A Meta-Analytic Investigation of Gender Differences in Mentoring

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This meta-analysis investigates gender differences in mentor- and protégé-reported experience in mentorships as well as career and psychosocial benefits. There are no gender differences in experience as a protégé or protégé receipt of career development, but male protégés report receiving less psychosocial support than female protégés. Furthermore, males are more likely to serve as mentors than females and report giving more career development than female mentors. Conversely, female mentors report providing more psychosocial support than male mentors. In most cases, effect sizes are small and heterogeneous, providing important implications for future research.

Keywords: mentor; protégé; mentoring functions

Previous research has demonstrated beneficial outcomes for protégés in mentoring relationships. Specifically, meta-analytic research has supported the conclusion that individuals with a mentor accrue substantial benefits, such as increased compensation and more frequent

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promotions (Allen, Eby, Poteet, Lentz, & Lima, 2004). Given the positive outcomes associated with mentoring, it is important to examine whether males and females have equal access to mentoring relationships and whether they receive the same degree of career and psychosocial benefits from mentoring.

Many researchers have examined the role of gender in mentoring relationships (e.g., Ragins, 2007; Wanberg, Welsh, & Hezlett, 2003). Mentoring is well documented as a tool that can help females advance within organizations (Ragins, 1999). Females who have achieved a high level of success in organizations frequently mention the presence of a mentor as one of the reasons for their success (Ragins, Townsend, & Mattis, 1998). Although mentoring appears to be advantageous for all employees, it may be particularly helpful for females because of the additional barriers to career advancement they encounter (Wanberg et al., 2003). However, because women generally have less power within organizations than do men, it has been suggested that women may not have equal access to developmental relationships (Ragins, 1999).

Several qualitative reviews have examined whether males and females have differential access to mentoring relationships. These reviews generally indicate no gender differences in reports of having been a protégé (e.g., Wanberg et al., 2003). In other words, males and females are equally likely to experience a mentoring relationship. However, the existing empirical research is inconsistent regarding the degree of specific mentoring behaviors provided to males and females. For example, some research shows that females may give and receive different amounts of career development or psychosocial support than males, whereas other research suggests that there are no differences in the levels of mentoring across gender (Wanberg et al., 2003). Also important is the issue of who is likely to be a mentor. Lack of female mentors has been a concern expressed in mentoring and gender research (e.g., Ragins, 1999). The purpose of the present study was to empirically assess these issues through meta-analysis. Specifically, we investigated whether there are differences in experience as a protégé and differences in experience as a mentor across gender. Additionally, we examined whether levels of career development and psychosocial support vary across gender, using both protégé reports of mentoring behaviors received and mentor reports of mentoring behaviors provided.

**Overview of Mentoring Relationships**

Traditionally, mentoring occurs between a less experienced worker and a more experienced worker (Kram, 1985). Such relationships are intended to facilitate the personal and professional development of the less experienced individual (Mullen, 1994). Mentors are thought to provide two unique forms of mentoring functions, namely, career development and psychosocial support (Kram, 1985). Career development refers to actions that advance the protégé within the organization, such as coaching, sponsorship, exposure, protection, and providing challenging assignments. Psychosocial support refers to the interpersonal aspects of the mentoring relationship, such as counseling, friendship, acceptance, and role modeling behaviors. Both types of mentoring behavior provide important individual benefits. For example, career development predicts career success, as measured by compensation and promotion, whereas psychosocial support is associated with increased satisfaction with the mentoring relationship (Allen et al., 2004). In summary, it seems that both aspects of mentoring play an important role in the overall development and direction of a mentoring relationship.
Power and Gender in Mentoring

As mentioned previously, there has been a great deal of both empirical and theoretical interest in the role of gender in mentoring relationships. A major reason for this interest is that it remains the case that many key positions in organizations are held by males (Fletcher & Ragins, in press). Ragins and Sundstrom’s (1989) theory of power and gender in organizations describes how women face substantial obstacles in obtaining a mentor, including individual, interpersonal, organizational, and societal barriers because of their lower power position.

