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"SOMEONE LIKE ME CAN BE SUCCESSFUL": DO COLLEGE STUDENTS NEED SAME-GENDER ROLE MODELS?

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Two studies examined the extent to which matching on gender determines the impact of career role models on the self. Because women face negative stereotypes regarding their competence in the workplace, they may derive particular benefit from the example of an outstanding woman who illustrates the possibility of overcoming gender barriers to achieve success. In contrast, men may not have the same need for same-gender role models. Study 1 assessed the impact of gender-matched and mismatched career role models on the self-perceptions of female and male participants. In Study 2, female and male participants were asked to describe a career role model who had inspired them in the past. In both studies, results indicated that female participants were more inspired by outstanding female than male role models; in contrast, gender did not determine the impact of role models on male participants.

When members of minority or disadvantaged groups achieve success, they are often expected to serve as role models for other members of their group: An African American surgeon will inspire African American youths to believe that they too can achieve professional success; a female astrophysicist will encourage young women to pursue nontraditional careers in science. It is assumed that people need to know that someone like themselves has been able to achieve success, to encourage them to strive for similar accomplishments. Indeed, many affirmative action programs are predicated on the need to have women and members of visible minorities in prominent executive positions to serve as role models for other members of their group.

Role models are individuals who provide an example of the kind of success that one may achieve, and often also provide a template of the behaviors that are needed to achieve such success. By identifying with an outstanding role model, individuals can become inspired to pursue similar achievements. However, it is not clear that matching on dimensions such as race or gender is necessary for a role model to be deemed relevant. It may be that role models who are mismatched with their audience on gender will still have an impact, but to a lesser degree than would a model who matched the audience. Alternatively, it is possible that individuals typically view gender-mismatched role models as irrelevant to themselves, and so are unaffected by them. Finally, it is possible that women in particular might be negatively affected by a gender mismatched role model; to the extent that a successful out-group member reminds one of the difficulties one faces in one's own minority or disadvantaged group, one may be demoralized rather than inspired. The present research examined the degree to which matching on gender would determine the impact of role models.

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Gender Matching and Mentoring

A number of studies have examined the importance of gender matching in mentoring relationships. Mentors are individuals at a more advanced career stage than their protégés who provide professional support, guidance, information, and advice to their protégés, helping them to advance in an organization (Kalbfleisch & Keyton, 1995). Mentors can provide both career support, in the form of sponsorship, creation of challenging assignments, protection, coaching, and exposure in the organization, and also psychosocial support, in the form of acceptance, friendship, counseling, and role modeling (Kram, 1985). Evidence regarding the importance of gender matching in mentoring relationships is mixed. Several studies indicate that same-gender dyads have advantages over cross-gender dyads. For example, mentors in same-gender dyads provided more psychosocial support to their protégés than did mentors in cross-gender dyads (Koberg, Boss, & Goodman, 1998). In addition, protégés in same-gender dyads reported more role

modeling when the mentor was of the same sex than when the mentor was cross-gender (Ragins & McFarlin, 1990; Scandura & Williams, 2001). However, other studies have found no differences in the career or psychosocial support provided by same- and cross-gender mentors (e.g., Ensher, Grant-Vallone, & Marelich, 2002; Ensher & Murphy, 1997). Thus, it is not clear that gender-matched mentors provide special benefits.

In addition, it is possible that the need for gender matching in role modeling differs from the need for gender matching in other forms of mentoring support. For example, because women are socialized to be caring and nurturing (Bem, 1974), female mentors may be especially useful in providing counseling and emotional support (Allen & Eby, 2004; Burke, McKeen, & McKenna, 1993). In contrast, male mentors, who typically have the advantage of higher status in an organization, may be better situated than female mentors to provide career support by giving the protégé exposure and challenging assignments (Allen & Eby, 2004; Ragins & Sundstrom, 1989; Sosik & Godshalk, 2000). Whereas the emotional and career support functions of mentors may be best served by female and male mentors, respectively, the role modeling function of mentors may be best served by same-gender models. By identifying with an outstanding role model, individuals can become inspired to pursue similar achievements. Such identification may be facilitated in same-gender relationships because protégés may find it easiest to identify with same-gender individuals, with whom they may share more obvious similarities (Ragins, 1997).

Gender Matching and Social Comparison

Indeed, a large body of research from the literature on social comparison suggests that individuals are most likely to use similar others as a source of information about themselves (for reviews, see Goethals & Darley, 1977; Wood, 1989). Individuals tend to choose comparison others who are similar to them in terms of their overall performance level on various ability-related tasks (e.g., Hakmiller, 1966; Wheeler, 1966), or who are similar on attributes related to performance (for a review, see Goethals & Darley, 1977). In past research, for example, participants' self-perceptions were positively affected by a career-matched role model; however, self-perceptions were unaffected by a career-mismatched role model (Lockwood & Kunda, 1997). A role model in one's own field shares more correspondences with oneself than does a role model in an unrelated field, and thus offers more information about one's own future prospects and potential.

