each condition.

Procedure

Across the five sample sources, a total of 1,261 individuals were recruited to participate in the study. All of these individuals were sent an email inviting them to participate in the study and providing them with a link to the online survey, with the

Table 1

Participant Demographic Characteristics by Source

Demographic characteristic	Source				
	Engineering firm	Undergraduate pool	Graduate classes	Call centers	Government office
<i>N</i>	101	71	11	6	5
No. of males, females	58 M, 43 F	13 M, 58 F	6 M, 5 F	0 M, 6 F	2 M, 3 F
Mean age (<i>SD</i>) ^a	42.39 (11.32)	23.51 (7.32)	30.36 (5.87)	31.20 (8.70)	43.00 (16.69)
Median education	4-year degree	2-year degree	Graduate work	Some college	Graduate work
Mean job tenure (<i>SD</i>) ^a	7.84 (6.60)	2.87 (3.51)	4.06 (4.17)	4.46 (3.25)	9.83 (7.58)
Mean hours worked per week (<i>SD</i>)	45.87 (6.21)	30.13 (9.20)	40.00 (10.00)	43.67 (4.97)	37.00 (9.75)
Percent with mentoring experience	78.2%	62.0%	27.3%	50.0%	60.0%
Percent with supervisory experience	87.1%	62.0%	90.9%	83.3%	60.0%

Note. Values enclosed in parentheses represent standard deviations. M = males. F = females.

^aAge and job tenure were coded in years.

Table 2

Participant Demographic Characteristics by Experimental Condition

Demographic characteristic	White mentor		Black mentor	
	White protégé	Black protégé	White protégé	Black protégé
<i>N</i>	51	47	49	47
No. of males, females	25 M, 26 F	19 M, 28 F	18 M, 31 F	17 M, 30 F
Mean age (<i>SD</i>) ^a	35.06 (15.39)	35.83 (13.92)	33.19 (12.04)	33.83 (11.44)
Median education	4-year degree	4-year degree	4-year degree	4-year degree
Mean job tenure (<i>SD</i>) ^a	4.85 (5.38)	6.35 (6.61)	4.94 (4.69)	6.98 (6.85)
Mean hours worked per week (<i>SD</i>)	38.53 (11.37)	38.40 (9.87)	41.06 (9.60)	39.94 (11.56)
Percent with mentoring experience	66.7%	70.2%	73.5%	61.7%
Percent with supervisory experience	80.4%	76.6%	77.6%	74.5%

Note. Values enclosed in parentheses represent standard deviations. M = males. F = females.

^aAge and job tenure were coded in years.

Table 3

Number of Participants by Source and Experimental Condition

Source	White mentor		Black mentor	
	White protégé	Black protégé	White protégé	Black protégé
Engineering firm	24	24	30	23
Undergraduate pool	19	19	15	18
Graduate classes	1	3	2	5
Call centers	4	0	2	0
Government office	3	1	0	1

exception of those individuals recruited from the medical industry call centers.

Individuals from the call centers were provided with a paper version of the study materials.

Each recruited individual received the form of the survey that corresponded to the experimental condition to which they were randomly assigned. After reading the informed consent and survey instructions, participants were asked to read a written vignette and complete the survey items. All responses were submitted to the researcher and were both anonymous and confidential.

A total of 498 surveys were returned to the researcher. Of these, 436 contained complete data, resulting in a response rate of 34.6%. Of the 436 completed surveys, 308 were submitted by participants meeting the study's inclusion criteria (i.e., white participants who worked at least 20 hours per week and had been employed in their current job for at least 6 months). Of these 308 participants, 194 correctly responded to the experimental manipulation and were included in the subsequent analyses. Table 4 shows the number of participants meeting each of these hurdles, broken down by source.

Materials

Participants were asked to complete a survey packet consisting of the informed consent, survey instructions, a written vignette, and measures assessing the study's dependent variables. In order to disguise the true purpose of the study, the survey instructions stated that the purpose of the study was to "examine formal workplace mentoring relationships".

After reading the survey instructions, participants proceeded to the written vignette, which was created to serve as the stimulus for the present study. A copy of the

Table 4

Number of Participants Meeting Criteria for Inclusion in Analyses by Source

Criterion met	Source				
	Engineering firm	Undergraduate pool	Graduate classes	Call centers	Government office
1. Recruited to participate in study	841	222	77	103	18
2. Returned survey to researcher	232	156	31	69	10
3. Completed required survey items	206	148	25	47	10
4. Met study inclusion criteria	174	100	16	11	7
5. Responded correctly to manipulation	101	71	11	6	5

vignette is provided in Appendix A. The vignette described the formal mentoring program developed by a fictitious financial institution (XYZ Bank). As explained in the vignette, this program was designed to match new bank branch managers with more senior-level branch managers. There were three qualities associated with the occupation of bank branch management that made it an appropriate choice as the context of the study's vignette. First, creating a vignette in which bank branch managers were involved in a formal mentoring program was realistic because such programs were actually found in the banking industry ("Best practices," 2006). Second, statistics reported by the U.S. Department of Labor (U.S. Department of Labor & U.S. Bureau of Labor Statistics, 2005) showed that women represented about half of those employed as financial managers, suggesting that the occupation of bank branch management was gender neutral. Third, although black individuals were underrepresented in managerial occupations, their presence in such careers was realistic. This assertion was supported by labor statistics, as well as research showing that individuals considered banking to be an occupation appropriate for both black and white individuals (e.g., Yarkin et al., 1982).

After a brief description of the bank's formal mentoring program, the vignette presented evaluations of the mentoring program purportedly provided by one mentor-protégé pair. These evaluations consisted of separate narratives from the mentor and protégé describing their experiences in the program. The manipulation of mentor and protégé race was embedded in these fictitious mentoring program evaluations by way of the mentor's and protégé's names. Previous research has used this method of manipulating a target person's race through his/her name (e.g., Bertrand & Mullainathan, 2004; Cuddy, Rock, & Norton, 2007). For the current study, "black" and "white" names

were chosen from lists provided by Bertrand and Mullainathan and by Levitt and Dubner (2005). These lists identified names that were distinctively white and distinctively black based on frequency data from birth certificates. Bertrand and Mullainathan also conducted a survey to confirm that individuals perceived the names on their lists as distinctively white or black.

To test whether individuals would assign the intended races to the mentors and protégés depicted in the current study's vignette, a pilot study was conducted. The pilot sample consisted of 68 white undergraduate students taking psychology classes at a large southeastern university who received extra credit for their participation. White and black names were chosen from the lists of Bertrand and Mullainathan (2004) and Levitt and Dubner (2005), and different forms of the survey packets representing the four experimental conditions were created. The packets were randomly distributed to the pilot participants. Participants were asked to complete the entire packet, which included items asking them to indicate the race of the mentor and protégé depicted in the vignette. Analyses showed that the percentage of participants that correctly identified the races of each of the chosen names ranged from 87.9% to 95.8%, which was deemed an acceptable level of correct identification.

Following the mentor and protégé evaluations of the mentoring program, the survey packet included an assessment of the protégé's job performance purportedly provided by the protégé's supervisor. The vignette explained that this assessment was a part of the mentoring program evaluation. The assessment was written in narrative form and was designed to portray the protégé as an above average performer. An above average level of protégé job performance was chosen based on previous research

suggesting that the level of performance must be sufficiently high in order to observe stereotypes operating (e.g., Greenhaus & Parasuraman, 1993). To test whether the assessment depicted an above average level of performance, a small pilot study was conducted. Five psychology graduate students were asked to read the fictitious assessment and rate the level of performance on a 7-point Likert-type scale ranging from 1 (significantly below average) to 7 (significantly above average). The mean of their responses was 6.2, with four of the five participants selecting the response option labeled “above average”. These results supported the assertion that the assessment depicted the desired level of performance.

Measures

Causal Attributions

A scale was developed to measure participants’ attributions for the performance of the protégé portrayed in the vignette. Participants were asked to indicate the extent that each of the following factors contributed to the performance of the protégé: protégé ability, protégé effort, mentor help, protégé luck, and task difficulty. The scale consisted of three items per causal factor, and responses were made on a 5-point Likert-type scale ranging from 1 (not at all) to 5 (great extent). A sample item from the protégé ability dimension is “The mentee’s high ability.” A sample item from the protégé effort dimension is “The mentee’s high effort.” A sample item from the mentor help dimension is “The help provided by the mentor.” A sample item from the protégé luck dimension is “The mentee’s good luck.” A sample item from the task difficulty dimension is “The mentee’s job is easy.” Scores on each causal factor were calculated by averaging item

responses. The coefficient alphas for each of the causal factor scales ranged from .76 to .95. All scales used in the present study are provided in Appendices B through F.

Career Advancement Potential

A 3-item scale was developed to measure participants' ratings of the protégé's career advancement potential. Responses were made on 5-point Likert-type scales with anchors specific to the items. A sample item includes "How would you rate the potential of the mentee for advancing to positions of greater responsibility in the company?" Scale scores were calculated by averaging item responses, with higher scores indicating higher ratings of protégé career advancement potential. The coefficient alpha for this scale was .83.

Reward Recommendations

The extent that participants would recommend the protégé and the mentor for various organizational rewards was measured using a modified version of the scale developed by Allen and Rush (1998). Using a 5-point Likert-type scale ranging from 1 (would definitely not recommend) to 5 (would recommend with confidence and without reservation), participants indicated the extent that they would recommend the protégé for the following rewards: salary increase, promotion, high profile project, public recognition (e.g., company award), and fast-track developmental program. The scale measuring mentor reward recommendations was identical to the protégé version, except the reward "fast-track developmental program" was replaced with "opportunities for executive development." Item responses were averaged to obtain separate overall reward recommendation scores for the protégé and the mentor. Allen and Rush reported a

reliability of $\alpha = .90$ for their scale. In the current study, the coefficient alphas for the protégé and mentor reward recommendations scales were .78 and .83, respectively.

Manipulation Check

The effectiveness of the racial manipulation was assessed by asking participants to indicate to which racial groups the mentor and protégé belonged. The response options were White/Caucasian and Black/African American. In order to disguise the true purpose of the study, these two items were located toward the end of the survey and were embedded in other items asking the participants to indicate to which gender and age groups the mentor and protégé belonged.