Individual barriers reflect characteristics of women that could inhibit efforts to obtain a mentor. For example, women may not realize the importance of mentoring or lack the skills necessary to obtain a mentor (Ragins, 1989). Interpersonal barriers describe difficulties that women encounter during interactions with potential mentors, such as lack of perceived similarity. Specifically, the degree that the mentor can identify with and relate to a potential protégé can affect the initiation of a mentoring relationship (Ragins, 1989). Likewise, perceived similarity between the mentor and the protégé is positively related to interpersonal attraction (Turban, Dougherty, & Lee, 2002). Because mentors are typically of higher organizational status and, therefore, more likely to be male, female protégés may have more difficulty with the identification process that is critical to the development of mentoring relationships. These same processes may make it more difficult for a female to assume the role of mentor within the organization (Ragins & Cotton, 1993).

Organizational barriers, such as a lack of contact with potential mentors, may obstruct women from developing mentoring relationships (Ragins & Sundstrom, 1989). Specifically, women are disproportionately represented in staff and support departments, whereas men are more likely to be in higher power departments, such as production (Ragins & Sundstrom, 1989). Therefore, women may lack interactions with potentially powerful mentors (Noe, 1988a) and have limited access to resources that enable them to mentor others. Societal barriers include possible mentoring access issues in the context of the larger social system. For example, gender-typed jobs and careers exist, perhaps as a result of self-selection and socialization processes, and can affect the development of mentoring relationships (Ragins & Sundstrom, 1989). In sum, gender may influence access to mentoring and the ability to be a mentor through differences in organizational status that pervade the workplace.

More recent conceptualizations of gender and mentoring use relational culture theory (RCT) to identify issues relevant to mentoring relationships (e.g., Fletcher & Ragins, in press). Whereas most conceptualizations of gender consider gender an individual difference, RCT focuses on the cultural aspect of gender. RCT posits that people with less power are forced to develop relational skills to recognize and meet the implicit requests of people with higher power. These skills, consequently, are associated with less power. This has several implications for mentoring. Specifically, women may be valued less than men as potential mentors. Additionally, there may be a greater emphasis on the psychosocial aspects of mentoring within relationships that include a female mentor or protégé (Ragins, 2002).

In sum, several theories provide ample reason to suspect that the mentoring experiences of men and women will differ. The following sections provide specific hypotheses for protégés and for mentors.
Protégé Gender in Mentoring Relationships

Empirical studies have investigated whether protégé gender plays a role in the type of mentoring the protégé receives. However, these studies tend to provide contradictory evidence, as noted in three qualitative reviews of the literature (O’Neill, 2002; Ragins, 1999; Wanberg et al., 2003). Specifically, many of the hypothesized relationships between protégé gender and mentoring have received mixed support, making it difficult to determine if protégé gender plays a role in access to mentoring or to the amount of mentoring received.

With regard to access to mentoring, it has been suggested that women face greater barriers than do men when attempting to develop a mentoring relationship (e.g., Noe, 1988a; Ragins, 1997). For example, Noe (1988a) points out that female employees may face lack of access to information networks, tokenism, stereotypes and attributions, socialization practices, and other barriers that may prevent access to mentoring relationships. Ragins and Sundstrom (1989) describe individual, interpersonal, organizational, and societal barriers that may deter women from developing mentoring relationships.

In recent years, a growing number of companies have implemented formal mentoring programs (Allen, Eby, & Lentz, 2006). Because of the barriers that impede women from forming mentoring relationships, at least some of these formal mentoring programs are designed specifically to benefit female employees (Finkelstein & Poteet, 2007). Consequently, it is possible that women may have equal access to a mentoring program. This is consistent with qualitative reviews of the research in this area, which generally concludes that males and females are equally likely to have obtained protégé experience (e.g., Ragins, 2007). Based on these findings, we propose the following hypothesis:

Hypothesis 1: Males and females are equally likely to report experience as a protégé.

Regardless of whether males and females have similar access to mentoring relationships, the type of mentoring received may differ. There are several theoretical reasons to expect that even after initiation of a mentoring relationship, males and females may have different experiences. One potential explanation for a relationship between protégé gender and mentoring functions received may be that men and women may differ in the type of mentoring necessary to succeed in an organization (Wanberg et al., 2003). For example, men may be expected to engage in more career development activities, such as networking on the golf course, than females. Likewise, females may be more likely to experience negative work situations (e.g., work–family conflict, discrimination) because of their lower organizational power than males, consequently requiring more psychosocial support from a mentor to succeed in the organization.

