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Career Benefits Associated With Mentoring for Protégés: A Meta-Analysis

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Meta-analysis was used to review and synthesize existing empirical research concerning the career benefits associated with mentoring for the protégé. Both objective (e.g., compensation) and subjective (e.g., career satisfaction) career outcomes were examined. Comparisons of mentored versus nonmentored groups were included, along with relationships between mentoring provided and outcomes. The findings were generally supportive of the benefits associated with mentoring, but effect sizes associated with objective outcomes were small. There was also some indication that the outcomes studied differed in the magnitude of their relationship with the type of mentoring provided (i.e., career or psychosocial).

The benefits of mentoring relationships have been publicized for several decades (Levinson, Darrow, Klein, Levinson, & McKee, 1978; Roche, 1979). However, not until the publication of Kram's (1985) seminal work on mentoring relationships at work has empirical research on the topic proliferated. Much of the extant research has examined the benefits of mentoring for protégés, finding that mentoring is related to important career outcomes such as salary level, promotion rate, and job satisfaction, among other outcomes (e.g., Chao, Walz, & Gardner, 1992; Fagenson, 1989; Scandura, 1992; Whitely, Dougherty, & Dreher, 1991). Noting the potential benefits of mentoring for protégés, individuals are often advised to seek out a mentor, and many organizations encourage mentoring relationships between organizational members (Burke & McKeen, 1989; Douglas & McCauley, 1999; Kram, 1985).

Given the important role ascribed to mentoring relationships regarding individual career development and its growing use in organizational settings as a career management tool, it seems important that researchers provide organizational leaders and practitioners with concrete information on the benefits of mentoring for protégés. Likewise, as the body of mentoring research continues to grow, it is imperative to critically and quantitatively summarize what we know about the benefits associated with mentoring for protégés in order to advance future theory and research on the topic. Outside of several qualitative reviews focusing on mentoring and gender issues (Noe, 1988b; Ragins, 1989, 1999), there have been few attempts to review the existing literature. As noted by Reichers and Schneider (1990) in their stage model describing the pattern by which new concepts are advanced, critical review and summarization of existing literature plays a key role in the evolution of concepts. For example, if we know that mentoring is more likely to relate to a specific set of outcomes than to others, we can refine mentoring theory accordingly. It seems likely that progressive theoretical development of the mentoring construct and its nomological net has been hampered by the lack of critical evaluation and assessment of existing research. We attempted to address this gap by conducting a meta-analytic review of the benefits of mentoring for protégés.

Definitional Issues and Overview of Mentoring Research

The term *mentor* dates back to Greek mythology and describes a "relationship between a younger adult and an older, more experienced adult [who] helps the younger individual learn to navigate the adult world and the world of work" (Kram, 1985, p. 2). The study of mentoring relationships is often traced to Levinson et al.'s (1978) research on the career development of adult men. In this work, Levinson and colleagues describe the relationship that develops with a mentor as one of the most important experiences in young adulthood. Mentors reportedly are not only a source of learning for protégés, but they also play a key role in the development of protégés' self-esteem and work identity. Other scholars such as Kanter (1977), Dalton, Thompson, and Price (1977), and Shapiro, Hazeltine, and Rowe (1978) also discussed the important role of relationships between younger and older adults in shaping

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individuals' career development, referring to such relationships as sponsor, patron, and godfather relationships.

Later work by Kram (1985) further outlined the important role of mentoring relationships in organizational settings. In this work Kram conducted an in-depth qualitative examination of mentor–protégé dyads and, among other things, outlined the functions served by mentors. Broadly speaking, two types of mentor functions were identified by Kram. The first is career-related support. This type of support enhances protégés' advancement in the organization and includes the mentor functions of sponsorship, exposure and visibility, coaching, protection, and challenging assignments. This mentor function is possible because of the senior person's position, experience, and organizational influence and serves the career-related ends of the junior person by helping him or her learn the ropes of organizational life, gain exposure, and obtain promotions. The second type of support is psychosocial. This type of support addresses interpersonal aspects of the relationship and refers to "those aspects of a relationship that enhance an individual's sense of competence, identity, and effectiveness in a professional role" (Kram, 1985, p. 32). Specific psychosocial functions include role modeling, acceptance and confirmation, counseling, and friendship.