Participant Demographics

To determine whether participants met the inclusion criteria, they were asked to provide their race, their current employment status, the number of hours they worked per week, and the length of time they had been employed in their current job. Other demographic data was also collected, including information concerning participants' gender, age, education, job title, work industry, experience in workplace mentoring relationships, and supervisory experience. When responding to questions regarding their experience in workplace mentoring relationships, participants were provided with the definition of formal vs. informal mentoring used by Ragins and Cotton (1999).

Chapter Three

Results

Preliminary Analyses

Manipulation Check

Of the 308 participants that met the study's inclusion criteria (i.e., white individuals who worked at least 20 hours per week and had been employed in their current job for at least 6 months), a total of 281 indicated the correct gender (male) for both the mentor and protégé depicted in the vignette. Data from these 281 participants were used to examine the effectiveness of the racial manipulation by calculating the percentage of participants who correctly identified the intended races of the mentor and protégé in the vignette. Table 5 shows these percentages by target name. For purposes of comparison, Table 5 also shows results obtained from the pilot study.

As data from the primary study came in, it became apparent that the percentage of participants correctly identifying the race of Darnell was much lower than the percentage obtained during the pilot study (62.5% vs. 87.9%, respectively). Therefore, the decision was made to replace the name Darnell with the name DeAndre for the remainder of the data collection. However, this change only resulted in a minor increase in the percentage of participants correctly identifying the race of the target, from 62.5% to 66.7%.

In order to be included in subsequent analyses, participants had to correctly identify the intended races of both the mentor and the protégé depicted in the vignette.

Table 5

Percentage of Participants Identifying the Intended Race by Target Name

Name	Intended race	Role	N	Percent correct
Primary study				
Greg	white	mentor	128	85.9
Brad	white	protégé	140	90.7
Darnell	black	mentor	24	62.5
DeAndre	black	mentor	129	66.7
DeShawn	black	protégé	141	80.9
Pilot study				
Greg	white	mentor	35	94.3
Brad	white	protégé	20	90.0
Darnell	black	mentor	33	87.9
DeAndre ^a	black	mentor	-	-
DeShawn	black	protégé	24	95.8

Note. Percent correct represents the percentage of participants that correctly identified the race of the target. *N* = total number of participants who responded to the item asking them to identify the race of the target as either White/Caucasian or Black/African American.

^aThe name DeAndre was not tested during the pilot study.

Table 6 presents the percentage of participants who correctly identified the intended races of both targets, broken down by experimental condition. Results from the pilot study are also included for purposes of comparison. These data indicated that the percentage of participants who correctly identified the race of both targets was lower in the experimental conditions where the mentor was black. The data also revealed differences between the percentages obtained during the pilot study and those obtained during the primary study. Possible reasons for these differences will be offered in the Discussion. In total, 194 participants correctly identified the races of both targets, and their data were included in subsequent analyses.

Factor Analysis of Causal Attributions Measure

A principal axis factor analysis with oblique rotation was conducted to determine the number of dimensions underlying participant responses to the causal attributions items. Prior to performing the analysis, data screening procedures were conducted. Inspecting the correlations among the items and plotting a sample of item pairs revealed the presence of linear relationships among the items, thus supporting the use of factor analysis. Examining the univariate normality of each item revealed a lack of normality. Specifically, items designed to assess attributions to protégé ability and mentor help exhibited slight negative skew, with values ranging from $-.14$ to $-.48$; items designed to assess attributions to protégé effort exhibited a slightly larger negative skew, with values ranging from $-.71$ to $-.85$; and items designed to assess attributions to protégé luck and task difficulty exhibited relatively large positive skew, with values ranging from $.74$ to 1.69 . Although screening procedures revealed the presence of multivariate outliers, the decision was made to include these outliers in the analyses, as all item responses fell

Table 6

Percentage of Participants Identifying the Intended Races of Both Targets by

Experimental Condition

Condition	<i>N</i>	Percent correct
Primary study		
White mentor-white protégé	61	83.6
Black mentor-black protégé	74	63.5
White mentor-black protégé	67	70.1
Black mentor-white protégé	79	62.0
Pilot study		
White mentor-white protégé	12	75.0
Black mentor-black protégé	12	83.3
White mentor-black protégé	12	91.7
Black mentor-white protégé	8	100.0

Note. Percent correct represents the percentage of participants that correctly identified the races of both targets. *N* = total number of participants who responded to the items asking them to identify the race of the targets as either White/Caucasian or Black/African American.

within the possible range of values. Because factor analysis is a descriptive rather than inferential procedure, it is forgiving toward non-normality, and the decision was made to proceed with the analysis.

Based on the Kaiser rule, results of the factor analysis suggested that three factors may be worth interpreting. However, visual inspection of the scree plot and results of a parallel analysis indicated a five-factor solution. Thus, the five-factor solution was interpreted. Item assignment to factors was based on items having pattern coefficients greater than or equal to .30. Table 7 presents the five factors, 15 items, and rotated pattern coefficients, as well as item means and standard deviations. Results supported the five a priori dimensions of the causal attributions measure, with items contributing to the expected factors. Final communality estimates ranged from .46 to .91, indicating that the individual items were represented from a moderate to high extent by the five-factor solution. Correlations among the five factors ranged in absolute value from .05 to .60, with the largest correlations between the Task Difficulty and Protégé Luck factors ($r = .60$) and between the Protégé Effort and Protégé Ability factors ($r = .57$).

Checking MANOVA Assumptions

Prior to testing the hypotheses using MANOVA, the data were screened for violations of the assumptions of independence of observations, multivariate normality, and homogeneity of covariance matrices. The study was designed such that the assumption of independence was met by following the study's procedures. The data were examined for univariate and multivariate normality by examining plots, skewness and kurtosis values, and potential outliers by group. These procedures revealed a lack of univariate normality. Specifically, the distributions for attributions to protégé luck and

Table 7

Causal Attributions Factors, Items, and Pattern Coefficients

	Pattern coefficients						
Factor/item	1	2	3	4	5	<i>M</i>	<i>SD</i>
Factor 1: Task Difficulty							
15. The mentee's job duties are not very difficult.	.93	.02	.01	.00	-.02	1.57	.88
14. The tasks the mentee is required to perform are easy.	.92	.04	-.04	-.01	.01	1.58	.88
13. The mentee's job is easy.	.81	.13	.01	-.01	.01	1.51	.85
Factor 2: Protégé Luck							
10. The mentee's good luck.	.00	.92	-.01	.01	.01	1.80	.98
11. The mentee's good fortune.	.05	.90	-.01	-.04	-.02	1.80	.96
12. The mentee was in the right place at the right time.	.14	.72	.06	.03	.01	1.98	1.00
Factor 3: Mentor Help							
9. The mentor's valuable guidance.	-.02	-.07	.86	.00	.01	3.80	.79
7. The help provided by the mentor.	-.03	.01	.85	.02	-.02	3.72	.81
8. The mentor's support.	-.03	.09	.81	.00	.01	3.76	.75
Factor 4: Protégé Effort							
5. The mentee's hard work.	.01	.06	-.04	.87	.02	4.01	.77
4. The mentee's high effort.	-.06	-.04	-.02	.85	-.01	4.01	.74
6. The mentee's high motivation.	.02	-.03	.12	.69	.10	4.00	.76
Factor 5: Protégé Ability							
2. The mentee has the skills needed.	-.10	-.01	-.02	-.07	.74	3.69	.70
1. The mentee's high ability.	.04	.10	-.08	.14	.65	3.64	.71
3. The mentee's high level of competence.	.07	-.08	.10	.07	.61	3.78	.65
Eigenvalue	4.65	3.26	1.51	.82	.54		
Percent variance	46.2	32.4	15.0	8.1	5.4		

Note. Results are based on $N = 194$. Item numbers are indicated to the left of each item.

attributions to task difficulty were positively skewed, with skewness values ranging from .48 to 1.78. Screening procedures also revealed the presence of multivariate outliers; however, these outliers were included in subsequent analyses because all item responses fell within the possible range of values. Given the robustness of MANOVA against violations of normality, the decision was made to proceed with the analysis. A Box's M test was conducted to examine the assumption of homogeneity of covariance matrices. The test was significant ($\chi^2 = 148.32, p = .006$), suggesting that the homogeneity assumption may have been violated. However, given that the groups were relatively close in size, such a violation would have only minimal effects on the error rate. Thus, it seemed reasonable to proceed with the analysis.

Hypothesis Testing

Table 8 presents the means, standard deviations, coefficient alphas, and intercorrelations among the study dependent variables for the overall sample ($N = 194$). Tables 9 through 11 present the means and standard deviations by group (i.e., mentor race and protégé race) and by subgroup (i.e., mentor x protégé race). Tables 12 through 14 present the intercorrelations among the dependent variables by group (i.e., mentor race and protégé race) and by subgroup (i.e., mentor x protégé race).

A 2 x 2 factorial MANOVA was conducted to test hypotheses 1 through 7 and 12 through 14, which predicted main effects and interactions for mentor and protégé race on the study's dependent variables. Results of this multivariate test were not statistically significant for mentor race (Wilk's $\Lambda = .96, F(8, 183) = .87, p = .55$), protégé race (Wilk's $\Lambda = .94, F(8, 183) = 1.44, p = .18$), or the interaction of mentor and protégé race (Wilk's $\Lambda = .96, F(8, 183) = .91, p = .51$). Thus, these hypotheses were not supported, as

Table 8

Means, Standard Deviations, Alphas, and Intercorrelations Among Study Dependent

Variables

Variable	1	2	3	4	5	6	7	8
1. Protégé ability attribution	(.76)							
2. Protégé effort attribution	.51**	(.89)						
3. Mentor help attribution	.20**	.38**	(.89)					
4. Protégé luck attribution	.04	-.11	-.03	(.92)				
5. Task difficulty attribution	-.11	-.21**	-.14*	.63**	(.95)			
6. Protégé potential	.41**	.42**	.29**	-.06	-.21**	(.83)		
7. Protégé rewards	.32**	.25**	.23**	-.04	-.20**	.60**	(.78)	
8. Mentor rewards	.24**	.24**	.36**	-.10	-.21**	.34**	.57**	(.83)
<i>M</i>	3.70	4.01	3.76	1.86	1.56	3.81	3.91	3.82
<i>SD</i>	.57	.68	.71	.91	.83	.60	.62	.68

Note. Numbers in parentheses represent coefficient alphas. $N = 194$.