Furthermore, according to social role theory, men and women are more comfortable with behaviors that are consistent with their identity (Bem, 1974). For example, because the feminine gender role encourages women to be compassionate and nurturing, women tend to have greater comfort with intimacy, which would suggest that they have greater comfort with psychosocial mentoring than men. Conversely, agentic relationships are associated more with men because of their position of greater power within organizations. Consequently, men may be more comfortable with career mentoring than females. As such, protégés may seek...
mentoring consistent with their gender roles and may even show discomfort with other mentoring behaviors. This discomfort may discourage their mentors from providing such mentoring behaviors or suppress protégé reporting of those behaviors when they occur.

Indeed, some empirical data have been consistent with these theoretical perspectives (e.g., Burke & McKeen, 1990; Burke, McKeen, & McKenna, 1990, 1994). Specifically, prior research has demonstrated that male protégés receive more career development (e.g., Koberg, Boss, Chappell, & Ringer, 1994; McGuire, 1999) and less psychosocial support (e.g., McGuire, 1999) than female protégés. However, other studies show no differences (e.g., Noe, 1988b; Ragins & McFarlin, 1990). Thus, there is some ambiguity as to whether protégé gender affects mentoring functions received, as noted in previous reviews of the literature (O’Neill, 2002; Ragins, 1999). Despite mixed empirical support, based on theory, we propose the following hypotheses:

**Hypothesis 2a:** Male protégés report receiving more career development mentoring than female protégés.

**Hypothesis 2b:** Male protégés report receiving less psychosocial mentoring than female protégés.

**Mentor Gender in Mentoring Relationships**

Mentor gender may also impact the mentoring process but has received less attention in the study of mentoring relationships. Despite the lack of attention, researchers have suggested that mentor gender has a more important role on protégé outcomes than does protégé gender (e.g., Dreher & Cox, 1996). As a result, it is important to determine whether males or females are more likely to serve as a mentor and whether gender relates to reports of mentoring provided.

Males may be more likely to serve as mentors than females, based on their generally higher position of power within the organization (Ragins, 1997). Specifically, according to Ragins’s (1997, 2002) theory of diversified mentoring relationships, gender affects mentoring relationships because the mentor and protégé are members of groups that possess differing degrees of power within organizations. Because of their higher position, males may be more likely than female employees to be targeted by subordinates as a potential mentor or be assigned as a mentor to a more junior employee. Likewise, females may be less willing to take on a protégé because protégé failure may reflect poorly on the mentor, and the traditionally more precarious organizational status of females may make the risk less acceptable than for a more established male employee (Ragins, 1999).

Despite these theoretical reasons for differences in likelihood to mentor, there has been little empirical consensus. Some research has found that males are more likely to mentor than females (e.g., Ragins & Cotton, 1993), but other studies show that males and females are equally likely to report that they have been a mentor others (e.g., Allen, Poteet, Russell, & Dobbins, 1997; Ragins & Scandura, 1994). Again, despite the mixed empirical support, we propose the following hypothesis based on theory:

**Hypothesis 3:** Males are more likely to report experience as a mentor than are females.
Similarly, little research has addressed differences in the type of mentoring behaviors that males and females report providing. Research in social psychology has demonstrated that males and females may differ in how they participate in relationships, in general. Consistent with Eagly and Crowley’s (1986) social role theory, research has shown that males communicate in a more instrumental manner, whereas females focus more on the nurturing and emotional aspects of relationships, consistent with the social norms for male and female behavior (Burleson, Kunkel, Samter, & Werking, 1996; Markiewicz, Devine, & Kausilas, 2000). These effects are particularly pronounced in long-term, close relationships, as opposed to spontaneous interactions with strangers (Eagly & Crowley, 1986). Mentoring, therefore, may be a type of workplace relationship in which behaviors consistent with these social roles are evidenced. This is consistent with RCT, which states that women act as relational carriers and are expected to exhibit empathy and emotional openness with other people (Fletcher & Ragins, in press). Additionally, males may have greater ability to provide career assistance because of their stature in the company, according to Ragins’s (1997) theory of diversified mentoring. These different relationship styles have implications for the type of mentoring functions provided. Specifically, it seems likely that male mentors will provide more assistance in career development, whereas female mentors will provide more psychosocial support.