It is less clear whether matching on gender is an equally important determinant of a role model's influence. Only a handful of studies have specifically examined the impact of gender similarity in social comparisons. In one study (Zanna, Goethals, & Hill, 1975), participants overwhelmingly chose to compare their scores on an analogies test to the scores of same-gender targets rather than cross-gender targets. In another study (Miller, 1984), male and female participants who scored high on a measure of gender self-schemas chose to see test scores of same-gender over cross-gender reference groups even when they had been told that gender was unrelated to performance. To the extent that individuals have learned over time that gender is related to performance on a host of comparison dimensions, they may habitually choose same-gender role models (cf. Miller, 1982; Wood, 1989). However, because studies investigating the role of gender in social comparison have typically assessed comparison selection rather than the impact of comparisons, it is difficult to know whether the other gender role model may also have had an impact on participants. In daily life, comparisons are frequently thrust upon an individual, as when he or she learns that someone else has achieved a promotion, a stellar grade, or a coveted award; individuals do not always have the luxury of choosing with whom to compare (cf. Wood, 1989). Thus, it is important to examine not merely individuals' selection of comparison others, but also the effects that same- and cross-gender comparison others have on individuals' self-perceptions.

Gender Matching and Role Models

In the present research, I examined the possibility that gender matching of career role models is especially important for women. Because men have traditionally outnumbered women in the workplace, women may benefit from the example of a female professional who provides evidence that members of her own group can achieve success (Ragins, 1997). It may be that women, who are still in the minority in many professional occupations, have a greater need for a role model who shares their "minority" status; they may find it difficult to identify with a member of the majority group and consequently, they may gain more from exposure to a female than a male role model. Indeed, research on social comparison and group membership indicates that minority group members may derive special benefit from the success of an in-group member. In one study, for example (Brewer & Weber, 1994), members of a distinctive minority group rated themselves more positively after exposure to a successful rather than unsuccessful in-group member. In contrast, members of a majority group rated themselves less positively after exposure to a successful rather than unsuccessful in-group member. Of course, women are not minority group members in all occupations; in some careers, such as social work or nursing, women are in the majority. Nevertheless, among women who perceive themselves to be in a minority group for their profession, the success of another woman in that career group may have a positive impact on their self-perceptions.

In addition, because they may experience difficulties in overcoming glass ceilings in male-dominated professions, it may be especially important for women at the outset of their careers to learn that someone similar to them has been able

to succeed (Ragins, Townsend, & Mattis, 1998). If women believe that gender-related barriers to success exist in their chosen occupation, then they may be especially inspired by an outstanding female role model, who suggests that similar success may be possible for other women in spite of these barriers. Female models of outstanding success may also serve as an important means of undermining negative gender stereotypes; for example, female student participants exposed to the example of a math-competent woman performed better on a math test than those not exposed to this example (Marx & Roman, 2002). Presumably, the competent role model alleviated the stereotype threat regarding women's inferiority in math domains (Spencer, Steele, & Quinn, 1999), which might otherwise have undermined the female participants' performance.

In sum, women may derive benefits from a female career role model that they cannot obtain from a male career role model. It is not clear, however, that matching role models on gender will be equally important for men. Although men may at times identify more with same- than cross-gender exemplars of success (Ragins & McFarlin, 1990), this matching may be less crucial than it would be for women or minority group members, who have special concerns about their ability to achieve success in their occupations (Ensher & Murphy, 1997; Ragins & Cotton, 1991). Because men are less likely to face obstacles to career advancement based on their gender, or to face negative career stereotypes, it may be less important for them to learn that someone of their own gender has achieved success. Interestingly, one recent study found that female participants reported more role modeling of same- than cross-gender mentors; that is, they were more likely to identify with and emulate same-gender mentors. In contrast, male participants actually reported less role modeling of same- than cross-gender mentors (Sosik & Godshalk, 2000). Thus, gender-matching of role models may be more important for women than for men.

Consistent with this possibility, one recent study suggests that women are more likely to be influenced by female than male career exemplars (Buunk & Van der Laan, 2002): Female students in their final year of university read about men and women who had recently graduated from the same university who were doing either well or poorly. The students reported comparing themselves more with female than male targets, identified more with female than male targets, and expected to have a future more similar to that of the female than male targets. However, because this study did not include male participants, it is unclear whether gender-matched comparisons are equally important for men. In addition, this research measured participants' beliefs about the relative inspirational effects of male and female role models rather than the actual impact of such models relative to a no-comparison control group. It is thus unclear whether participants were influenced less by the male than female role models or whether the male models had no impact or even a negative impact on participants' beliefs.

In the present research, I investigated the extent to which matching on gender influences the impact of role models. In the first study, individuals were exposed to a highly successful role model who shared their career interests and was either matched or mismatched on gender. I then assessed the impact of the role models on participants' self-perceptions. In the second study, female and male participants were asked to describe an actual career role model who had inspired them, and I assessed whether or not individuals were most likely to nominate a gender-matched role model. In both studies, I expected that gender matching would be more important in determining the inspirational impact of role models for female than male participants.