* $p < .05$. ** $p < .01$.

Table 9

Attributions, Evaluations of Potential, and Reward Recommendations as a Function of

Mentor Race

Variable	White mentor		Black mentor	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Protégé ability attribution	3.69	.55	3.71	.59
Protégé effort attribution	3.94	.70	4.07	.67
Mentor help attribution	3.74	.77	3.78	.66
Protégé luck attribution	1.93	.90	1.79	.92
Task difficulty attribution	1.61	.87	1.50	.80
Protégé potential	3.83	.61	3.80	.59
Protégé rewards	3.85	.66	3.96	.58
Mentor rewards	3.80	.71	3.84	.66

Note. $N = 98$ for white mentor group. $N = 96$ for black mentor group.

Table 10

Attributions, Evaluations of Potential, and Reward Recommendations as a Function of

Protégé Race

Variable	White protégé		Black protégé	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Protégé ability attribution	3.74	.61	3.67	.52
Protégé effort attribution	4.01	.75	4.00	.61
Mentor help attribution	3.74	.74	3.78	.68
Protégé luck attribution	1.75	.87	1.98	.94
Task difficulty attribution	1.42	.68	1.70	.95
Protégé potential	3.90	.56	3.72	.63
Protégé rewards	3.97	.59	3.83	.66
Mentor rewards	3.87	.64	3.77	.73

Note. *N* = 100 for white protégé group. *N* = 94 for black protégé group.

Table 11

Attributions, Evaluations of Potential, and Reward Recommendations as a Function of Mentor and Protégé Race

Variable	White mentor				Black mentor			
	White protégé		Black protégé		White protégé		Black protégé	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Protégé ability attribution	3.71	.61	3.67	.48	3.77	.61	3.66	.57
Protégé effort attribution	3.93	.77	3.96	.62	4.10	.73	4.04	.60
Mentor help attribution	3.68	.79	3.80	.74	3.80	.69	3.77	.63
Protégé luck attribution	1.72	.83	2.16	.92	1.78	.91	1.80	.94
Task difficulty attribution	1.46	.75	1.76	.97	1.37	.61	1.65	.94
Protégé potential	3.87	.53	3.78	.69	3.94	.58	3.66	.57
Protégé rewards	3.85	.63	3.86	.70	4.11	.52	3.81	.61
Mentor rewards	3.83	.61	3.76	.81	3.90	.67	3.78	.65

Note. $N = 51$ for white mentor-white protégé group. $N = 47$ for white mentor-black protégé group. $N = 49$ for black mentor-white protégé group. $N = 47$ for black mentor-black protégé group.

Table 12

Intercorrelations Among Study Dependent Variables by Mentor Race

Variable	1	2	3	4	5	6	7	8
1. Protégé ability attribution	-	.40**	-.05	.05	.00	.39**	.31**	.07
2. Protégé effort attribution	.63**	-	.33**	-.15	-.15	.50**	.24*	.15
3. Mentor help attribution	.43**	.42**	-	-.01	-.18	.33**	.26**	.18
4. Protégé luck attribution	.02	-.06	-.04	-	.61**	-.11	-.06	-.18
5. Task difficulty attribution	-.21*	-.26**	-.11	.64**	-	-.20	-.20*	-.30**
6. Protégé potential	.43**	.36**	.25*	-.01	-.22*	-	.54**	.19
7. Protégé rewards	.34**	.25*	.21*	-.01	-.19	.65**	-	.54**
8. Mentor rewards	.41**	.32**	.50**	-.01	-.13	.46**	.60**	-

Note. Correlations for the white mentor group appear below the diagonal. Correlations for the

black mentor group appear above the diagonal. $N = 98$ for the white mentor group. $N = 96$ for the black mentor group.

* $p < .05$. ** $p < .01$.

Table 13

Intercorrelations Among Study Dependent Variables by Protégé Race

Variable	1	2	3	4	5	6	7	8
1. Protégé ability attribution	-	.57**	.22*	.07	-.09	.42**	.29**	.13
2. Protégé effort attribution	.47**	-	.32**	.01	-.07	.45**	.23*	.17
3. Mentor help attribution	.19	.42**	-	-.00	-.06	.45**	.36**	.45**
4. Protégé luck attribution	.02	-.22*	-.06	-	.66**	.01	-.04	-.14
5. Task difficulty attribution	-.11	-.38**	-.26**	.58**	-	-.19	-.19	-.20
6. Protégé potential	.40**	.42**	.15	-.09	-.18	-	.68**	.37**
7. Protégé rewards	.35**	.28**	.13	-.01	-.18	.48**	-	.57**
8. Mentor rewards	.34**	.31**	.28**	-.03	-.20	.28**	.58**	-

Note. Correlations for the white protégé group appear below the diagonal. Correlations for the black protégé group appear above the diagonal. $N = 100$ for the white protégé group. $N = 94$ for the black protégé group.

* $p < .05$. ** $p < .01$.

Table 14

Intercorrelations Among Study Dependent Variables by Mentor and Protégé Race

Variable	1	2	3	4	5	6	7	8
White mentor								
1. Protégé ability attribution	-	.66**	.25	.05	-.18	.50**	.37*	.39**
2. Protégé effort attribution	.61**	-	.29*	.16	-.04	.46**	.25	.36*
3. Mentor help attribution	.55**	.50**	-	-.01	.01	.40**	.34*	.61**
4. Protégé luck attribution	.02	-.26	-.11	-	.56**	.03	.00	.03
5. Task difficulty attribution	-.25	-.50**	-.28	.72**	-	-.18	-.15	-.06
6. Protégé potential	.40**	.29*	.11	-.01	-.26	-	.67**	.45**
7. Protégé rewards	.33*	.26	.09	-.03	-.24	.63**	-	.60**
8. Mentor rewards	.45**	.30*	.39**	-.04	-.21	.48**	.61**	-
Black mentor								
1. Protégé ability attribution	-	.51**	.20	.09	-.02	.35*	.22	-.13
2. Protégé effort attribution	.31*	-	.37*	-.11	-.10	.46**	.21	-.08
3. Mentor help attribution	-.25	.30*	-	-.01	-.15	.52**	.38**	.22
4. Protégé luck attribution	.03	-.19	-.02	-	.76**	-.06	-.10	-.33*
5. Task difficulty attribution	.08	-.21	-.24	.44**	-	-.23	-.23	-.38**
6. Protégé potential	.40**	.55**	.18	-.17	-.09	-	.69**	.27
7. Protégé rewards	.38**	.28	.15	-.02	-.06	.32*	-	.52**
8. Mentor rewards	.23	.32*	.15	-.04	-.18	.10	.57**	-

Note. Correlations for white protégé groups appear below the diagonal. Correlations for black protégé groups appear

above the diagonal. $N = 51$ for white mentor-white protégé group. $N = 47$ for white mentor-black protégé group. $N = 49$

for black mentor-white protégé group. $N = 47$ for black mentor-black protégé group.

* $p < .05$. ** $p < .01$.

there was no support for racial differences in the causal attributions, ratings of potential, or reward recommendations made by participants.

Hypotheses 8 through 11 predicted relationships among causal attributions, ratings of protégé potential, and mentor and protégé reward recommendations. These hypotheses were tested by examining zero-order correlations. In support of Hypothesis 8, there was a positive association between attributions to protégé ability and ratings of protégé career advancement potential ($r = .41, p < .01$; see Table 8).

Hypothesis 9 was supported, in that attributions to protégé ability were positively related to protégé reward recommendations ($r = .32, p < .01$), and attributions to protégé effort were positively related to protégé reward recommendations ($r = .25, p < .01$).

Hypothesis 10 predicted that attributions to protégé ability would be associated with greater protégé reward recommendations than would attributions to protégé effort. To test this hypothesis, correlations between protégé ability and effort attributions and the individual rewards making up the protégé reward recommendations scale were examined (see Table 15). Whereas protégé ability attributions had significant positive relationships with four of the five rewards, protégé effort attributions had significant positive relationships with all five of the rewards. However, an examination of the magnitude of the correlations revealed that protégé ability attributions had higher correlations with three of the rewards (i.e., salary increase, promotion, and high profile project) than did protégé effort attributions. To determine whether these differences were significant, the Hotelling-Williams test was conducted. Results showed that the correlation between protégé ability attributions and promotion was significantly larger than the correlation between protégé effort attributions and promotion ($t(191) = 2.66, p = .009$). Results were

Table 15

Intercorrelations Between Attributions and Protégé Rewards

Variable	1	2	3	4	5	6	7
1. Protégé ability attribution	-						
2. Protégé effort attribution	.51**	-					
Protégé reward variables							
3. Salary increase	.30**	.17*	-				
4. Promotion	.33**	.15*	.58**	-			
5. High profile project	.30**	.24**	.40**	.41**	-		
6. Public recognition	.17*	.20**	.31**	.40**	.47**	-	
7. Fast-track developmental program	.11	.17*	.29**	.33**	.48**	.50**	-
<i>M</i>	3.70	4.01	4.23	3.89	3.91	3.72	3.79
<i>SD</i>	.57	.68	.77	.79	.89	.96	.86

Note. $N = 194$.

* $p < .05$. ** $p < .01$.

not significant for salary increase or high profile project. Thus, Hypothesis 10 received mixed support, in that protégé effort attributions were significantly associated with a greater number of rewards than were protégé ability attributions, but the magnitude of the correlation between protégé ability attributions and promotion was larger than that between protégé effort attributions and promotion.