Follow-up work has empirically supported Kram's (1985) two broad mentor functions, although the matter by which the functions are measured varies across studies. Specifically, Noe (1988a) developed a measure confirming that career-related and psychosocial support are two unique mentor functions. Subsequent studies have produced similar factor-analytic results (Ensher & Murphy, 1997; Tepper, Shaffer, & Tepper, 1996). Scandura and colleagues empirically identified three overarching mentor functions: career-related support, psychosocial support, and role modeling (Scandura, 1992; Scandura & Viator, 1994). Using a measure developed by Ragins and McFarlin (1990), several studies have examined mentor functions in a more fine-grained manner, separating career-related and psychosocial functions into specific types of support (e.g., exposure and visibility, sponsorship, counseling, friendship; Aryee & Chay, 1994; Ragins & Cotton, 1999). However, the extant theoretical and empirical research is clear that career and psychosocial functions serve as the primary distinct and reliable overarching operationalizations of mentoring provided. In accordance, our analyses focused on these two facets of mentoring. It is also important to note that other studies have used mentoring measures that combine psychosocial and career-related support (e.g., Bolino & Feldman, 2000; Dreher & Ash, 1990). Because of their small number ($n = 5$) and uncertain interpretation, these studies were excluded from the study.

Two types of studies characterize the literature examining the benefits of mentoring for protégés. The first includes studies that compare outcomes across protégés and nonprotégés (e.g., Chao et al., 1992; Fagenson, 1989). Other studies involve those that correlate mentor functions with protégé outcomes (e.g., Noe, 1988a; Ragins & Cotton, 1999). Both kinds of studies are included in the present meta-analysis.

Outcomes Associated With Mentoring Relationships for Protégés

Various protégé outcomes have been the subject of empirical inquiry. These outcomes can be classified into two broad categories. The first category includes objective career outcomes such as promotion and compensation (e.g., Dreher & Ash, 1990). The second category consists of subjective career outcomes. This includes more affective and less tangible signs of career success such as career satisfaction, career commitment, job satisfaction, and turnover intentions (e.g., Koberg, Boss, & Goodman, 1998; Noe, 1988a). Investigating both subjective and objective indicators of career success is important because career success is often operationalized in terms of both tangible, extrinsic outcomes and more subjective outcomes (e.g., Greenhaus, Parasuraman, & Wormley, 1990; Turban & Dougherty, 1994). Moreover, correlations between subjective and objective career success are typically low to moderate. For example, Judge, Boudreau, and Bretz (1994) found the correlation between subjective career success with pay success and promotion success was .19 and .15, respectively. Similarly, Seibert, Crant, and Kraimer (1999) found a correlation between career satisfaction and promotions of .20 and a correlation of .31 between career satisfaction and salary. In accordance, both objective and subjective career outcomes are included in the present study.

Hypotheses

As purposeful relationships designed to bring about individual change, growth, and development, mentoring theory suggests that mentorships should be inherently linked to career success (Kram, 1985; Levinson et al., 1978). Several specific processes help explain why mentoring relationships relate to protégé career success (Dreher & Ash, 1990). First, the mentorship serves as a mechanism for information exchange and knowledge acquisition (Mullen, 1994). Mentors provide access into social networks that include repositories of knowledge not available through formal communication channels (Dreher & Ash, 1990). Entry into these social networks also provides the protégé with the opportunity to display talent and skills to decision makers within the organization. Because career-related mentoring functions consist of behaviors that prepare the protégé for career advancement, it makes sense that those who have been mentored would achieve greater career success than those who have not been mentored. Moreover, it also follows that the greater the amount of career-related mentoring provided, the greater the outcome (i.e., compensation, job satisfaction) realized.