STUDY 1: AN ASSESSMENT OF THE IMPACT OF SAME- AND DIFFERENT-GENDER ROLE MODELS ON SELF-PERCEPTIONS

In Study 1, I explored the extent to which gender matching is important in determining the impact of role models on self-perceptions. Individuals were exposed to high-achievers who were at a more advanced career stage than participants and who were either of the same or other gender. I then assessed the model's impact on participants' self-evaluations. Participants also completed measures of the degree to which they identified their current and future selves with the model. I predicted that gender-matched role models would exert a more positive impact on female participants than would gender-mismatched role models. In addition, I predicted that because female participants would use the successful woman as an exemplar of what they themselves could accomplish, female participants would be especially likely to identify themselves with the same-gender model. In contrast, I predicted that male participants would be positively affected by both gender-matched and mismatched role models and would identify with both to the same degree.

Method

Participants

Participants were 48 female and 39 male Introductory Psychology students who participated for course credit. As part of a larger mass testing questionnaire administered to their class at the beginning of the term, participants provided information about their intended future occupation. Participants' occupational interests covered 23 areas, including such careers as computer programming, marketing, advertising, medicine, law, teaching, accounting, psychology, and engineering. Five participants were excluded from the analyses because they had changed their intended future occupations by the time they took part in the study; past research indicated that student participants were unaffected

by role models in nonrelevant occupations (Lockwood & Kunda, 1997). Altogether, 44 females and 38 males were included in the analyses. Female ($M = 19.23$, $SD = 2.32$) and male ($M = 19.47$, $SD = 1.74$) participants did not differ significantly in age.

Procedure

Participants were invited to take part in a study on the impact of journalistic styles on social perception; they were told that the researchers were interested in assessing whether the style of a newspaper article affected the reader's perceptions of the individual described in the article. Articles were based on materials used in past studies examining the impact of role models on college students (Lockwood & Kunda, 1997, 1999). Experimental participants read a bogus newspaper article that described a highly successful professional who had graduated 7 years ago from the same university and who had recently won an alumni award for outstanding career achievements. This high-achiever was portrayed as having accomplished remarkable success in her or his field and was described by a supervisor as one of the most talented and innovative individuals in that profession. The articles were individually tailored so that each participant read about a target who was a star in the participant's own intended occupation. In the gender-matched condition, participants read about an outstanding professional of the same gender; in the gender-mismatched condition, participants read about an outstanding professional of the other gender. In each case, the gender of the role model was indicated by the target's name: *Jennifer Walker* or *Jeffrey Walker*.

After reading the article, participants were asked to complete a scale used in past research to assess the impact of role models on the self (Lockwood & Kunda, 1997, 1999). First, participants were asked to indicate the extent to which the target was characterized by a set of 40 adjectives, including 10 that were positively related to career success (e.g., "bright" and "capable") and 10 that were negatively related to career success (e.g., "incompetent" and "unintelligent"). Ratings were made on an 11-point scale with endpoints ranging from 1 (*not at all*) to 11 (*very*). Next, participants were told that because their own self-perceptions might influence their perceptions of the person they read about in the article, they would be asked some questions about themselves. Participants then rated themselves on the same set of success-related items.

Participants next completed a scale measuring their identification with the target. Participants rated themselves on two items ("Jennifer [Jeffrey] Walker and I are very similar" and "Jennifer [Jeffrey] Walker is very dissimilar to me") assessing their current identification with the person in the article (i.e., participants' belief that they were like the target person in the present). Participants also rated themselves on three items ("Jennifer [Jeffrey] Walker's achievements are out of my reach," "I will never attain success like that of Jennifer [Jeffrey] Walker," and "Jennifer [Jeffrey] Walker has accomplished more in her [his] life than I can hope to") that assessed future identification (i.e., participants' belief that they could become like the target in the future). Ratings on the current and future identification items were made on a 9-point scale with endpoints labeled 1 (*very strongly disagree*) and 9 (*very strongly agree*).

A no-target control group of female and male participants was also included. These participants completed the self-rating items without first reading about a target. Control participants were given the same cover story as experimental participants; however, the order of materials was reversed: They first completed the questions about themselves and then read the newspaper article. At the end of the session, all participants were probed for suspicion and debriefed.

In sum, the study involved a 2 × 3 (Participant Type: Female or Male × Role Model Type: Gender-Matched, Gender-Mismatched, or No-Target Control) analysis of variance (ANOVA) between-participants design.

Results and Discussion

Role Model Ratings

Role model ratings were averaged into an overall index of success after the negative items were reverse-scored (Cronbach's $\alpha = .88$; $M = 10.11$; $SD = .67$). Ratings of the model by female participants ($M = 10.25$, $SD = .65$) and male participants ($M = 9.95$, $SD = .68$) who were exposed to a role model did not differ significantly. Neither the main effect of role model type nor the participant gender by role model type interaction was significant. Both the male ($M = 10.14$, $SD = .70$) and the female ($M = 10.07$, $SD = .65$) role models were rated highly positively, indicating that participants did indeed regard these role models as examples of highly accomplished individuals.