Hypothesis 11 predicted a positive association between attributions to mentor help and mentor reward recommendations. As shown in Table 8, results supported this hypothesis, yielding a significant positive correlation ($r = .36, p < .01$). However, results differed according to the race of the mentor (see Table 12), such that the association between attributions to mentor help and mentor reward recommendations was significant when the mentor was white ($r = .50, p < .01$), but was not significant when the mentor was black ($r = .18, p > .05$). A test of the equality of these two correlations confirmed that the correlation between mentor help attributions and mentor reward recommendations was different for the white and black mentor groups ($z = 2.52, p = .006$). Additional analyses were conducted examining mentor race as a moderator of the association between mentor help attributions and mentor reward recommendations and are presented in the Supplemental Analyses section of this paper.

Supplemental Analyses

Comparison of Means Across Target Names

As explained previously, the decision was made during data collection to replace the name Darnell with the name DeAndre in an effort to increase the percentage of participants correctly identifying the race of the target. Thus, data collected using Darnell were combined with data collected using DeAndre in the final data set. A

MANOVA was conducted to determine whether the means on the set of dependent variables differed across these two names. Results were not significant (Wilk's $\Lambda = .91$, $F(8, 87) = 1.12$, $p = .36$), suggesting that the means did not differ.

Post Hoc Power Analysis

A post hoc estimation of power was conducted to explore the possible reasons for the nonsignificant results of the MANOVA performed to test hypotheses 1 through 7 and 12 through 14. Results of the power analysis revealed poor power for detecting differences on the dependent variables, with power estimates of .40 and .64 for the main effects of mentor and protégé race, respectively, and a power estimate of .42 for the interaction of mentor and protégé race. One reason for this poor power may have been inadequate sample size. An a priori power analysis had suggested a need for 84 participants per group, for a total sample size of 336, to achieve a power of .80. However, after excluding participants who did not meet the study's inclusion criteria and participants who did not respond correctly to the manipulation, the current study's final sample size was only 194. Another reason for the observed poor power may have been small effect sizes. Multivariate η^2 values were small, ranging from .037 to .059, which suggest that mentor and protégé race accounted for little of the variance in the set of dependent variables. Furthermore, when effect sizes were calculated for each of the hypothesized main effects of mentor and protégé race on the study dependent variables, the obtained values were small in size (Cohen's $d = .02$ to .34).

Mentor Race Moderator Analysis

In order to examine mentor race as a moderator of the association between mentor help attributions and mentor reward recommendations, hierarchical multiple regression

was used. Mentor race was coded as a dummy variable (0 = white mentor, 1 = black mentor). The mentor help attributions variable was standardized in order to aid in interpretation and reduce potential problems associated with multicollinearity (Frazier, Tix, & Barron, 2004). Mentor help attributions and mentor race were entered in the first step of the equation. The interaction term (the product of mentor help attributions and mentor race) was entered in the second step. The dependent variable was mentor reward recommendations.

Prior to interpreting the results of the analysis, the data were examined to determine whether the assumptions of the multiple regression model had been met (Aguinis, 2004). Based on the correlation coefficient and a plot of the variables, the relationship between mentor help attributions and mentor reward recommendations appeared linear. Plots of the residuals revealed that the assumptions of homoscedasticity and normality had been met. Correlations among the predictors revealed less than complete multicollinearity. Results of Bartlett's M test indicated that the homogeneity of error variance assumption had been met ($M = .28, p = .59$). Furthermore, the error variance ratio was 1:1.11, which meets the rule of thumb derived by DeShon and Alexander (1996), providing additional evidence that homogeneity was met. Taken together, these results indicated that the assumptions of the multiple regression model were met.

Results of the hierarchical multiple regression are presented in Table 16. The addition of the interaction term resulted in a significant R^2 change of .02, $F(1, 190) = 4.47, p = .04$, supporting the presence of the moderating effect of mentor race. A graph of the interaction was created to show the relationship between mentor help attributions

and mentor reward recommendations for white and black mentors (see Figure 1). To create this graph, low and high values of mentor help attributions and mentor race were substituted into the final regression equation, and the resulting predicted values for mentor reward recommendations were plotted. The low value for mentor help attributions was one standard deviation below the mean, and the high value was one standard deviation above the mean. The low value for mentor race was 0 and the high value was 1, based on the dummy coding used to represent white and black mentors, respectively. As shown in the graph, results indicated that the relationship between mentor help attributions and mentor reward recommendations was stronger for white mentors than for black mentors.

An additional analysis was conducted to test the significance of the slopes of the simple regression lines for each group. As explained by Frazier et al. (2004), “when regression equations contain interaction terms, the regression coefficient for the predictor represents the relation between the predictor and outcome when the moderator has a value of 0” (p. 125). Thus, in the original regression analysis, when the white mentor group was coded as 0, the coefficient for mentor help attributions represented the relationship between mentor help attributions and mentor reward recommendations for the white mentor group. Results from this analysis indicated a significant positive slope for the white mentor group ($B = .33, p < .001$). To determine whether the slope of the regression line for the black mentor group was significant, an additional regression analysis was conducted, in which the black mentor group was coded as 0 and the white mentor group was coded as 1. Results indicated that the slope for the black mentor group did not significantly differ from zero ($B = .13, p = .07$). Thus, there was a significant

Table 16

Hierarchical Multiple Regression Results for Mentor Reward Recommendations

Step and variable	<i>B</i>	<i>SE B</i>	95% CI	β	ΔR^2
Step 1					
Mentor help attribution	.33	.06	.21, .44	.48**	
Mentor race	.03	.09	-.15, .21	.02	.13**
Step 2					
Interaction term	-.20	.09	-.38, -.01	-.19*	.02*

Note. White mentor coded 0, black mentor coded 1. *B* = unstandardized regression

weights for the final equation. β = standardized regression weights for the final equation.

CI = confidence interval. *N* = 194.

* $p < .05$. ** $p < .001$.

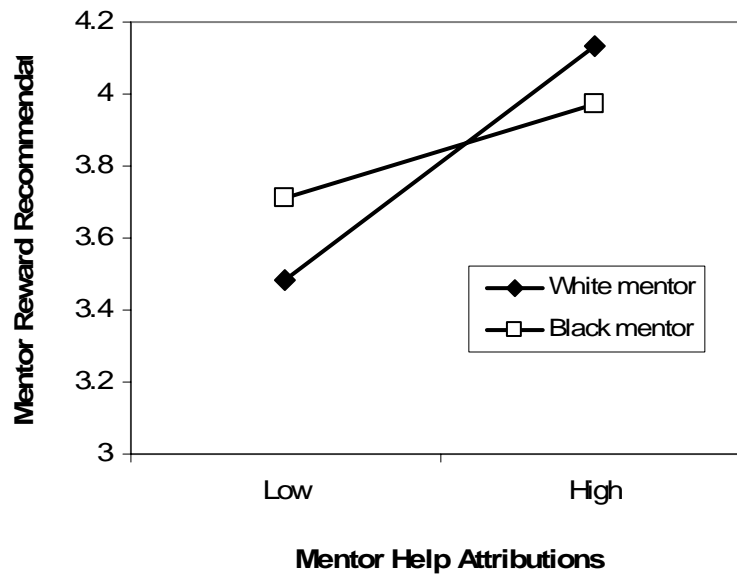


Figure 1. Interaction of mentor race and mentor help attributions on mentor reward recommendations.

relationship between mentor help attributions and mentor reward recommendations when the mentor was white, but not when the mentor was black.

Chapter Four

Discussion

The purpose of the current study was to examine how the racial composition of a mentoring relationship influences three types of judgments made by individuals external to the relationship: (1) causal attributions formed to explain successful protégé performance; (2) evaluations of protégé career advancement potential; and (3) reward recommendations for the mentor and protégé. Overall, results do not support the hypothesized racial differences in these judgments. However, results do provide support for hypotheses concerning the associations among these judgments. Furthermore, findings suggest that mentor race may moderate one of these hypothesized associations. Results are discussed in more detail in the sections that follow.

Racial Differences in Judgments: Hypotheses 1 through 7 and 12 through 14

Hypotheses 1 through 7 predicted racial differences in the causal attributions formed to explain successful protégé performance, and Hypotheses 12 through 14 predicted racial differences in ratings of potential and reward recommendations. However, results do not support these hypotheses, failing to find significant racial differences in the judgments under investigation. These results conflict with previous research, which has shown racial differences when using both experimental and nonexperimental designs (e.g., Greenhaus & Parasuraman, 1993; Jackson et al., 1993; Yarkin et al., 1982).

One possible explanation for the current study's findings is poor statistical power for detecting racial differences. A post hoc power analysis revealed poor power, and although one reason for this poor power may have been inadequate sample size, another reason may have been small effect sizes. In fact, the effect sizes found in the current study are smaller than those found in previous experimental research (Jackson et al., 1993; Yarkin et al., 1982).

There are a few possible explanations for why the racial effects found in the current study are smaller than those obtained in previous research. First, the racial manipulation used in the current study may have been less effective than the racial manipulations used in previous studies. For example, whereas 100% of the participants in Yarkin et al.'s (1982) study and 98% of the participants in Jackson et al.'s (1993) study correctly identified the race of the target, only 69% of the participants in the current study correctly identified the race of both targets. As a result, a larger percentage of participants in the current study had to be excluded from the analyses. It is possible that those excluded differed from those included in important ways, which may have affected the results and led to the smaller effect sizes found in the current study. Additionally, the larger percentage of participants that incorrectly identified the race of the targets in the current study suggests that the racial manipulation used may have been more ambiguous than those used in other studies. For example, whereas the current study used target name to manipulate race, Yarkin et al. manipulated target race in a resume via the target's undergraduate institution (Howard University vs. American University) and community activities (NAACP vs. Chamber of Commerce). Jackson et al. provided participants with a college application that explicitly indicated that the target was either

“White/Caucasian” or “Black/African American”, and included either “representative to the student union” or “representative to the black student union” in a list of the target’s activities and interests. If the racial manipulation in the current study was more ambiguous, it is possible that some of the participants included in the analyses may have been uncertain of the race of the targets, but guessed the correct response to the manipulation check items. If this occurred, then it may have contributed to the smaller effect sizes.