Despite theory supporting gender differences in mentoring behaviors provided, relatively little empirical research has tested these relationships, and the limited existing empirical research is inconsistent (Ragins, 1997). Specifically, some research has found no differences in amount of career development or psychosocial support that male and female mentors report giving (e.g., Burke & McKeen, 1997). Other studies have found gender differences in reported mentoring functions. For example, one such study found that females reported higher levels of career development and psychosocial functions than males (Burke et al., 1994). Other research has shown inconsistent relationships between gender and mentoring functions provided. Specifically, one study found that gender was related to mentoring functions provided when no control variables were included (Ragins & McFarlin, 1990). However, when variables such as rank and department were included as control variables, the relationship between gender and mentoring functions dissipated.

Overall, it seems that theoretical arguments for gender differences in reported mentoring have received conflicting evidence in empirical investigation. Some of the empirical research may be influenced by the use of control variables, which may partial out variance related to the research question at hand. For example, theory suggests that males will be more likely to serve as mentors because of their higher organizational status. Because some prior research has controlled for organizational status, these relationships may be attenuated. Therefore, due to a wealth of theoretical support for a relationship between mentor gender and mentoring functions provided and a lack of convincing empirical evidence against such a relationship, we propose the following:

**Hypothesis 4a:** Male mentors report providing more career development than female mentors.

**Hypothesis 4b:** Male mentors report providing less psychosocial support than female mentors.

In summary, many empirical studies and theoretical reviews have focused on the role of gender in mentoring; however, there is no general consensus regarding whether mentoring
experiences are different for mentors or protégés based on their gender. The current study uses a quantitative review of the literature in this area to help assess the state of the literature regarding the effect of gender on mentoring from both the mentor’s and protégé’s perspective.

**Method**

**Literature Search**

Several methods were used to identify studies for the meta-analysis. First, a computerized search of PsycINFO and ABI was conducted using the terms *protégé*, *mentor*, and *mentoring*. Because this meta-analysis focuses on workplace mentoring relationships, studies investigating youth or student–faculty mentoring relationships were eliminated from the pool. Manual searches of journals that commonly publish articles on workplace mentoring (e.g., *Journal of Vocational Behavior*) were also conducted. In addition, recent reviews (e.g., Ragins, 1999, 2007; Wanberg et al., 2003) were searched to identify citations. Key contributors to the field and authors who presented mentoring research at the *Society for Industrial and Organizational Psychology* and *Academy of Management* from 2000 to 2005 were contacted for unpublished or in press studies. We identified 206 potential studies that spanned from 1984 to June 2007.

**Criteria for Inclusion**

To be included, the study had to meet several criteria. First, the study was required to have been conducted in a workplace setting. In addition, the study must have reported a Pearson’s correlation or an effect size that could be transformed into a Pearson correlation for one of the independent variables (protégé gender or mentor gender) and one of the dependent variables (e.g., experience as a protégé). This correlation must have reflected data from original databases, which excluded meta-analyses and studies that used archival data. Furthermore, several studies reported a composite mentoring variable in which career development and psychosocial support were combined, and such composites were excluded. The final count included 40 published articles and 1 conference paper (see appendix), resulting in 108 effect sizes. Two authors independently coded each study resulting in interrater agreement of more than 98%. Disagreements were resolved through discussion and consensus.

**Statistical Procedure**

We followed Lipsey and Wilson’s (2001) procedure for analysis. Following the recommended procedure (Hedges & Vevea, 1998), correlations were first transformed using Fischer’s *r* to *z*. The weighted average of Fisher *z* values was computed using study weights *N*-3, where *N* is each study’s sample size. Following the arguments of Rosenthal (1991), no artifact corrections beyond sampling error (e.g., unreliability, range restriction) were computed.
Fixed- Versus Random-Effects Models