Self-Ratings

Self-ratings were averaged into an overall index of success, as role model ratings had been (Cronbach's $\alpha = .88$; $M = 8.55$; $SD = .99$). The main effect of participant gender was not significant. The main effect of role model type approached significance, $F(2, 76) = 2.88$, $p = .06$, $\eta^2 = .07$. However, this marginal main effect was qualified by a significant participant gender by role model type interaction, $F(2, 76) = 4.93$, $p = .01$, $\eta^2 = .12$.

I had predicted that female participants would be positively affected by only the gender-matched role model, whereas male participants would be positively affected by both matched and mismatched models; these hypotheses were tested through a series of planned contrasts. As seen in Figure 1, female participants who read about a successful woman rated themselves more positively than did those who read about a man, $F(1, 76) = 5.81$, $p = .02$, or those who read about no role model, $F(1, 76) = 10.77$, $p = .002$.

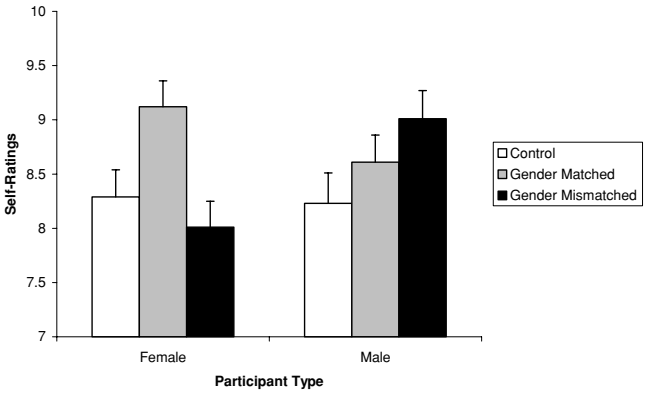

Fig. 1. Self-ratings of female and male participants exposed to no role model (control), a gender matched model, or a gender mismatched model (Study 1).

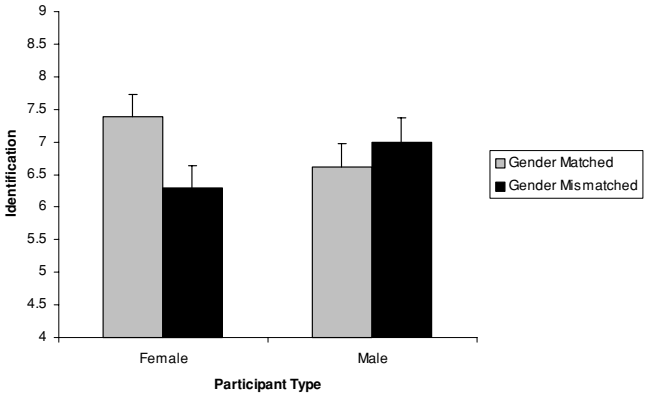

Fig. 2. Participants' ratings of their identification with gender matched and gender mismatched role models (Study 1).

Female participants who read about a man did not differ in their self-ratings from those who read about no role model, $F < 1$. Males who read about a role model, both gender matched and mismatched, did not rate themselves significantly more positively than did males who read about no target, $F(1,76) = 3.01, p = .08$. Males who read about a gender matched role model did not differ in their self-ratings from those who read about a mismatched role model, $F(1, 76) = 1.26, p = .26$.

Identification Ratings

The five identification items were averaged after reverse-scoring the negative items (Cronbach's $\alpha = .83$); items were reverse-scored so that higher scores would indicate higher perceived likelihood of becoming like the target. Identification ratings were positively correlated with self-ratings, $r = .53$, $p < .001$; participants who identified themselves with the role model in the present and future also rated themselves more positively. This finding is consistent with the notion that individuals are most positively affected by models with whom they can identify.

Neither the main effect of participant gender nor the main effect of target type on identification ratings was significant, both Fs < 1. The participant gender by role model type interaction was significant, $F(1, 53) = 4.30$, $p = .04$, $\eta^2 = .08$ (see Figure 2). A planned contrast indicated that female participants reported greater identification with same-gender than cross-gender targets, $F(1, 53) = 4.84$, $p = .03$. In contrast, male participants did not differ in their identification with same-gender and cross-gender targets, $F < 1$. Thus, Study 1 provides evidence that gender matching determines identification with a role model for female but not male participants.

Study 1 suggests that women are inspired by outstanding women but not by outstanding men in their fields. After exposure to the outstanding woman, female participants viewed themselves as more successful; outstanding men had no impact on their self-perceptions. In addition, female participants indicated stronger beliefs that they were currently like the model and might become like the model in the future when they were exposed to a successful woman rather than a successful man in their field. Women may be especially boosted by same-gender models because such models set an inspirational example of the achievements to which they can aspire. In occupations in which women perceive themselves to be minority group members, it may be especially important and inspiring for them to learn that an individual who shares their minority group status has attained such success. In addition, women may derive particular benefits from gender-matched role models because such models provide evidence that women like themselves can overcome gender barriers such as discrimination to achieve a high level of success in their fields.