Another possibility is that the racial manipulation used in the current study may have been less salient than those used in previous studies. If this was the case, the manipulation may not have been strong enough to activate racial stereotypes, resulting in the smaller effect sizes. Alternatively, it may be that the different racial manipulations carry with them additional information that influences the operation of individuals’ racial stereotypes. For example, Yarkin et al. (1982) conveyed to participants that a target was black by indicating that the target had attended a historically black university (i.e., Howard University) and was involved in the NAACP. It is possible that information such as this may activate more negative black stereotypes in some white individuals. Additionally, this information may convey to participants that the black target identifies closely with the black community. Thus, participants may be less likely to attempt to distinguish the target from other black individuals. According to Pettigrew and Martin (1987), one way that white observers may explain successful black performance is by distinguishing the successful black from other black individuals as an exceptional case. When this occurs, the white observers may exaggerate the black individual’s positive qualities. Therefore, if white participants are less likely to differentiate the black target as

an exceptional case due to the target's apparent ties to the black community, they may provide less favorable judgments about the target. This may then result in greater differences between the judgments made about white versus black targets. In contrast to the manipulation used by Yarkin et al., manipulating target race solely by way of the target's name may not convey as much additional information to participants. As a result, participants may be more likely to distinguish a successful black from other black individuals as an exceptional case and exaggerate the successful black's positive qualities. This may result in smaller differences between participants' judgments of white versus black targets. Taken together, this argument provides another potential explanation for the smaller racial effects obtained in the current study.

Aside from the racial manipulation, another possible reason that the effect sizes for the current study are smaller than those found in previous research may be that the performance level of the protégé was not high enough to effectively activate racial stereotypes. Previous research has suggested that, in order to observe the operation of stereotypes, the level of performance must be sufficiently high such that it deviates from expectations for performance (e.g., Greenhaus & Parasuraman, 1993). Although a small pilot study indicated that the perceived level of protégé performance in the current study was "above average", it is possible that this level of performance is not high enough to effectively activate stereotypes. If this is the case, it may contribute to the explanation for why the racial effects observed in the current study are smaller than those found in previous research.

Another possible explanation for the absence of significant racial differences in judgments is that participants may have elevated their judgments of the black targets, thus

minimizing the difference between the white and black targets. There are two reasons that participants may have done this. The first reason stems from the exceptional case attribution proposed by Pettigrew and Martin (1987), which was referred to earlier. According to Pettigrew and Martin, white observers may view a successful black performer as an exceptional case and attempt to differentiate the successful black from other black individuals by exaggerating the successful black's positive qualities. If this happened in the current study, participants may have provided more favorable ratings to the black mentors and protégés, thereby decreasing the gap between white and black targets.

The second reason that participants may have elevated their judgments of the black targets is that they were attempting to appear as though they did not hold negative racial stereotypes. In other words, their responses may have been influenced by social desirability. However, given that the true purpose of the study was disguised, and that participants were assured anonymity, the possibility of this occurring should have been minimized.

A final explanation for the lack of significant racial differences in the current study is that participants do not hold racial stereotypes, and any mean differences are due to chance. However, given the current study's findings concerning the moderating effect of mentor race, this explanation does not seem likely, as judgments do not seem to have been totally unaffected by the race of the target.

Associations Among Judgments: Hypotheses 8 through 11

The remaining hypotheses predicted associations among attributions for protégé performance, evaluations of protégé potential, and mentor and protégé reward

recommendations. As predicted in Hypothesis 8, there was a positive relationship between attributions to protégé ability and ratings of protégé career advancement potential. This finding agrees with previous research that has demonstrated an association between ability attributions and ratings of employee career potential (e.g., Greenhaus & Parasuraman, 1993; Heilman & Guzzo, 1978). Although not hypothesized, attributions to protégé effort were also positively associated with protégé career advancement potential in the current study, and the magnitude of the correlation was similar in size to the correlation between ability attributions and potential ($r = .42$ for effort attributions; $r = .41$ for ability attributions). These results are similar to those obtained by Greenhaus and Parasuraman, who found career advancement prospects to be positively correlated with both ability attributions ($r = .20, p < .01$) and effort attributions ($r = .24, p < .01$).

In support of Hypothesis 9, both attributions to protégé ability and attributions to protégé effort were positively related to protégé reward recommendations. These results fall in line with previous research showing associations between ability and effort attributions and organizational rewards (Allen et al., 1994; Heilman & Guzzo, 1978). However, results in the current study were mixed with respect to Hypothesis 10, which predicted that attributions to protégé ability would be associated with greater protégé reward recommendations than would attributions to protégé effort. In a study conducted by Allen et al., attributions to ability were significantly related to six organizational rewards, whereas attributions to effort were significantly related to only two of the six rewards. By contrast, in the current study, attributions to ability were significantly related to four of five organizational rewards, whereas attributions to effort were

significantly related to all five of the rewards. Thus, results from the current study may seem to suggest that effort attributions are associated with greater organizational rewards than are ability attributions. However, when the magnitudes of the associations are compared, statistical analyses show that the association between ability attributions and promotion is significantly greater than the association between effort attributions and promotion. This result is consistent with previous research that has found that raters judge promotions as more appropriate for ability-based success than for effort-based success (Heilman & Guzzo, 1978; Pazy, 1986). Therefore, although effort attributions may be associated with a greater number of the rewards included in the current study, ability attributions are more strongly associated with promotion, which may be considered one of the highest organizational rewards.

It is interesting to note how career advancement potential and promotion recommendations differed in their relationships with attributions to ability and effort. Specifically, whereas ratings of career advancement potential were similarly related to both ability and effort attributions, promotion recommendations were more strongly related to ability attributions than to effort attributions. Given that both of these constructs involve assessing whether an individual should move into a higher-level position, it seems reasonable to expect that they would show similar associations with ability and effort attributions. Furthermore, the theoretical reasoning behind both constructs' associations with attributions is similar. As discussed earlier, the attributions formed to explain an employee's performance can influence an observer's expectations for the employee's future performance (Green & Mitchell, 1979; Weiner et al., 1972). When employee performance is attributed to stable causes (e.g., ability), it is perceived as

likely to continue in a similar manner in the future. When performance is attributed to unstable causes (e.g., effort), it is more difficult to predict future performance. Thus, an observer may be more confident providing higher ratings of career advancement potential and promotion recommendations to an employee whose successful performance is attributed to ability rather than effort. As a result, it seems reasonable to conclude that both ratings of advancement potential and promotion recommendations would be more strongly associated with ability attributions than with effort attributions. However, in the current study, this only held true for promotion recommendations. One possible explanation for these findings is the dissimilarity of the constructs' operational definitions. Specifically, the wording used in the promotion recommendation item gave respondents a more active role in the decision making process and implied a more immediate change in the employee's position, compared to the wording used in the career advancement potential items. Perhaps in situations such as these, individuals make greater distinctions amongst the attributions they use to make decisions. Further research is needed to explore these possibilities.

Regarding Hypothesis 11, results supported the prediction that there is a positive association between attributions of protégé success to the mentor's help and mentor reward recommendations. This finding is consistent with research and theory suggesting that organizational decision makers may recognize and reward mentors for their contributions to the organization (Allen et al., 1997; Ramaswami & Dreher, 2007). However, further examination of the data revealed that, although there was a positive association between attributions to mentor help and mentor reward recommendations when the mentor was white, there was no such association when the mentor was black.

Thus, whereas white mentors seem to have been rewarded in part according to their contributions to their protégés' success, black mentors do not seem to have been rewarded according to their contributions. Interestingly, there were no differences between black and white mentors in the mean ratings of attributions to mentor help or mentor reward recommendations. However, given the differences in the correlations, it appears that the cognitive processes used by respondents to make these ratings may have differed. More specifically, although respondents may have based their reward recommendations for the white mentor in part on the mentor's contributions to the protégé's success, they may have based their reward recommendations for the black mentor on some other factor(s).

Although there are many factors that may have influenced respondents' reward recommendations for the black mentor, one possibility is based on the "exceptional case" phenomenon described by Pettigrew and Martin (1987). If some of the respondents regarded the black mentor as an exceptional case, they may have exaggerated the mentor's positive qualities in order to differentiate him from other black individuals. This in turn may have influenced the respondents' reward recommendations for the mentor. It is also possible that some respondents may have believed it to be unusual to see a black individual in such a position of power. They may have reasoned that the black mentor must have excelled in his performance to overcome obstacles and achieve his current position. Such assumptions may then have influenced their reward recommendations for the mentor. It is interesting to note that the percentage of participants that incorrectly identified the race of a target was greatest in the case of the black mentor. Although there are several reasons why this may have occurred, one

explanation may be that participants found it unusual for a mentor to be black, and thus failed to identify him as such. Perhaps those who correctly identified the mentor as black also believed it to be unusual, but rather than assuming the mentor must be white, they made other assumptions about the mentor, such as those described above. Clearly, this is only one possible explanation and additional research is needed to understand the current study's findings concerning the black mentor and the moderating role of mentor race.

Effectiveness of the Racial Manipulation

In the current study, the race of the mentor and of the protégé depicted in the vignette was manipulated by way of their names. The effectiveness of this manipulation was assessed by calculating the percentage of participants that correctly identified the intended races of the targets. Results of a pilot test indicated that an acceptable percentage of participants correctly identified the races of the targets. However, in almost all cases, the percent correct obtained during the primary study data collection was lower than that obtained during the pilot test.

One possible reason for this difference between the pilot study and primary study may be the differences between the samples used in each study. The pilot study sample consisted of white undergraduate students taking a psychology course at a large southeastern university. The primary study sample, on the other hand, was composed of white, employed individuals from five different sources, with the majority being employees at a national engineering consulting firm. However, the second largest contributor to the primary sample was quite similar to the pilot sample, consisting of undergraduate students taking psychology courses at a large southeastern university. The students in the primary sample were very similar to those in the pilot sample in terms of

their demographic characteristics, including gender, age, education, and work-related experience.

In contrast, the employees from the engineering consulting firm differed in many respects from the students in the pilot and primary samples. For example, the engineering firm employees were majority male, were older, had higher levels of education, and had more work-related experience. Whereas 36.5% of the engineering firm employees who participated in the primary study were excluded from the final sample because they incorrectly identified the intended race of the targets, only 21.1% of the undergraduate students who participated in the primary study were excluded. Thus, the percentage of students in the primary sample that correctly identified the race of the targets was closer to that obtained during the pilot study, although still not as high.