The random-effects model is appropriate when it is reasonable to believe that the effects of interest are likely to be influenced by the research context (e.g., the business environment), and thus, mean effects are likely to vary at the level of the population. As such, it is appropriate to use random-effects models in most research questions (National Research Council, 1992). However, the random-effects model does not control the Type I error rate when the number of studies is small. Specifically, the probability to detect small effect sizes is less than .3 when there are 15 or fewer effect sizes, according to a Monte Carlo study (Field, 2001). Consequently, when the effect sizes are heterogeneous, the test may be inaccurate unless the number of effect sizes is very large (i.e., greater than 30; Field, 2001). In the current study, we used the fixed-effects model to report means, significance testing of means, standard error, and confidence intervals when there were 15 or fewer studies, as suggested by Field (2001), and the random-effects model when there were more than 15 studies. Specifically, in the random-effects model, weighted means were recomputed when the \[REVC\] (random effects variance component) was greater than zero, using the Hedges and Vevea (1998) method. It is important to note that it is not mathematically appropriate to compare across fixed- and random-effects models when interpreting the results of this study (Field, 2001).

In all cases, the \[REVC\] and \[Q\] statistic were computed under the random-effects model and reported to facilitate interpretation of the research findings. Because the fixed-effects model assumes that the effect sizes are homogenous, there is no way to compute measures of heterogeneity using the fixed-effects model. Specifically, we present the \[REVC\], which is the estimate of the variance of the underlying population effect across contexts. Also, we report a \[Q\] statistic that tests the null hypothesis that population effects are constant (e.g., that the mentor gender effect on protégé career functioning is constant across research contexts). Essentially, the \[Q\] statistic is a test of the hypothesis that the \[REVC\] is zero in the population of studies. Large, significant values of \[Q\] indicate that the effect sizes are influenced by contextual factors; that is, they indicate the presence of moderators. After testing and estimation, the results were converted back to \[r\] to communicate the results in the original metric.

Variables Included in Analysis

\textit{Gender}: All correlations have been transformed so that positive correlations reflect a trend favoring females, whereas negative correlations reflect a trend favoring males.

\textit{Mentoring functions}. Multiple measures have been created to measure career and psychosocial mentoring (e.g., Kram, 1985; Ragins & McFarlin, 1990). Role modeling has also been placed into a separate dimension (Scandura & Katerberg, 1988). In the current study, this subscale was combined with psychosocial support, similar to previous research (e.g., Allen et al., 2004). This calculation was performed using the formula provided by Hunter and Schmidt (2004). Specifically, the formula requires averaging the correlations between the subscale scores (role modeling and psychosocial support) and the variable of interest (protégé gender or mentor gender). This result is then divided by the correlation among subscale scores, and weighted by \(N\).
There were three studies that measured facets of career development or psychosocial support (e.g., career planning, taught skills, sponsorship, and feedback for career development) but included no overall scale score. Because these articles did not report correlations among subscales, the facets were simply averaged.

**Results**

**Protégés**

Results are provided in Table 1. Hypothesis 1 concerned whether males and females were equally likely to report experience as a protégé. The mean correlation was not significant ($r = –.01, p = \text{nonsignificant [ns]}$), with a 95% confidence interval ranging from $–.04$ to $.01$, indicating that there is no difference in protégé experience across males and females. This is consistent with our hypothesis. The $Q$ statistic was large, indicating that moderators may potentially influence the relationship between protégé gender and protégé experience ($Q = 14.94, p = .06$). Hypothesis 2a suggested that male protégés would report greater career development mentoring than would females. Contrary to expectation, no differences were detected ($r = .01, p = \text{ns}$). The 95% confidence interval ranged from $–.02$ to $.05$. Hypothesis 2b concerned whether males and females would report receiving equal amounts of psychosocial support. Female protégés reported more psychosocial support, as expected ($r = .06, p < .001$), than did male protégés. The 95% confidence interval ranged from $.02$ to $.10$. The $Q$ statistic for both analyses in Hypothesis 2 was large and significant ($Q = 44.63 – 51.14, p < .01$), suggesting considerable heterogeneity.