Another process that helps explain why mentoring relates to career success is social learning theory (Bandura, 1977). The psychosocial functions described by Kram (1985) are key to the social learning process. Social learning theory describes the modeling process that takes place as individuals vicariously learn through senior members of an organization (Manz & Sims, 1981). Mentors serve as the veteran models of behavior for their protégés and provide protégés with the rules that govern effective behavior in the organization (Bolton, 1980; Dreher & Ash, 1990; Zagumny, 1993). Through friendship, counseling, and acceptance the mentor also helps the protégé develop the sense of professional competence and self-esteem needed to achieve career success (Kram, 1985).

Hypothesis 1: Individuals who have been mentored will report greater career outcomes than will individuals who have not been mentored.

Hypothesis 2: Career-related mentoring will be positively related to career outcomes.

Hypothesis 3: Psychosocial mentoring will be positively related to career outcomes.

Most researchers who examine the relationship between mentoring provided and career outcomes assume both career and psychosocial forms of mentoring are similarly related to the outcomes of interest. However, it seems likely that career-related mentoring and psychosocial mentoring differ in the magnitude of their relationship to various outcomes. For example, the behaviors associated with career mentoring are highly focused on preparing protégés for advancement (e.g., exposure and visibility, sponsorship, challenging assignments). In accordance, it stands to reason that career mentoring may relate more highly to objective career outcomes than does psychosocial mentoring. Psychosocial mentoring (e.g., role modeling, acceptance and confirmation, counseling) centers on enhancing protégé self-esteem, confidence, and identity. Given the more relational focus of psychosocial mentoring, it may more highly relate to affective outcomes such as career and job satisfaction than does career mentoring. Thus, we pose the following hypotheses.

Hypothesis 4: Objective career outcomes will have a stronger relationship with career mentoring than with psychosocial mentoring.

Hypothesis 5: Subjective career outcomes will have a stronger relationship with psychosocial mentoring than with career mentoring.

Summary

Mentoring is frequently touted as beneficial, yet the literature lacks precise estimates of the effect sizes associated with mentoring or the extent that mentoring may be more highly related to some outcomes than others. We judged the accumulated literature on outcomes associated with mentoring substantial enough to warrant a meta-analytic review of findings. Indeed, a meta-analysis at this juncture can help identify research issues that need attention and perhaps better direct the field.

Method

Literature Search

We used several methods to identify studies. First, we conducted a computerized bibliographic search of PsycINFO and ABI/INFORM by using the terms *mentor*, *mentoring*, *protégé*, *mentorship*, and *career success*. We also conducted a manual search of journals that regularly publish mentoring research such as the *Academy of Management Journal* and *Journal of Vocational Behavior*. We reviewed the reference list of each article to identify additional citations that were not revealed by other search means. We also reviewed the *Society for Industrial and Organizational Psychology* and *Academy of Management* programs from the last 5 years to identify unpublished articles. Finally, we sent an e-mail to frequent contributors to the mentoring research literature requesting copies of in-press or unpublished articles.

Criteria for Inclusion

To be included in the analysis, the study had to meet the following criteria: The sample size must have been reported, the study had to have been conducted within an organizational setting (i.e., studies involving student relationships with mentors–advisors were excluded), and a Pearson correlation coefficient (or some other type of test statistic that could be converted into a correlation) between mentoring and the outcome variable must have been reported. A total of six studies were excluded because of insufficient information (e.g., only regression coefficients were reported). When possible, an attempt was made to contact a study author to obtain usable statistics. In cases in which a study involved a sample that was a subset of the same sample used in another study, the study with the largest sample was included in the analysis. In studies in which statistics were reported for different subgroups (e.g., men, women), each subgroup was weighted by sample size and combined. Five studies that used an overall measure of mentoring functions (i.e., a composite that combined career and psychosocial functions together) were excluded. Using the criteria listed, a total of 43 individual studies were included.

Coding of Studies

Depending on the results reported by each particular study, statistics coded included sample size, correlations, variable means and standard deviations, *t* tests, or *F* tests. To ensure accuracy, each study was coded independently by at least two of the study authors. The coders showed very high agreement (greater than 90%) in coding the statistics outlined above. Divergent recordings were discussed until agreement was reached.