As predicted, the role model's gender did not affect male participants' identification with the role model. This finding is consistent with a number of studies on mentoring that provide evidence that men do not differ in their perceptions of the effectiveness of same- and cross-gender mentors (e.g., Noe, 1988; Ragins & Cotton, 1999). However, this finding is inconsistent with other studies that suggest that males report more role modeling by same-gender than cross-gender mentors (e.g., Scandura & Williams, 2001). Unexpectedly, male participants' self-evaluations were not significantly boosted after exposure to the role models. Past research has suggested that role modeling may be less important for males than for females. For example, one study found that male protégés were less likely to report role modeling of same- or cross-gender mentors than were female protégés with same-gender mentors; that is, women were especially likely to view their same-gender mentor as an example to emulate (Ragins & McFarlin, 1990). Men may have less need for role models than do women because they do not expect to face the same kinds of gender-related career barriers (Ragins, 1989). In the present research, male participants' self-evaluations may have been unaffected by the role models because they had no need for an exemplar of success in their field.

In sum, Study 1 supports the hypothesis that gender matching is important for women in determining their ability to map themselves onto a role model and view the model as an example of what they can become in the future. Study 1 also provides useful experimental evidence regarding women's responses to same- and cross-gender role models. Studies examining the impact of role models in organizational settings have tended to focus on role modeling provided by mentors; for pragmatic reasons, such studies have relied on retrospective self-report data provided by mentors and/or their protégés (e.g., Allen & Eby, 2004; Ensher & Murphy, 1997; Koberg et al., 1998; Ragins & McFarlin, 1990; Scandura & Williams, 2001). By exposing participants to role models in a controlled setting, and then assessing changes in their self-perceptions relative to a control group, Study 1 provides evidence that women's self-perceptions are more positively affected by same- than cross-gender exemplars of outstanding success in their fields. However, because only very limited demographic information regarding this sample was collected, it is difficult to assess the generalizability of these results. Moreover, this study was limited by a small sample size, which may have made it difficult to detect parallel effects among male participants. In future research, it will be useful to examine participants' responses to same- and cross-gender models in a larger sample.

STUDY 2: AN ASSESSMENT OF THE IMPACT OF GENDER ON INDIVIDUALS' PREFERENCES FOR CAREER ROLE MODELS

In Study 1, female participants rated themselves more positively after exposure to a female than male role model and also indicated greater identification with the female model. If women derive special benefits from the examples set by outstanding women in their fields, it seems likely that they will also choose female role models as a means of harnessing their career motivation in daily life. Thus, when asked about role models who have inspired them, women should be especially likely to report having female rather than male role models.

Because women are still in the minority in many professional occupations, however, both male and female college students who are at the outset of their careers have likely been exposed to a greater number of successful males than females in fields such as medicine, law, business, and science. Thus, unless these students are planning to pursue careers in more stereotypically female careers such as nursing or social work, students will typically have been exposed to more male than female potential role models. As a result, one would expect male students to be especially likely to report having male role models; even though they may not select role models based on gender similarity, they have simply been exposed to a larger pool of successful professional males. However, although women will also likely have been exposed to a greater number of successful males than females, women may nevertheless prefer female career role models because such role models highlight the possibility that someone like themselves can be successful.

In Study 2, I examined the role models that individuals choose in their day-to-day lives. Female and male college students described a career-related role model who had inspired them to work hard to achieve excellence. I expected that males would be especially likely to describe a male role model whereas females would be especially likely to describe a female role model. Moreover, I expected that female but not male participants would report that the gender of the role model was important in determining their choice.

Method

Participants

Participants were 103 female and 45 male Introductory Psychology students at the University of Toronto who received course credit for taking part in the study. Female ($M = 19.37$, $SD = 1.89$) and male ($M = 19.02$, $SD = 1.12$) participants did not differ significantly in age. The majority of participants (88.51%) were in their first year of college; the remaining participants (11.49%) were in their second or third year. Participants' cultural backgrounds included Western European ($n = 90$), Eastern European ($n = 18$), East and Southeast Asian ($n = 20$), and mixed European/East Asian ($n = 20$). Across cultural groups, 78.38% of participants were born in Canada.

Procedure

Participants were invited to take part in a study on role models. They were told:

> Take a moment to think about a person who has been a role model for you in your academic or career-related interests. This person may be someone who has inspired you because this person excelled in an area that you cared about, and this made you hopeful that you could do really well at that activity; as a result, you became motivated to work harder to achieve excellence yourself. This role model should be someone who set an example that you yourself hoped to follow in your own academic or career life in the future. This person may be someone you actually know, or someone you have never met.

Participants were then asked to briefly describe this role model. On the following page, they were asked to indicate the gender of the role model, their relationship to the model, and whether or not they knew this model personally. Next, they were asked, "Is the gender of this role model important in determining how he or she motivates you? That is, are you any more or less influenced by this person because of his or her gender?" Ratings were made on a 7-point scale with endpoints ranging from 1 (*this person's gender*

is not at all important) to 7 (*this person's gender is very important*). Participants were then asked to explain their response to this question in open-ended form. Finally, participants were asked to indicate their academic major and intended future occupation.