**Mentors**

Hypothesis 3 concerned whether males or females were more likely to report having served as a mentor. The correlation was significant, consistent with expectation, such that males were more likely than females to report serving as a mentor ($r = –.07, p < .01$). The 95% confidence interval ranged from $–.12$ to $–.01$. The $Q$ statistic was significant ($Q = 13.43, p < .01$), suggesting heterogeneity of the effect sizes. Hypothesis 4a examined whether male and female mentors would report providing the same amount of career development. The correlation was significant, such that male mentors reported providing more career development mentoring than did female mentors ($r = –.04, p < .05$), with a 95% confidence interval that ranged from $–.08$ to $–.01$. The $Q$ statistic was not significant for ($Q = 19.42, p = .14$), suggesting relatively homogeneous effect sizes. Hypothesis 4b analyzed whether male and female mentors would report providing the same amount of psychosocial support. The mean correlation was significant, which indicated that female mentors reported giving more psychosocial support than did male mentors ($r = .04, p < .05$). The 95% confidence interval ranged from $.01$ to $.08$. The $Q$ statistic was significant ($Q = 25.37, p < .03$), suggesting that the relationships between mentor gender and psychosocial support provided were heterogeneous.
Discussion

Previous theory and empirical research have emphasized the role of power and gender in mentoring relationships (e.g., Ragins, 1999; Wanberg et al., 2003). One goal of the current meta-analysis was to review these findings and provide a quantitative index of their magnitude. Our results suggest that gender differences in protégé-reported mentoring might not be as ubiquitous as previously suggested. Specifically, females were as likely as males to report experience as a protégé. Additionally, although previous researchers (e.g., Koberg et al., 1994; McGuire, 1999; Noe, 1988a) have suggested that gender differences in mentoring functions exist, the current meta-analysis did not find differences regarding the amount of career development received. In other words, male protégés did not report receiving more career development than did female protégés. However, we did find evidence suggesting that females receive more psychosocial support than do males. Another goal of this meta-analysis was to investigate mentor gender. Results suggest that males report serving as a mentor more often than do females. Likewise, male mentors report providing more career development than do female mentors. Female mentors, however, report providing more psychosocial support than do males.

The results regarding gender and psychosocial support are consistent with research in other areas of organizational behavior, which has found that compared to males, females experience greater intimacy in their friendships (e.g., Bank & Hansford, 2000; Fehr, 1996; Reis, Sencak, & Solomon, 1985). Behaviors such as self-disclosure, emotional support, and loyalty are agreed on by both males and females as indicative of intimate relationship formation; however, females engage in these types of behavior to a greater degree than do males (Fehr, 2004). The present meta-analysis provides additional support for these findings (to the extent that intimacy building behaviors are represented in psychosocial support) because females are involved in greater levels of psychosocial support from both the protégé’s and mentor’s perspective. This is consistent with RCT, which argues that women are relational carriers and are responsible for developing enhanced communication skills and using these

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Table 1
Descriptive Statistics of Meta-Analysis Variables

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<thead>
<tr>
<th>Hyp.</th>
<th>IV</th>
<th>DV</th>
<th>Model</th>
<th>k</th>
<th>N</th>
<th>Mr</th>
<th>p</th>
<th>SE</th>
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<td>.0030</td>
<td>51.19</td>
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Note: Hyp. = hypothesis; IV = independent variable; DV = dependent variable; k = number of studies; N = total sample size; Mr = mean correlation; p = significance of the correlation; SE = standard error; CI = confidence interval; LB = lower bound; UB = upper bound; REVC = random effects variance component; Qp = significance of the Q statistic. For gender, 1 = female; 0 = male. For experience, 1 = yes; 0 = no. For independent and dependent variables, M = mentor; P = protégé.
skills when interacting with others (Fletcher & Ragins, in press). In general, women may have higher-quality relationships because of their greater relational skills (Fletcher & Ragins, in press). Within the workplace, this relationship style can impact work outcomes for protégés, as psychosocial support is related to greater satisfaction with the mentor (Allen et al., 2004). This relationship, in addition to a parallel finding in the protégé-reported data, suggests that males and females may interact differently within the workplace. Future research may want to investigate mentoring relationships through an RCT framework instead of relying on traditional mentoring theories that are based on the experience of older, White male mentors (Fletcher & Ragins, in press).

In general, the results regarding the provision of career development mentoring and greater experience as a mentor among males are consistent with theories concerning gender and power in organizations. Because males typically have greater organizational tenure and rank, they may have a greater ability to provide mentoring in the form of career development because of this status in the company (Ibarra, 1993; Ragins, 1997; Ragins & Sundstrom, 1989). For example, males may have more experiences or resources to draw from when providing career development mentoring than females.