Statistical Procedures

In conducting the meta-analysis, we employed what Hunter and Schmidt (1990) referred to as a "bare bones" meta-analysis. That is, no corrections are made for artifacts other than that due to sampling error. Although Hunter and Schmidt made it clear that they believe this form of meta-analysis is deficient, other researchers have demonstrated that corrections for artifacts can be inaccurate with a small number of studies, such as the case in the present meta-analysis (Spector & Levine, 1987). Given the small number of studies involved in many of the relationships estimated, we believed a more conservative approach was warranted. Results are tabled for all variables in which we had at least three samples.

We chose the correlation coefficient as our indicator of effect size. All reported study statistics were converted to correlation coefficients following coding by the raters. For each independent and dependent variable combination, statistics calculated included the mean unweighted observed correlation, the mean correlation weighted by sample size, and the weighted standard deviation of the observed correlations. In addition, we used a computer program based on procedures developed by Raju, Burke, Normand, and Langlois (1991) to calculate the standard deviation of effects corrected for sampling error, the asymptotic standard error of the estimated mean correlation and its associated 95% confidence interval, and the lower 90% credibility value (CV; Raju, & Fleer, 2003). A 95% confidence interval that does not contain zero indicates that one can be 95% sure that the mean sample-weighted correlation is indeed nonzero. The lower 90% CV indicates that 90% of the estimates of the true correlation lie above that value.

Finally, we conducted a file drawer analysis based on effect size using the formula provided by Hunter and Schmidt (1990, p. 513). The value represents the number of missing studies averaging null results that are needed to reduce the effect size to a specified level. In the present study we used a critical value of .01.

Variables Included in Analysis

Mentoring. In studies that compared mentored versus nonmentored individuals, we coded so that positive correlations indicated that being mentored was associated with a higher level of the outcome variable (e.g., higher salary). The majority of studies examined the relationship between

mentoring and the outcomes of interest. Several measures of mentoring functions exist (Noe, 1988a; Ragins & McFarlin, 1990; Scandura & Katerberg, 1992; Whitely et al., 1991). In most cases, authors examined career mentoring and/or psychosocial mentoring. In several instances, authors broke down the broad psychosocial and career-related mentoring factors into subfactors (e.g., Counseling, Exposure, Friendship, Protection) that were individually correlated with career outcomes. Because of the small number of these types of studies ($n = 3$) and because we were interested in the effects for the overall psychosocial and career factors, in these cases we combined the subfactors into their overall psychosocial or career factor by averaging the subfactor correlations with career outcomes. Likewise, because there were few studies examining role modeling separately with each of the outcomes ($n = 4$), we averaged role modeling with the higher order factor of psychosocial mentoring. In cases in which we averaged subfactor correlations, we used the statistical formula provided by Hunter and Schmidt (1990, p. 457) that takes into account intercorrelations among the subfactors.

Objective career success. We examined indicators of objective career success. *Compensation* was most commonly measured by asking participants to indicate total annual salary including all forms of compensation. Several studies examined *salary growth* (e.g., percentage change in salary during a specified time period as opposed to current income). *Promotions* were typically measured by asking participants to report number of promotions received.

Subjective career success. *Career satisfaction* is typically a multi-item self-report measure of how happy one is with one's career or how successful an individual believes he or she has been in his or her career to date. *Expectations for advancement* concerns the extent that one believes future advancement in the organization is likely. In some studies this construct was labeled *promotion opportunities* or *career plateau*. Correlations reported between mentoring and job satisfaction were included. In some cases ($n = 2$), researchers measured specific aspects of job satisfaction, such as intrinsic and extrinsic satisfaction. Given that it is not uncommon to aggregate various satisfaction facets (Spector, 1997), for these studies we averaged specific factors into an overall job satisfaction outcome measure using the formula provided by Hunter and Schmidt (1990). Studies examining career commitment and intent to stay with the organization were included. Given the recent interest in assessing perceptions of quality or satisfaction of the mentorship, we included studies examining the relationship between mentoring provided and satisfaction with the mentor.