Given the similarities between the students in the pilot and primary samples, it may not be very surprising that the percentages correctly identifying the races of the targets were closer in value for these two groups in comparison to the engineering firm employees. However, the question remains of why a greater percentage of students correctly identified the targets' races compared to the engineering firm employees. In addition to the demographic characteristics already mentioned, there were other differences between the students and the engineering firm employees that may shed some light on this question. For example, students in the primary and pilot samples were probably more familiar with psychological experiments compared to the engineering firm employees. Furthermore, some of these students had probably participated in other psychological experiments prior to the current study. Perhaps this familiarity influenced

the students' responses to the manipulation check items, especially if they had previous experience in research examining racial issues.

It is also possible that the students and engineering firm employees had different degrees of exposure to black individuals, which then affected their responses to the manipulation check items. According to the U.S. Bureau of Labor Statistics (2008), only 5.1% of individuals employed in architecture and engineering occupations are black or African American. By contrast, 11.7% of the students enrolled at the large southeastern university are black (Office of Decision Support, 2008). These statistics suggest that the students who participated in the current study may have had more exposure to black individuals than the employees of the engineering consulting firm. This may be one reason why a larger percentage of the engineering firm employees incorrectly identified the race of the targets, particularly in the case of the black mentor. If the engineering firm employees had less exposure to black individuals, they may be less familiar with names that, according to birth frequency data, are distinctively black. Furthermore, the employees may also see fewer examples of black individuals in positions of power, and thus find it more unusual for a mentor to be black. Either of these scenarios may explain why a greater percentage of the engineering firm employees incorrectly responded to the manipulation check items.

In addition to the differences in the samples used in the pilot and primary studies, there were also differences in the data collection procedures. Pilot data were collected from students in a classroom setting using paper versions of the study survey materials. Primary study data were collected primarily through an online survey. It is possible that

these different procedures may have produced different demand characteristics, which then influenced participants' responses to the manipulation check items.

Given the findings regarding the effectiveness of the racial manipulation used in the current study, it is important to consider the implications of these findings and how the racial manipulation may have influenced the results of the study. One concern may be the loss of data that resulted from excluding a higher-than-desired percentage of participants from the final sample due to their incorrect responses to the racial manipulation check items. It is possible that those excluded from the final sample differed in some way from those included, resulting in an unrepresentative sample. Although a comparison of the demographic characteristics of those included and those excluded did not reveal any consistent differences, it is still possible that the groups differed on other important variables, such as their exposure to black individuals, their familiarity with distinctively black names, or their expectations for black performance. Thus, the results obtained in the current study may not generalize to the excluded individuals or others having characteristics similar to those excluded. Additionally, the results of the study should be interpreted with this in mind, as excluding these individuals may have influenced the results. For example, the finding that the racial effects on the set of dependent variables were smaller than those obtained in previous research may be partially a result of excluding participants who differed on important variables. In the future, researchers should use less ambiguous racial manipulations in order to reduce the percentage of participants that have to be excluded.

Another concern regarding the racial manipulation may be that the ambiguity of the manipulation resulted in participants responding randomly to the manipulation check

items. However, there is some evidence that suggests that participants were not simply responding at random to these items. First, the percentage of participants correctly identifying the target's race was above 80% for all of the names, except the names used for the black mentor. Second, when the correlation between mentor help attributions and mentor reward recommendations was computed using responses of participants who incorrectly identified the black mentor as white, the correlation was significant ($r = .42, p < .01$). As reported in the Results section, this correlation was significant for participants who correctly identified the white mentor as white, but was not significant for participants who correctly identified the black mentor as black. Thus, the results for participants who incorrectly identified the black mentor as white were similar to the results for participants who correctly identified the white mentor as white. These findings are consistent with what might be expected if participants who incorrectly identified the black mentor as white really thought the mentor was white, rather than if they were responding at random to the manipulation check item.

A third concern is that not only do the results of the manipulation check suggest that the racial manipulation was too ambiguous, but they may also suggest that the manipulation was too weak. As discussed earlier, a weak manipulation may be one explanation for why the racial effects observed in the current study were not significant and were smaller than those observed in previous research. Again, future research should incorporate a less ambiguous and more salient racial manipulation to increase the likelihood that participants will correctly identify the race of the targets.

A fourth concern regarding the racial manipulation used in the current study stems not from the percentage of participants that correctly identified the race of the targets, but

rather from the design of the study. Specifically, for practical reasons and ease of survey administration, only one name was used for each target (e.g., the name “Brad” was used for the white protégé target, the name “Greg” was used for the white mentor target, etc.). The only exception was in the case of the black mentor, where the name Darnell was replaced with the name DeAndre during data collection, resulting in two names being used for the black mentor target. Although using this design was more practical, a potential problem is that it may have introduced a confound, in which participants’ responses may have been influenced not only by the intended race of the target, but also by the specific name chosen for the target. However, there is some evidence suggesting that participants were responding to the race of the targets rather than to their names. First, when examining the means on the set of dependent variables for Darnell and DeAndre, there appeared to be no differences, suggesting that participant responses did not vary according to the name of the black mentor. Second, the finding that the correlation between mentor help attributions and mentor reward recommendations was significant for participants who identified the black mentor as white, but was not significant for participants who identified the black mentor as black suggests that participants may have been responding to the perceived race of the target rather than to the target’s name. If participants had been responding to the target’s name, it seems reasonable to expect that these correlational results would not have differed. Despite these arguments, the possibility of confounding target race with target name cannot be totally dismissed in the current study, and future research should consider balancing the target names or using multiple names for each target. For example, the name “Brad” could be used for the white protégé target in some instances, and for the white mentor

target in other instances. This would increase confidence that any racial differences observed are due to target race rather than target name.

Taken together, results of the manipulation check analysis suggest that future research should use a less ambiguous racial manipulation. For example, researchers could use a picture of the targets depicted in the vignette or provide additional race-related information about the targets, as has been done in previous research. Using a more salient and less ambiguous racial manipulation will allow for more confidence in the results of the study. On the other hand, some of the results of the current study's racial manipulation are interesting and lead to questions that may be worth pursuing. For instance, why was the percentage of participants who correctly identified the race of the black mentor lower than for the other targets? Was this finding simply a function of the names chosen for the black mentor, or does it reflect a stereotype held by some people about black individuals being in positions of power? It is important to address such questions, as the answers may have important consequences for black individuals in the workplace.

Study Limitations and Directions for Future Research

In addition to the study limitations associated with the effectiveness of the racial manipulation, there are other limitations to the current study that should be noted. First, results of a post hoc power analysis revealed poor power for detecting differences on the dependent variables. This may be one reason for the lack of support for the hypothesized racial differences.

A second limitation is that the design of the study did not allow for testing the causal direction of some of the relationships under investigation. Specifically, although it

is implied that individuals' causal attributions influence their judgments of career advancement potential and reward recommendations, this was not actually tested in the current study. However, theory and previous experimental research have provided support for this argument (e.g., Heilman & Guzzo, 1978).

A third possible limitation to the study is that participants were asked to judge a mentor and protégé depicted in a written vignette, as opposed to an actual mentor and protégé in an organizational setting. Although this type of design provides more control over extraneous variables, it may also limit the generalizability of the findings. However, steps were taken to make the situation more realistic. For example, study materials were presented in the form of mentor and protégé evaluations of a formal mentoring program. Additionally, all of the participants were currently employed and the majority of participants had supervisory experience, suggesting that they were familiar with the kinds of judgments examined in this study. Future research should investigate how individuals evaluate actual mentor-protégé dyads in the workplace.

A fourth potential limitation to the current study is that the vignette depicted a mentor and protégé in one specific occupation – bank branch management. This occupation was chosen on the basis of several criteria, however, it is possible that the results of the study may vary depending on the occupation chosen. For example, participant responses may differ depending on the extent to which black individuals are represented in the chosen occupation, or the extent to which individuals' stereotypes of blacks fit with their conceptualization of the occupation. Therefore, future research may examine judgments of homogeneous and diversified mentorships in different occupations.

In addition to the suggestions for future research already provided, there are other directions that may be worth pursuing. For example, although the current study focused on the evaluations formed by white observers, it would be interesting to examine the evaluations formed by black individuals and members of other racial minority groups. Further, the current study could be expanded upon by examining not just perceptions of mentoring partners who are white or black, but also perceptions of mentoring partners who are members of other racial and ethnic groups. Aside from race, there are other characteristics of the mentoring dyad that may influence observers' evaluations of the mentor and protégé, such as gender or age. Researchers should consider examining the influence of these characteristics. Finally, although the current study investigated judgments when the protégé was successful, it would be interesting to investigate observers' judgments when the protégé is unsuccessful.

Conclusions

The aim of the current study was to contribute to the limited amount of research on racial diversity and workplace mentoring by examining how mentorship racial composition influences observers' evaluations of the mentor and protégé. Because outside observers can influence the development and outcomes of a mentoring relationship, this research is particularly relevant to the question of whether racial minorities receive the same benefits from mentoring as do whites. Although results did not support the hypothesized racial differences in judgments, an interesting finding emerged concerning the association between attributions to the mentor's help and reward recommendations for the mentor. Specifically, results suggested that, whereas white mentors may be rewarded in part according to their contributions as a mentor, black

mentors may not be so rewarded. However, given the methodological limitations of the current study, additional research is needed to explore this finding and to determine whether black individuals receive the same benefits as do white individuals for their service as mentors. Such research is important as the workforce becomes more racially diverse and organizations strive to promote racial equality in the workplace.