Results and Discussion

Gender of Role Model

I first examined the gender of participants' chosen role models. A chi-square analysis revealed that participants' gender influenced their choice of role model, $\chi^2(1) = 16.65$, $p < .001$. Among female participants, 63.1% selected a female role model, but only 36.9% selected a male role model. In contrast, among male participants, 75.6% selected a male role model, whereas only 24.4% selected a female role model. Thus, both women and men tended to choose same-gender role models. The majority of both female (89.2%) and male (84.1%) participants indicated that they knew their role model personally.

It is possible that women chose more female role models than did men simply because they were more likely to be pursuing careers in female-dominated occupations such as nursing or child care and so may have been exposed to more successful women than men in these fields. Using data from the U.S. Department of Labor, Bureau of Labor Statistics (2004) regarding the prevalence of women and men in occupational groups, career interests were coded as female-dominated if one third or fewer of the workers in that occupation were men (e.g., nursing, occupational therapy), as male-dominated if one third or fewer of workers in that occupation were women (e.g., computer programming, dentistry), and as gender-neutral if between one and two thirds of workers in the occupation were women (e.g., high school teaching). Canadian labor statistics (Statistics Canada, 2003) yielded a similar breakdown of occupations by gender. Among female participants, 11.7% were planning to pursue careers in female-dominated occupations, 42.7% were planning to pursue careers in gender-neutral occupations, and 23.3% were planning to pursue careers in male-dominated occupations; an additional 19.4% indicated that they had not yet chosen a future occupation. Among male participants, none were planning to pursue careers in female-dominated occupations, 44.4% were planning to pursue careers in gender-neutral occupations, and 35.6% were planning to pursue careers in male-dominated occupations; an additional 15.6% indicated that they had not yet chosen a future occupation. Finally, 2.9% of female participants and 4.4% of male participants described two possible future occupations that crossed the coding categories above (e.g., nurse and doctor), and so could not be coded.

Given that only a small number of women were planning to pursue careers in female-dominated occupations, it seems unlikely that the majority of women in this sample chose women as role models simply because they were in career areas that lack examples of successful males. Indeed, among female participants who chose a career that could be coded in one of the three categories ($n = 80$), career goal type (female-dominated, gender-neutral, or male-dominated) was not associated with the gender of the role model selected, $\chi^2(2) = 2.04$, $p = .36$. Moreover, women often chose female role models who overturned rather than confirmed traditional gender role stereotypes, as will be discussed below.

Role of Gender in Determining Motivating Impact of Role Model

I then examined participants' beliefs that the gender of the role model played a role in determining how that person motivated the participant. Female participants' ratings ($M = 2.94$, $SD = 2.10$) of the importance of gender did not differ significantly from male participants' ratings ($M = 2.33$, $SD = 1.86$), $F(1, 144) = 2.80$, $p = .10$. I also examined whether the importance of gender would be related to the gender of the model. A 2×2 (participant gender by gender of role model) ANOVA revealed a significant interaction, $F(1, 142) = 5.40$, $p = .02$. Female participants who chose a female role model reported that this model's gender was more important ($M = 3.80$, $SD = 2.03$) than did female participants who chose a male role model ($M = 1.46$, $SD = 1.22$), $p < .001$. In contrast, male participants' ratings of the importance of gender did not differ significantly between participants who chose a female ($M = 2.83$, $SD = 2.33$) or male ($M = 2.15$, $SD = 1.66$) role model, $p = .28$. For male participants, the gender of the role model did not appear to play an important role in determining how motivated they were by that person, and this was true regardless of whether participants chose a same- or different-gender model. In contrast, women who chose a female role model were especially likely to report that the role model's gender played a role in determining how they were motivated by that person.

I also examined female participants' open-ended responses to the question regarding the degree to which the gender of the role model had determined their motivation by that role model. Whereas some participants noted that their female role models were more obviously similar to themselves (e.g., "It is easier to be motivated/inspired by someone who appears to reflect aspects of yourself; the most obvious thing to have in common with someone is gender"), or that they felt especially close to a same-gender other (e.g., "usually a mother has a closer relationship with a daughter than the father does"), others made an explicit reference to the fact that their role model had overcome some form of gender barrier. Because women may face career challenges associated with their gender, such as overcoming a glass ceiling or being forced to prove themselves in a male-dominated field, women may be especially likely to choose role models who illustrate the possibility of overcoming