Results

We stated in Hypothesis 1 that individuals who have been mentored will report greater career outcomes than those who have not been mentored. Table 1 shows the results for studies comparing outcomes for mentored versus nonmentored groups. Regarding objective career outcomes, compensation (weighted mean $r = .12$) and number of promotions (weighted mean $r = .31$) were higher among mentored than nonmentored individuals. The results indicated that mentored individuals were more satisfied with their career (weighted mean $r = .21$), more likely to believe that they would advance in their career (weighted mean $r = .26$), and more likely to be committed to their career (weighted mean $r = .15$) than were their nonmentored counterparts. In addition, mentored individuals were more satisfied with their jobs than were nonmentored individuals (weighted mean $r = .18$). The results also indicated mentored individuals had greater intentions to stay with their current organization than did nonmentored individuals (weighted mean $r = .06$); however, the 95% confidence interval associated with this mean included zero (−.05 to .17). Thus, with the exception of intentions to stay, Hypothesis 1 received full support.

We predicted in Hypothesis 2 that career-related mentoring would positively relate to career outcomes. Table 2 summarizes the results for studies examining the relationship between career mentoring and outcomes. In terms of objective career success, the results indicated greater career mentoring related to greater compensation (weighted mean $r = .08$), greater salary growth (weighted mean $r = .19$), and more promotions (weighted mean $r = .10$). Regarding the subjective outcomes, career mentoring was positively related to career satisfaction (weighted mean $r = .29$), job satisfaction (weighted mean $r = .30$), and satisfaction with the mentor (weighted mean $r = .37$). Hypothesis 2 was fully supported.

We suggested in Hypothesis 3 that psychosocial mentoring would positively relate to career outcomes. Table 3 shows the results for studies examining psychosocial mentoring and outcomes. Psychosocial mentoring related to compensation (weighted mean $r = .04$) and promotions (weighted mean $r = .06$). The

Table 1
Meta-Analysis of the Relationship Between Career Outcomes and Mentored Versus Nonmentored Groups

Dependent variable	k	N	M_r	M_{wr}	SD_{wr}	SD_ρ	SE_ρ	% variance sampling	95% CI	Lower 90% CV	Fail-safe k
Objective											
Compensation	7	2,260	0.12	0.12	0.09	0.07	0.03	38.45	.06, .19	.03	77
Promotions	3	561	0.30	0.31	0.04	0.00	0.02	100.00[a]	.27, .35	.31	90
Subjective											
Career satisfaction	7	2,602	0.23	0.21	0.10	0.08	0.04	25.31	.13, .28	.10	140
Expectations for advancement	3	691	0.27	0.26	0.03	0.00	0.02	100.00[a]	.23, .30	.26	75
Career commitment	4	2,207	0.17	0.15	0.06	0.04	0.03	44.02	.09, .22	.09	56
Job satisfaction	10	3,029	0.23	0.18	0.10	0.08	0.03	29.41	.12, .25	.08	170
Intention to stay	3	1,606	0.10	0.06	0.10	0.09	0.06	18.91	−.05, .17	−.06	15

Note. k = number of correlations; N = total sample size for studies combined; M_r = mean unweighted correlations; M_{wr} = sample-weighted mean correlations; SD_{wr} = standard deviation of the sampled-weighted correlations; SD_ρ = standard deviation of correlations corrected for sampling error; SE_ρ = asymptotic standard error of the mean correlations corrected for sampling error; % variance sampling = percentage of variance because of sampling error; CI = confidence interval; CV = credibility value; fail-safe k = the number of studies averaging null results that would be needed to reduce the sample-weighted mean r to .01.

[a] Sampling error accounted for more than 100% of the variance in the observed effect size.