References

- Aguinis, H. (2004). *Regression analysis for categorical moderators*. New York: The Guilford Press.
- Allen, T. D., Eby, L. T., Poteet, M. L., Lentz, E., & Lima, L. (2004). Career benefits associated with mentoring for proteges: A meta-analysis. *Journal of Applied Psychology, 89*, 127-136.
- Allen, T. D., Lentz, E., & Day, R. (2006). Career success outcomes associated with mentoring others: A comparison of mentors and nonmentors. *Journal of Career Development, 32*, 272-285.
- Allen, T. D., Poteet, M. L., & Burroughs, S. M. (1997). The mentor's perspective: A qualitative inquiry and future research agenda. *Journal of Vocational Behavior, 51*, 70-89.
- Allen, T. D., & Rush, M. C. (1998). The effects of organizational citizenship behavior on performance judgments: A field study and a laboratory experiment. *Journal of Applied Psychology, 83*, 247-260.
- Allen, T. D., Russell, J. E. A., & Rush, M. C. (1994). The effects of gender and leave of absence on attributions for high performance, perceived organizational commitment, and allocation of organizational rewards. *Sex Roles, 31*, 443-464.
- Berger, J., Cohen, B. P., & Zelditch, M., Jr. (1972). Status characteristics and social interactions. *American Sociological Review, 37*, 241-255.

- Bertrand, M., & Mullainathan, S. (2004). Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *The American Economic Review*, 94, 991-1013.
- Best practices in bank employee mentoring programs. (2006, February). *Community Banker*. Retrieved June 1, 2007, from <http://www.mentorscout.com/news/news-archive.cfm?id=869>
- Bozionelos, N. (2004). Mentoring provided: Relation to mentor's career success, personality, and mentoring received. *Journal of Vocational Behavior*, 64, 24-46.
- Chatman, C. M., & von Hippel, W. (2001). Attributional mediation of in-group bias. *Journal of Experimental Social Psychology*, 37, 267-272.
- Crant, J. M., & Bateman, T. S. (1993). Assignment of credit and blame for performance outcomes. *Academy of Management Journal*, 36, 7-27.
- Cuddy, A. J. C., Rock, M. S., & Norton, M. I. (2007). Aid in the aftermath of Hurricane Katrina: Inferences of secondary emotions and intergroup helping. *Group Processes & Intergroup Relations*, 10, 107-118.
- DeShon, R. P., & Alexander, R. A. (1996). Alternative procedures for testing regression slope homogeneity when group error variances are unequal. *Psychological Methods*, 1, 261-277.
- Elvira, M. M., & Zatzick, C. D. (2002). Who's displaced first? The role of race in layoff decisions. *Industrial Relations*, 41, 329-361.
- Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology*, 51, 115-134.

- Green, S. G., & Mitchell, T. R. (1979). Attributional processes of leaders in leader-member interactions. *Organizational Behavior and Human Performance*, 23, 429-458.
- Greenhaus, J. H., & Parasuraman, S. (1993). Job performance attributions and career advancement prospects: An examination of gender and race effects. *Organizational Behavior and Human Decision Processes*, 55, 273-297.
- Greenhaus, J. H., Parasuraman, S., & Wormley, W. M. (1990). Effects of race on organizational experiences, job performance evaluations, and career outcomes. *Academy of Management Journal*, 33, 64-86.
- Hamilton, D. L., & Trolie, T. K. (1986). Stereotypes and stereotyping: An overview of the cognitive approach. In J. F. Dovidio & S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 127-158). Orlando, FL: Academic Press.
- Heilman, M. E. (1983). Sex bias in work settings: The lack of fit model. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior* (Vol. 5, pp. 269-298). Greenwich, CT: JAI Press.
- Heilman, M. E., & Guzzo, R. A. (1978). The perceived cause of work success as a mediator of sex discrimination in organizations. *Organizational Behavior and Human Performance*, 21, 346-357.
- Hewstone, M. (1990). The 'ultimate attribution error'? A review of the literature on intergroup causal attribution. *European Journal of Social Psychology*, 20, 311-335.

- Ilgen, D. R., & Youtz, M. A. (1986). Factors affecting the evaluations and development of minorities in organizations. In K. M. Rowland & G. R. Ferris (Eds.), *Research in personnel and human resources management* (Vol. 4, pp. 307-337). Greenwich, CT: JAI Press.
- Jackson, L. A., Sullivan, L. A., & Hodge, C. N. (1993). Stereotype effects on attributions, predictions, and evaluations: No two social judgments are quite alike. *Journal of Personality and Social Psychology*, 65, 69-84.
- Kelley, H. H. (1967). Attribution theory in social psychology. In D. Levine (Ed.), *Nebraska symposium on motivation* (Vol. 15, pp. 192-238). Lincoln, NE: University of Nebraska Press.
- Landau, J. (1995). The relationship of race and gender to managers' ratings of promotion potential. *Journal of Organizational Behavior*, 16, 391-400.
- Levitt, S. D., & Dubner, S. J. (2005). *Freakonomics: A rogue economist explores the hidden side of everything*. New York: HarperCollins Publishers Inc.
- Martinko, M. J., Douglas, S. C., & Harvey, P. (2006). Attribution theory in industrial and organizational psychology: A review. In G. P. Hodgkinson & J. K. Ford (Eds.), *International review of industrial and organizational psychology* (Vol. 21, pp. 127-187). Hoboken, NJ: Wiley Publishing.
- Martinko, M. J., & Gardner, W. L. (1987). The leader/member attribution process. *Academy of Management Review*, 12, 235-249.
- Maume, D. J., Jr. (1999). Glass ceilings and glass escalators: Occupational segregation and race and sex differences in managerial promotions. *Work and Occupations*, 26, 483-509.

- Nemeth, C. J. (1988). Style without status expectations: The special contributions of minorities. In M. Webster, Jr., & M. Foschi (Eds.), *Status generalizations: New theory and research* (pp. 281-290). Stanford, CA: Stanford University Press.
- Office of Decision Support. (2008). *InfoMart Report*. Retrieved March 28, 2009, from <http://usfweb2.usf.edu/infomart/infomartapps/Major10.aspx>
- Pazy, A. (1986). The persistence of pro-male bias despite identical information regarding causes of success. *Organizational Behavior and Human Decision Processes*, 38, 366-377.
- Pettigrew, T. F. (1979). The ultimate attribution error: Extending Allport's cognitive analysis of prejudice. *Personality and Social Psychology Bulletin*, 5, 461-476.
- Pettigrew, T. F., & Martin, J. (1987). Shaping the organizational context for black American inclusion. *Journal of Social Issues*, 43, 41-78.
- Powell, G. N., & Butterfield, D. A. (1997). Effect of race on promotions to top management in a federal department. *Academy of Management Journal*, 40, 112-128.
- Powell, G. N., & Butterfield, D. A. (2002). Exploring the influence of decision makers' race and gender on actual promotions to top management. *Personnel Psychology*, 55, 397-428.
- Ragins, B. R. (1997). Diversified mentoring relationships in organizations: A power perspective. *Academy of Management Review*, 22, 482-521.

- Ragins, B. R. (2007). Diversity and workplace mentoring relationships: A review and positive social capital approach. In T. D. Allen & L. T. Eby (Eds.), *Blackwell handbook of mentoring: A multiple perspectives approach* (pp. 281-300). London, U.K.: Blackwell Publishing.
- Ragins, B. R., & Cotton, J. L. (1999). Mentor functions and outcomes: A comparison of men and women in formal and informal mentoring relationships. *Journal of Applied Psychology*, 84, 529-550.
- Ramaswami, A., & Dreher, G. F. (2007). The benefits associated with workplace mentoring relationships. In T. D. Allen & L. T. Eby (Eds.), *Blackwell handbook of mentoring: A multiple perspectives approach* (pp. 211-231). London, U.K.: Blackwell Publishing.
- Ruble, T. L., Cohen, R., & Ruble, D. N. (1984). Sex stereotypes: Occupational barriers for women. *American Behavioral Scientist*, 27, 339-356.
- Tajfel, H., & Turner, J. C. (1985). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (pp. 7-24). Chicago: Nelson-Hall.
- U.S. Bureau of Labor Statistics. (2008). *Current Population Survey*. Retrieved March 28, 2009, from <http://www.bls.gov/cps/cpsaat11.pdf>
- U.S. Department of Labor & U.S. Bureau of Labor Statistics. (2005, May). *Women in the labor force: A databook*. Retrieved May 24, 2007, from <http://www.bls.gov/cps/wlf-databook-2005.pdf>
- Wanberg, C. R., Welsh, E. T., & Hezlett, S. A. (2003). Mentoring research: A review and dynamic process model. *Research in Personnel and Human Resources Management*, 22, 39-124.

- Weiner, B., Frieze, I., Kukla, A., Reed, L., Rest, S., & Rosenbaum, R. M. (1972).
Perceiving the causes of success and failure. In E. Jones, D. Kanouse, H. Kelley,
R. Nisbett, S. Valins, & B. Weiner (Eds.), *Attribution: Perceiving the causes of
behavior* (pp. 95-120). Morristown, NJ: General Learning Press.
- Whitehead, G. I., III, Smith, S. H., & Eichhorn, J. A. (1982). The effect of subject's race
and other's race on judgments of causality for success and failure. *Journal of
Personality, 50*, 193-202.
- Yarkin, K. L., Town, J. P., & Wallston, B. S. (1982). Blacks and women must try harder:
Stimulus persons' race and sex attributions of causality. *Personality and Social
Psychology Bulletin, 8*, 21-24.

Appendices

Appendix A

Vignette

Instructions

The purpose of this study is to examine formal workplace mentoring relationships. PLEASE READ the information below CAREFULLY, as you will later be asked questions about this information.

Background Information

XYZ Bank is a nationwide financial institution, providing a broad range of services to individual consumers, businesses, and institutional clients. The company operates over 1,500 retail branches throughout the United States.

In 2005, XYZ Bank launched a formal mentoring program in which new bank branch managers are matched with more senior-level branch managers. The purpose of the program is three-fold: (1) to help new employees acclimate to their positions, (2) to provide new employees with a source of support, and (3) to facilitate employee career development.

Administrators of the mentoring program match the mentors and mentees. Mentees may be matched with any higher-level branch manager *except* their direct supervisor. The administrators of the program formally monitor the mentoring relationships for one year. At the end of this one-year monitoring period, the program administrators conduct an evaluation of the mentoring experience. As part of this evaluation, they collect information from the mentee, the mentor, and the mentee's direct supervisor, as described below:

- **Formal Mentoring Program Evaluation from the Mentee:** Each mentee describes his/her experience in the mentoring program.
- **Formal Mentoring Program Evaluation from the Mentor:** Each mentor describes his/her experience in the mentoring program.
- **Supervisor Evaluation of Mentee Performance:** Each direct supervisor of each mentee evaluates the performance of the mentee over the past year.