such barriers. To examine this possibility, participants' open-ended explanations of their responses to the gender importance question were coded by two independent judges, unaware of the experimenter's hypotheses, for any indication that participants were inspired by the model's ability to surmount gender-related career obstacles. Specifically, coders assessed whether participants who described a female role model mentioned that the model was successful in a male-dominated field, had overcome negative stereotypes about women, or had overcome obstacles associated with being a professional woman. For example, one female participant wrote, "My role model in academics is Marie Curie. She worked hard throughout her life to make great contributions to the fields in chemistry/nuclear physics at a time when women were considered intellectually inferior to men. She became the first person to win 2 Nobel prizes. She motivates me to achieve excellence in some field of science, and to work hard to reach my goals." Another participant focused on a prominent CEO, a role model who illustrated the ability to overcome gender-related barriers: ". . . she accomplished more things than ordinary men do. And she encountered so many difficulties because of her gender and she still tried to overcome and survive in the wild business world." Another woman who described her mother, a businessperson, as her role model noted, "gender is important in this case because being a woman in today's society in the workforce and being able to attain a position at the top is something that is not as common for women as it is for men." Other participants described women who actively fought against negative stereotypes of women; one woman observed of her sister, "She is a feminist [who] dares to speak up and fight for what she wants. And she is always ready to do something against the stereotypes of females, in order to prove that the stereotypes are wrong . . . I would like to be as strong and daring as she is." Twenty-seven percent of the female participants indicated that the woman they described had faced and overcome gender-related obstacles. Only one male who described a female role model mentioned gender-related obstacles. Presumably, because males would not expect to face such obstacles, they would be unlikely to choose a role model based on the model's ability to surmount gender-related barriers. Thus, women may choose female role models in part because they provide important evidence that women can achieve career success despite gender barriers; this overcoming of obstacles appears to be one component of what transforms these successful women into role models for other women.

Overall, the results of Study 2 support my hypotheses that women may derive special benefits from gender-matched role models. Women were more likely to nominate a female than a male role model, and those who chose a female role model were more likely than those who chose a male role model to indicate that the role model's gender played a role in determining the motivating impact of that model. This finding provides evidence that women choose female role models, in part, because these models are women: They illustrate the kinds of achievements for which other women can strive and highlight the possibility of overcoming gender-related barriers to success.

Like the female participants, male participants were more likely to choose same- than cross-gender models; however, they reported that gender was not an important factor in determining their choice. Unfortunately, in the present study, there is no way to ascertain whether male participants selected male role models because they identified more with such models or whether they had simply been exposed to a far greater pool of successful males.

It is important to note that both female and male participants indicated that gender was a relatively unimportant factor in their choice of role model (Ms = 2.94 and 2.33, respectively, on a 7-point scale). In selecting a role model, individuals may take a number of other features into consideration, including similarities in the domain of the model's success and the beliefs and personality characteristics of that model. For example, research suggests that similarity in attitudes is a better predictor than demographic similarity in determining protégés' satisfaction with their mentors (Ensher et al., 2002). Thus, although gender may play a role in determining individuals' choice of role models, a number of other factors also likely influence this choice. Alternatively, it is possible that individuals may not be aware of the influence of gender in determining whom they select as a role model. It has long been recognized that individuals cannot always accurately report on the factors that influence their behaviors (Nisbett & Wilson, 1977). Thus, it is possible that the impact of gender on individuals' perceptions of successful others occurs at least to some extent outside their conscious awareness. This study relied on participants' self-reports of the impact of gender, and such self-reports may not be entirely accurate.

Indeed, the retrospective self-report methodology is a limitation of this study. Participants simply recalled role models who had motivated them in the past. It is possible that participants believed that they should have been especially motivated by same-gender role models or may have found it easier to recall examples of same-gender models, but may nevertheless have been equally strongly influenced by cross-gender models in the past. However, the finding that female participants appeared to derive special benefits from same-gender models is consistent with the results of Study 1, which did not rely on retrospective reports.

GENERAL DISCUSSION

Taken together, these two studies suggest that matching on gender is important in determining the relevance and impact of career role models for women. In Study 1, women were more positively affected by a female than a male role model, and tended to identify more with the female model. In Study 2, women were more likely to nominate female than male role models, and women who chose a same-gender role model were most likely to report that gender

influenced their role model choice. Thus, women may derive particular benefits from female role models. Because women may expect to face gender-related obstacles in their careers, it may be especially important for them to know that another woman has been successful. Indeed, 27% of the women in Study 2 explicitly stated that it was important for them to have a role model who had overturned gender stereotypes or achieved success in a traditionally male-dominated field.

These studies did not provide clear evidence regarding the importance of gender matching for men. In Study 1, male participants did not differ in their responses to or identification with male and female role models. However, contrary to predictions, men were not positively affected by male and female role models relative to a control group. In Study 2, men were more likely to nominate a male than a female role model as someone who had motivated them in the past. However, it is not clear whether men chose same-gender models because they identified more with same-gender others who had achieved success or whether they had simply been exposed to more examples of successful professional men in their chosen field. Overall, Studies 1 and 2 are consistent with our hypothesis that gender-matching is important for women but less important for men.

Past research suggests that one must be able to identify one's future self with a role model if one is to be inspired by that role model (Lockwood & Kunda, 1997, 1999). The successful other serves as a guide, an example that one can follow in pursuing one's goals. Similarly, Wheeler, Martin, and Suls (1997) and Martin, Suls, and Wheeler (2002) have suggested that comparison others can serve as "proxies"; that is, people can evaluate their ability to perform a novel task by comparing themselves to similar individuals who have already attempted the task. For example, if people wish to assess whether they can run 10 kilometers, they can compare themselves to another individual, similar to themselves, who has already attempted such a run. Because women may face gender-related barriers to high-status positions in their careers, a successful female may be a useful proxy for determining their own potential for future success; in contrast, the achievements of an outstanding man provide little information about their potential attainments. For women, gender may be viewed as an attribute that is related to performance outcomes (Goethals & Darley, 1977). As such, gender similarity will play a role in determining the kinds of social comparisons that women make.