Table 2
Meta-Analysis of the Relationship Between Career Outcomes and Career Mentoring

Dependent variable	*k*	*N*	M_r	M_{wr}	SD_{wr}	SD_ρ	SE_ρ	% variance sampling	95% CI	Lower 90% CV	Fail-safe *k*
Objective											
Compensation	9	7,454	0.12	0.08	0.06	0.05	0.02	34.64	.04, .11	.02	63
Salary growth	3	525	0.21	0.19	0.07	0.00	0.04	100.00[a]	.11, .27	.19	54
Promotions	11	7,570	0.16	0.10	0.07	0.06	0.02	25.64	.05, .14	.02	99
Subjective											
Career satisfaction	10	2,748	0.25	0.29	0.11	0.10	0.04	24.37	.22, .36	.17	280
Job satisfaction	7	1,569	0.24	0.30	0.07	0.03	0.03	82.37	.25, .35	.26	203
Satisfaction with mentor	6	1,282	0.43	0.37	0.15	0.14	0.06	13.82	.26, .49	.20	216

Note. *k* = number of correlations; *N* = total sample size for studies combined; M_r = mean unweighted correlations; M_{wr} = sample-weighted mean correlations; SD_{wr} = standard deviation of the sampled-weighted correlations; SD_ρ = standard deviation of correlations corrected for sampling error; SE_ρ = asymptotic standard error of the mean correlations corrected for sampling error; % variance sampling = percentage of variance because of sampling error; CI = confidence interval; CV = credibility value; fail-safe *k* = the number of studies averaging null results that would be needed to reduce the sample-weighted mean *r* to .01.
[a] Sampling error accounted for more than 100% of the variance in the observed effect size.

results also indicated greater psychosocial mentoring was associated with greater career satisfaction (weighted mean $r = .25$), greater job satisfaction (weighted mean $r = .20$), and stronger intentions to stay with the company (weighted mean $r = .09$). The variable most highly related to psychosocial mentoring was satisfaction with the mentor (weighted mean $r = .62$). Hypothesis 3 was supported.

We suggested in Hypothesis 4 that objective career outcomes would have a stronger relationship with career mentoring than with psychosocial mentoring. As shown in Tables 2 and 3, the effect sizes associated with compensation and promotion with career mentoring were somewhat higher than those associated with compensation and promotion with psychosocial mentoring. There was little overlap in the confidence intervals associated with compensation and promotion. It should be noted that these particular estimates were heavily influenced by one large sample study (Tharenou, 2000). After removing the Tharenou (2000) study, the weighted mean *r* for the relationship between career mentoring and compensation was .13 and the relationship between career mentoring and promotions was .19. The weighted mean *r* for the relationship between psychosocial mentoring and compensation was .01 and for the relationship between psychosocial mentoring and promotions was .07, suggesting a much larger difference. Thus, there was somewhat mixed support for Hypothesis 4.

We predicted in Hypothesis 5 that subjective career outcomes would have a stronger relationship with psychosocial mentoring than with career mentoring. As shown in Tables 2 and 3, career mentoring and psychosocial mentoring were similarly related to career satisfaction. Job satisfaction was somewhat more highly related to career mentoring than to psychosocial mentoring as evidenced by the limited overlap in confidence intervals. On the other hand, satisfaction with the mentor was considerably more highly related to psychosocial mentoring than to career mentoring, with no overlap in confidence intervals. Thus, there is minimal evidence that subjective career outcomes more highly relate to psychosocial mentoring than to career mentoring. However, psychosocial mentoring does clearly relate more highly to satisfaction with the mentoring relationship than does career mentoring. In sum, there was mixed support for Hypotheses 5.

The results of the file drawer analyses yielded values ranging from a low of 15 to a high of 366. For example, it would take 77 studies averaging null results to reduce the effect size between

Table 3
Meta-Analysis of the Relationship Between Career Outcomes and Psychosocial Mentoring

Dependent variable	*k*	*N*	M_r	M_{wr}	SD_{wr}	SD_ρ	SE_ρ	% variance sampling	95% CI	Lower 90% CV	Fail-safe *k*
Objective											
Compensation	5	6,022	0.02	0.04	0.03	0.01	0.01	84.79	.01, .06	.02	15
Promotions	6	5,955	0.03	0.06	0.04	0.02	0.02	74.75	.03, .09	.04	30
Subjective											
Career satisfaction	4	582	0.22	0.25	0.15	0.12	0.07	28.10	.10, .39	.09	96
Job satisfaction	5	786	0.22	0.20	0.08	0.00	0.03	100.00	.14, .26	.20	95
Intention to stay	3	704	0.11	0.09	0.07	0.03	0.04	80.06	.01, .17	.05	24
Satisfaction with mentor	6	1,282	0.63	0.62	0.12	0.11	0.05	11.90	.52, .72	.48	366