On the next few pages, you will find the evaluations associated with one mentor-mentee pair that participated in the mentoring program. Please read the information carefully, and then answer the questions that follow.

FORMAL MENTORING PROGRAM EVALUATION FROM THE MENTEE

General Information

Mentee Name: _____ <insert mentee name> _____

Mentee Position/Title: _____ Branch Manager _____

Mentee Location: _____ Tampa, FL _____

Mentor Name: _____ <insert mentor name> _____

Mentor Position/Title: _____ Senior Branch Manager _____

Mentor Location: _____ Orlando, FL _____

Mentoring Experiences

In the space below, please describe the types of exchanges and activities you experienced with your mentor while participating in the mentoring program.

In the beginning, we had conversations about once a week. As the relationship progressed, we gradually met less often. One of the first things we did was talk about my long-term career goals, and also my current goals for the year. <Mentor> shared with me about the company and the typical career advancement pathways. We talked about the skills I would need to develop in order to move up in the organization and ways to develop these skills. Throughout the year, <Mentor> would let me know when he heard about developmental opportunities that he thought would be beneficial to me.

<Mentor> shared other information with me about the company, like information about the top people, company policy, and how things really work inside the organization. We also discussed the business side of things and other day-to-day issues that would come up. For example, soon after I started in my new position, I had to deal with a particularly difficult employee. <Mentor> was able to share his past experiences in similar situations and tips for how to effectively lead and motivate the members of my team. I also appreciated being able to exchange ideas with him for ways to attract business. Recently, we attended the national conference of the American Bankers Association together, which was a great experience. Overall, I'd say that my experience in the mentoring program has been a positive one.

FORMAL MENTORING PROGRAM EVALUATION FROM THE MENTOR

General Information

Mentor Name: _____ <insert mentor name> _____

Mentor Position/Title: _____ Senior Branch Manager _____

Mentor Location: _____ Orlando, FL _____

Mentee Name: _____ <insert mentee name> _____

Mentee Position/Title: _____ Branch Manager _____

Mentee Location: _____ Tampa, FL _____

Mentoring Experiences

In the space below, please describe the types of exchanges and activities you experienced with your mentee while participating in the mentoring program.

During our early conversations, I focused on getting to know <Mentee>, his goals and career plans, and on helping him adjust to his new position by answering any questions he had about the company and its policies. He was concerned about finding a balance between all of his different responsibilities as a branch manager- managing his personnel, serving customers, growing a business- so I shared with him some of the strategies I've learned that have helped me with this. We would often discuss different work-related issues, and I would act as a kind of sounding board for his ideas and provide my perspectives on things. I also tried to provide some more hands-on help, such as when I reviewed and gave feedback on his first financial report of operations. I shared information with him that I thought might be helpful, like interesting business articles, or information about different learning opportunities that I heard about. I encouraged him to attend the ABA's national conference this year and was able to introduce him to a few of my long-time banking friends there. I have found serving as a mentor to be a rewarding experience, and I would encourage other senior managers to become involved in this program.

Appendix A (Continued)

SUPERVISOR EVALUATION OF MENTEE PERFORMANCE

In the space below, please provide an evaluation of _____<Mentee's>_____ performance over the past year. When possible, provide specific examples to support your evaluation.

<Mentee> appears to be adjusting to our company's culture and learning how we do business. I am pleased to see that the steady increase in profit that we have seen over the past few years at his branch has continued. In addition, <Mentee> was responsible for overseeing the implementation of company-wide marketing and promotional plans in his branch. However, I would like to see him take more "ownership" of his branch by coming up with creative ways to build and maintain new customer relationships. Based upon my observations, <Mentee> seems to have established a good rapport with his staff and customers. He has had minimal personnel turnover, and his branch did well on a recent customer satisfaction survey. In terms of <Mentee's> own personal and professional development, I am pleased to see that he is taking steps to enhance his job-related knowledge and skills.

Appendix B

Causal Attributions Items

Please indicate the extent that each of the following factors contributed to the success of the MENTEE, <Mentee>. Use the scale below to mark your responses to the left of each item.

1	2	3	4	5
Not at all	Slight extent	Some extent	Large extent	Great extent

Appendix C

Career Advancement Potential Items

Using the scales below, please circle your response to the following items.

1. How would you rate the potential of the MENTEE, <Mentee>, for advancing to positions of greater responsibility in the company?

1	2	3	4	5
Very low	Low	Moderate	High	Very high

2. What is the likelihood that the MENTEE, <Mentee>, will be promoted to a higher position during the course of his career with the company?

1	2	3	4	5
No likelihood	Low likelihood	Moderate likelihood	High likelihood	Very high likelihood

3. How would you rate the potential of the MENTEE, <Mentee>, for moving into a position at the top managerial levels?

1	2	3	4	5
Very low	Low	Moderate	High	Very high

Appendix D

Reward Recommendations Items

MENTEE Reward Recommendations. Please indicate the extent that you would recommend the MENTEE, <Mentee>, for each of the following organizational rewards. Use the scale below to mark your responses to the left of each item.

1	2	3	4	5
Would definitely NOT recommend	Would probably NOT recommend	Neutral	Would recommend with some minor reservations	Would recommend with confidence and without reservation

- ___ 1. Salary increase
- ___ 2. Promotion
- ___ 3. High profile project
- ___ 4. Public recognition (e.g., company award)
- ___ 5. Fast-track developmental program

MENTOR Reward Recommendations. Please indicate the extent that you would recommend the MENTOR, <Mentor>, for each of the following organizational rewards. Use the scale below to mark your responses to the left of each item.

1	2	3	4	5
Would definitely NOT recommend	Would probably NOT recommend	Neutral	Would recommend with some minor reservations	Would recommend with confidence and without reservation

- ___ 1. Salary increase
- ___ 2. Promotion
- ___ 3. High profile project
- ___ 4. Public recognition (e.g., company award)
- ___ 5. Opportunities for executive development

Appendix E

Manipulation Check Items

Please respond to the following questions.

1. To which of the following age groups does the MENTEE, <Mentee>, belong?

- ☐ 20-29 years old
- ☐ 30-39 years old
- ☐ 40-49 years old
- ☐ 50-59 years old
- ☐ 60 or older

2. To which of the following age groups does the MENTOR, <Mentor>, belong?

- ☐ 20-29 years old
- ☐ 30-39 years old
- ☐ 40-49 years old
- ☐ 50-59 years old
- ☐ 60 or older

3. To which gender does the MENTEE, <Mentee>, belong?

- ☐ Male
- ☐ Female

4. To which gender does the MENTOR, <Mentor>, belong?

- ☐ Male
- ☐ Female

5. To which of the following racial groups does the MENTEE, <Mentee>, belong?

- ☐ White/Caucasian
- ☐ Black/African American

6. To which of the following racial groups does the MENTOR, <Mentor>, belong?

- ☐ White/Caucasian
- ☐ Black/African American

7. At the beginning of this study, you were presented with the evaluations associated with one mentor-mentee pair that participated in the mentoring program. The first evaluation was the mentee's evaluation of the mentoring program; the second was the mentor's evaluation of the mentoring program; and the third was an evaluation of the mentee's performance. **WITHOUT referring back to the information presented earlier**, please indicate which of the following people was responsible for completing the evaluation of the mentee's performance:

- ☐ The mentor
- ☐ The mentee
- ☐ The mentee's direct supervisor
- ☐ The mentor's direct supervisor
- ☐ Other (please specify) _____

Appendix F

Participant Demographics Items

Please answer the following questions about yourself.

1. What is your gender? ☐ Male ☐ Female
2. What is your race?
 ☐ Caucasian/White
 ☐ African American/Black
 ☐ Hispanic
 ☐ Asian
 ☐ Native American
 ☐ Other (please specify) _____
3. What is your age? _____
4. What is the highest level of education that you have completed?
 ☐ High school degree or less
 ☐ Some college
 ☐ Associate/2-year degree
 ☐ Four year degree
 ☐ Graduate work
 ☐ Graduate degree
5. Are you currently employed?
 ☐ Yes ☐ No
6. For how long have you been employed in your current job?
 _____ Years _____ Months
7. How many hours do you typically spend on work per week (include work done outside of the office): _____
8. What is your current job title? _____
9. In what industry are you currently employed? _____

Appendix F (Continued)

10. In order to assist individuals in their development and advancement, some organizations have established formal mentoring programs, where mentees and mentors are linked in some way. This may be accomplished by assigning mentors or by just providing formal opportunities aimed at developing the relationship. Other types of mentoring relationships develop on their own without organizational intervention.

To recap: Formal mentoring relationships are developed with *organizational assistance*. Informal mentoring relationships are developed *spontaneously*, without organizational assistance. Which of the following best describes your personal involvement in a workplace mentoring relationship?

- ☐ I have been involved in a FORMAL mentoring relationship
- ☐ I have been involved in an INFORMAL mentoring relationship
- ☐ I have been involved in BOTH types of relationships (informal and formal)
- ☐ I have NEVER BEEN INVOLVED in a workplace mentoring relationship

11. If you have been involved in a workplace mentoring relationship, which of the following best describes your role in the relationship?

- ☐ I am/was the MENTEE.
- ☐ I am/was the MENTOR.
- ☐ I am/have been BOTH a mentee and a mentor.
- ☐ N/A

12. If you have been involved in a workplace mentoring relationship, please answer the following questions regarding you and your mentoring partner(s):

- ☐ a. How many mentoring partners have you had who have been of the SAME RACE as you?
- ☐ b. How many mentoring partners have you had who have been of a DIFFERENT RACE than you?
- ☐ c. How many mentoring partners have you had who have been of the SAME GENDER as you?
- ☐ d. How many mentoring partners have you had who have been of a DIFFERENT GENDER than you?

13. Have you ever been in a position in which you supervised the work of others?

- ☐ Yes ☐ No

14. If yes, how many years of supervisory experience have you had?

- Years

15. Have you previously participated in this study?

- ☐ Yes ☐ No