The Presence of Moderators

In most analyses, the $Q$ statistic was large and significant, precluding straightforward interpretation of the study effects. A large $Q$ statistic for a given effect size indicates that the relationship is heterogeneous, possibly because of the effect of moderators. In other words, large REVC and $Q$ values indicate that there is not a single population correlation, but there may be a range of population correlations depending on other factors, such as business environment. The large values of $Q$ indicate some degree of ambiguity in the reported mean effect sizes. Future research investigating the role of moderators in the relationship between gender and mentoring would help clarify why large $Q$ values were found for these effects.

One such potential moderator is the type of mentoring relationship (formal or informal). Type of mentoring relationship may act as a moderator in these relationships, because men and women may have differential access to informal or formal relationships (e.g., Thomas, 1990). Specifically, formal mentoring relationships are typically assigned by the organization and are often designed to benefit females (Kram & Hall, 1996). Informal mentoring relationships, however, are formed on a spontaneous basis and may be more available to males (Ragins, 1997). Given that informal mentoring has been found to be generally more beneficial than formal mentoring (Wanberg et al., 2003), it is important to determine whether such differences exist. Previous reviews have indicated that reporting this distinction is a research priority and necessary for the advancement of the mentoring literature (Wanberg et al., 2003); however, most of the studies reviewed in the current research did not specify whether the mentoring relationship was formal or informal. Future research should specify the nature of mentoring relationships to further our understanding of mentoring.

Another potential moderator is the gender composition of the mentoring dyad. Males are more likely to be in same-sex mentoring relationships than are females (Kram, 1985). Same-sex relationships may produce a different dynamic between mentor and protégé (e.g., Burke
et al., 1990; Sosik & Godshalk, 2000; Ragins, 1997; Ragins & McFarlin, 1990). Research on similarity–attraction in the mentoring relationship indicates that mentors are likely to accept protégés whom they find similar to themselves (e.g., Ragins, 1997). Likewise, previous studies have acknowledged that there may be tension between a male mentor and female protégé (Fitt & Newton, 1981). For example, males may feel tense due to a possibility of having benign, non-task-related mentoring behaviors (such as meeting at happy hour) perceived as harassment by a female protégé or coworkers and may, therefore, provide less psychosocial support to a female than to a male. Although several studies have investigated the role of dyad composition, there has not been enough of this research to include in the present meta-analysis. Gender composition of the mentoring dyad should be examined in future research to clarify the role of demographics in the mentoring relationship.

In accordance with theories on power and gender, such as RCT, the role of gender and social expectations of men and women may also be fruitful moderators for investigation. Specifically, gender roles and related constructs could be examined. For example, as suggested by Scandura and Ragins (1993), it may be that femininity and masculinity, as gender roles rather than gender per se, could influence the relationship between gender and mentoring. Additionally, gender roles function differently depending on culture. For example, for those who adhere to the culture of honor (such as the American South or some Hispanic cultures), affronts to a male are often met with violent attempts to maintain honor (Nisbett & Cohen, 1996). Such cultural values may result in interesting mentoring dynamics. Because the honor of a man is considered tenuous in these cultures and honor can be lost at any time if the man fails to meet a public challenge to his honor, males may have a difficult time seeking mentorship from a female or taking criticism from male or female mentors.

Further research is needed that can provide more insight into the role of race in mentoring. Our initial intent when conducting this research was to include race, but too few studies included correlations between race and mentoring to draw interpretable conclusions. Furthermore, whereas most studies investigating the role of race include data from Whites versus minorities, different findings may emerge for Blacks, Hispanics, Asians, or other racial groups. Previous reviews of the mentoring literature have indicated that the research on race and mentoring is too sparse to draw any generalized conclusions (Wanberg et al., 2003). Gender differences in mentoring may be intensified for minority women, who may encounter additional barriers because of a history of societal-level oppression. For example, according to RCT, White males may be considered champions of those less powerful when mentoring women, whereas coworkers may attribute a minority male’s attempt to mentor a minority female as reverse discrimination or an attempt to help their own (Fletcher & Ragins, in press). To develop the database of studies needed to meta-analytically examine race issues, future mentoring studies should measure and report race.