Note. *k* = number of correlations; *N* = total sample size for studies combined; M_r = mean unweighted correlations; M_{wr} = sample-weighted mean correlations; SD_{wr} = standard deviation of the sampled-weighted correlations; SD_ρ = standard deviation of correlations corrected for sampling error; SE_ρ = asymptotic standard error of the mean correlations corrected for sampling error; % variance sampling = percentage of variance because of sampling error; CI = confidence interval; CV = credibility value; fail-safe *k* = the number of studies averaging null results that would be needed to reduce the sample-weighted mean *r* to .01.

mentoring and promotions from .12 to .01 (see Table 1). It should be noted that the values produced by the Hunter and Schmidt (1990) formula we used are usually much smaller than the number of studies needed to reduce the combined probability value to $p = .05$, as described in the procedures developed by Rosenthal (1991). In some cases, initially small effect sizes coupled with a small number of primary studies resulted in a small number of additional studies averaging null results that would be needed to reduce the effect size to .01 (e.g., mentoring and intentions to stay). The reliability of the results pertaining to those relationships should be viewed cautiously.

Discussion

The most consistent claim made in the mentoring literature is that those who are mentored accrue substantial benefits. Indeed, introductions of mentoring studies are frequently prefaced with this point. Moreover, the existence of a formal mentoring program is now being used as criteria against which the "Best Companies to Work For" are judged (Branch, 1999). Our purpose in conducting the present study was to summarize existing data concerning the relationship between mentoring and benefits for protégés. The results are generally supportive of claims associated with the benefits of mentoring but also reveal that the effect size associated with objective career outcomes is small. In addition, the findings suggest that the type of mentoring provided may make an important difference in benefits realized.

As we hypothesized, the results provide some evidence that objective career success indicators, such as compensation and promotion, are more highly related to career mentoring than to psychosocial mentoring. The results are not surprising when considering the different behaviors associated with career versus psychosocial mentoring. Mentoring behaviors, such as sponsorship, exposure and visibility, coaching, and protection, are more directly related to enhancement of the task-related aspects of work that facilitate objective career success. It was also noted that the effect sizes for the objective career indicators were stronger when comparing mentored versus nonmentored groups than when examining the relationship between mentoring functions provided and objective career benefits. Although caution must be observed given the small number of studies involved, it may be that the degree of mentoring provided does not play as large of a role in objective career success as does the presence of a mentor. Alternatively, it may be that current operationalizations of mentoring provided do not adequately capture aspects of the mentoring process that impact objective career success. For example, recent qualitative research on protégés' most positive mentoring experiences found that mentoring behaviors such as the provision of networking opportunities outside the organization, intellectually challenging assignments that lead to breadth of skill development rather than increased specialization, help in developing lateral and cross-functional relationships in addition to hierarchical relationships, and the provision of personalized feedback and career strategy advice were particularly important for protégés (Eby & McManus, 2002). Existing measures of mentoring functions typically do not capture all of these types of mentoring behaviors. It also seems possible that specific subfactors of the two overarching mentoring functions are more or less related to objective career success and that measuring mentoring functions at the higher order level dilutes the impact on career outcomes. For example, in one study that used separate measures of the five subfactors associated with career mentoring and correlated each with compensation (Ragins & Cotton, 1999), correlations ranged from −.01 for coaching to .12 for exposure. In future research efforts, it may be beneficial to conduct more studies that assess specific mentoring subfactors in order to increase our understanding of the unique aspects of mentoring that relate to career benefits.