Female role models may not only be useful examples for women who are attempting to determine their potential for future achievement, they also may provide a means of undermining stereotypes that might otherwise threaten their career performance. If women expect to perform at a lower level than men, this can cause anxiety, which in turn can impair performance (Spencer et al., 1999). This "stereotype threat" can be alleviated by the presence of successful women; for example, two studies found that women performed better on a math test when they had first been exposed to either a math-competent female experimenter (Marx & Roman, 2002), or to examples of women who had achieved success in nontraditional careers (McIntyre, Paulson, & Lord, 2003). Thus, women in nontraditional careers who have strong female role models may actually perform better in their careers on a day-to-day basis than women who do not. In future research, it will be useful to examine the long-term impact of role models on women's career performance, and to assess whether gender-matched role models are particularly important for women in nontraditional careers.

In sum, female role models may be especially beneficial for women for a variety of reasons: Outstanding women can function as inspirational examples of success, illustrating the kinds of achievements that are possible for women around them. They demonstrate that it is possible to overcome traditional gender barriers, indicating to other women that high levels of success are indeed attainable. Female role models can also serve as proxies, guides to the potential accomplishments for which other women can strive. Finally, by demonstrating their competence in traditionally male occupations, highly successful women may undermine traditional gender stereotypes about women, thus reducing the damaging potential of stereotype threat effects.

It is important to note that Studies 1 and 2 examined the importance of gender matching of role models rather than mentors. Past studies on role models in organizational contexts have typically focused on models who were also mentors (e.g., Scandura & Williams, 2001; Sosik & Godshalk, 2000). Moreover, a number of studies that have assessed role modeling by mentors as part of a measure of psychosocial support did not report results for role modeling separately from other psychosocial mentoring functions (e.g., Allen & Eby, 2004; Ensher & Murphy, 1997). However, evidence regarding the importance of gender matching of mentors may not apply to role models. Although role models may often be mentors, individuals may also at times model their behavior on successful others who do not offer the career or emotional support that mentors provide; individuals may even choose role models who are complete strangers to them. Study 1 provides evidence that women are positively affected by same-gender exemplars of success even when these exemplars do not provide the career, emotional, and social support typically associated with mentoring. Nevertheless, it seems likely that gender may take on a different importance in relationships with actual mentors who provide support beyond role modeling. For example, male mentors may be better positioned than their female counterparts to groom protégés, male or female, for future promotions because males often have more power in organizations (Koberg et al., 1998). Although women may identify with and model their behavior after successful female role models, they may nevertheless benefit in some ways from having male mentors. Thus, the results of the

present studies may not generalize to other forms of mentoring relationships.

In addition, these studies were limited to an examination of the career role models of college students. College students' role models are important because role models may influence the students' motivation to choose and pursue a given career over the course of their studies. However, the present sample limits the generalizability of the findings. The average age of the participants in these studies was 19 years. Perhaps once individuals are older, at a more advanced stage in their college education, or have finished school and started a job, they will choose role models based on different criteria. It is possible that matching on gender is less important in determining the impact of a role model in a work environment when one is familiar with the role model and therefore likely aware of similarities one shares with the model other than gender. In future research, it will be useful to examine further how gender matching influences the impact of such role models in organizational settings.

This research examined the importance of gender matching in determining the impact of role models on the self. Matching on other demographic factors, such as race, will also likely be an important factor determining the relevance of role models (cf. Ensher & Murphy, 1997; Koberg et al., 1998). Specifically, members of racial minorities may, like women, derive particular benefits from the example set by a successful member of their own group and be less strongly influenced by successful members of outgroups. When members of a group are in the minority in a particular occupation, or are stereotyped as being incompetent in that career domain, it may be especially important for them to know that someone like themselves has been successful. Thus, an aspiring Black medical student may be especially inspired when she hears about a successful Black doctor. Such an example can undermine negative stereotypes about the minority group and provide evidence that success is possible despite barriers associated with racial discrimination. In future research, it will be important to examine the impact of same- and different-race role models on members of minority groups.

These studies have practical implications for the use of role models in motivational programs. A variety of agencies use role models as a means of boosting self-esteem and motivation: Companies showcase the talents of successful employees to raise morale and achievement goals, government agencies and private groups highlight the achievements of outstanding minority group high-achievers to foster the self-esteem and ambitions of other group members, and schools emphasize the successes of outstanding women to encourage girls in their pursuit of nontraditional careers. Given the prevalence and expense of such programs, it is important to evaluate the circumstances under which role models are most likely to inspire their audiences. These studies suggest that, all things being equal, matching on gender will be especially important in determining the relevance of role models for women.

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