Finally, we suggest that the role of power and organizational status should be more directly addressed in future research. It is assumed that males hold more power and that this contributes to gender differences in mentoring. Operationalizing power in research is needed to better discern the way in which such factors play a role in mentoring. For example, although Ragins and Cotton (1993) found differences in the experience of mentoring among lower- and mid-level managers and employees, Ragins and Scandura (1994) found no differences among executive-level men and women. Variables such as rank, position, and access to resources should be tested as moderators in future research.
Practical Implications

Many researchers have focused on gender differences in access to mentors as well as mentor functions (e.g., Ragins, 1999; Wanberg et al., 2003). Mentoring has been suggested as a strategy for females to advance past the glass ceiling (Morrison & Von Glinow, 1990). The Federal Glass Ceiling Commission (1995, p. 18) proposed that a lack of mentoring in organizations is an “internal structural barrier within the direct control of business” that contributes to the glass ceiling. According to our meta-analysis and previous qualitative reviews (e.g., O’Neill, 2002; Ragins, 1999; Wanberg et al., 2003), females do not receive different mentoring than their male counterparts, for the most part. Specifically, the mean effect sizes in the meta-analysis were small, indicating weak effects of gender on the experience of mentoring. Taken at face value, the results indicate that, on average, gender has little impact on the initiation or functions of mentoring relationships. The discrepant results appear to be due to sampling error, and meta-analysis is beneficial because it allows us to identify when this occurs. These findings suggest that the glass ceiling may instead be a function of broad, societal-level factors that are difficult to identify and empirically examine.

Although the effect sizes were small, they should not be dismissed, because even small main effects can substantially impact the organization and its employees involved. For example, in a qualitative study of mentoring experiences among top executives in which 15 chief executive officers (CEOs) were interviewed, every CEO stated that mentoring was a key aspect of his or her development, described the mentorship as informally initiated, and said that the mentorship occurred before the employee was a CEO (Rosser, 2005). Furthermore, of the 15 CEOs interviewed, 11 came from low socioeconomic backgrounds and perceived that they were able to break the barriers that could have prevented them from becoming CEOs with the help of their mentors. So despite low variance accounted for by gender in mentoring experience, past experience as a protégé may be a prerequisite to achieving the top levels of management. Consequently, although differential access to mentoring may not be a cause of the glass ceiling, in some instances, mentoring may help overcome these barriers.

Limitations and Future Research

Of particular importance is that only a small number of primary studies were available for estimating effect sizes associated with some of the hypotheses. As noted by Allen et al. (2004), mentoring is a relatively new area of research and meta-analytic studies are just beginning to emerge. In the analyses with fewer effect sizes, studies that include larger sample sizes may influence the correlation. Furthermore, our choice of analysis using a fixed- or random-effects model was also limited by the data. However, considering the interest in the role that gender plays in mentoring, the present meta-analysis remains a practical method for quantitatively summarizing the current state of research.

A noteworthy limitation is the measurement of access to mentoring. Specifically, research on mentoring typically asks participants if they have had an experience as a protégé or as a mentor. We were interested in examining whether protégés had access to mentors, but the wording of items used to assess protégé status in most studies does not necessarily address
this issue. For example, it is possible that an individual has opportunities to become a protégé but declines these opportunities. Furthermore, the number of mentoring relationships or opportunities may be relevant and provide greater variance to refine measurement of this relationship. Additional investigation of single mentoring episodes is important in understanding mentoring relationships, because men and women may differ in short-term relationships (e.g., Eagly & Crowley, 1986; Fletcher & Ragins, in press). In general, future research on access to mentoring might examine if mentoring opportunities are equal across gender and to what extent mentoring opportunities are appealing to protégés.

Likewise, the extent that differences in reported mentoring are a function of true differences in mentoring, reporting biases across gender, or other factors is unknown. Future research using item response theory can help address this question. For example, in a procedure similar to that used by Pellegrini and Scandura (2005), researchers may be able to determine if mentoring items function differently for males and females. As mentoring research continues to grow and mature, additional meta-analyses should be conducted.

**Conclusion**

The goal of the current meta-analysis was to review the present state of gender findings in the mentoring literature. The results suggest gender differences may be more prevalent among mentors than among protégés. Significant results were largely consistent with existing theory but small in magnitude. Future study may focus more on what drives the heterogeneity of the effect sizes by identifying and testing moderators to better understand conditions under which gender makes more or less of a difference.

**Appendix**

**Studies Included in the Meta-Analysis**


References