The results also indicate that behaviors associated with psychosocial mentoring, such as role modeling, acceptance and confirmation, counseling, and friendship, were more highly related to satisfaction with the mentor than was career mentoring. According to Kram (1985), the psychosocial mentoring functions represent a deeper, more intense aspect of mentoring relationships and "psychosocial functions depend more on the quality of the relationship . . . [than career functions]" (p. 32). Further, the fulfillment of psychosocial functions means that the mentoring relationship has evolved into a true mentorship and that an emotional bond has developed between the mentor and the protégé (Kram, 1985). Social psychologists note that relational depth and intimacy are important markers of satisfying dyadic relationships (Hinde, 1981). Thus, it is not surprising that the provision of psychosocial mentoring is strongly associated with protégé satisfaction with the mentor. This suggests that an important theoretical bridge may be social–psychological research on other types of close relationships such as friendships and marriages. This research may help mentoring researchers more fully articulate the interpersonal processes (e.g., liking, reciprocity, trust) linking mentoring to protégé outcomes.

What was surprising was that career and psychosocial mentoring had comparable relationships with job and career satisfaction. We had speculated that these more subjective forms of career success would more highly relate to psychosocial mentoring than to career mentoring; however, the career-related aspects of mentoring appear just as important to generating positive attitudes regarding one's job and career. One possible reason for this finding is that career-related mentoring likely provides informational and instrumental social support (Allen, McManus, & Russell, 1999; McManus & Russell, 1997). Such support may help individuals feel more confident in their career decisions and enhance their career-related efficacy through coaching and challenging job assignments, which in turn lead to feelings of greater career satisfaction. In addition, because an important aspect of career-related mentoring involves providing challenging assignments, it may serve as a form of job enrichment, which in turn enhances protégé job satisfaction (Hackman & Oldham, 1976).

There appear to be several fairly robust relationships to mentoring. Specifically, the weighted effect sizes for job satisfaction ranged from .18 to .30 and for career satisfaction ranged from .21 to .29. Indeed, the effect sizes associated with job satisfaction rival those typically found for well-established correlates of job satisfaction, such as age and role variables (Spector, 1997). In addition, the mentored versus nonmentored results revealed strong effects for career specific variables such as career commitment, expectations for advancement, and career satisfaction. These results suggest that the most consistent benefits of mentoring may be the impact on affective reactions to the workplace and positive psychological feelings regarding one's career. This may not be too surprising when considering that objective outcomes such as pro-

motion and salary are more reliant on outside influences than are processes internal to the individual, such as career and job attitudes. That is, salary increases and promotions can also be contingent on the financial solvency and hierarchical structure of the organization in which the employee works. In addition, it may take a greater amount of time for objective benefits to accrue than for affective reactions such as job satisfaction to be impacted by a mentoring experience.

Theoretical Implications

These findings have important implications for mentoring theory. As discussed by Kram (1985) and others, mentoring is purported to influence career progression, as well as enhance a protégé's sense of professional identity and self-competence. The accumulated empirical evidence indicates that focusing on mentoring primarily as a means to achieve objective career success may not be warranted. More specifically, our review illustrates that mentoring is more strongly related to subjective indicators of career success, such as career and job satisfaction, than it is to objective career success indicators. Several specific suggestions for future research and theory building emerge from these findings. First, a refinement of mentoring theory that focuses more on how mentoring relationships influence subjective indicators of career success and less on the role of mentoring in understanding objective career success may be necessary. Second, empirical research is needed that examines the link between mentoring and professional identity and self-competence because this is discussed in mentoring theory but has not been the subject of much research attention. Finally, given that some support was found for differential relationships between career-related and psychosocial mentoring and career outcomes, additional theoretical work is needed that articulates the processes by which mentoring influences such outcomes. For example, we found that career-related mentoring was more highly related to objective career outcomes than was psychosocial mentoring. However, existing mentoring theory does not discuss the specific behavioral and psychological processes that may explain this pattern of effects. In contrast, our review indicates that career-related and psychosocial mentoring are both related to career and job satisfaction to a similar extent. Yet again, existing mentoring theory does not provide an explanation for why this may be the case.

The results reveal a number of other opportunities for future research. As mentoring research accumulates, we need to make more fine-grained distinctions regarding the conditions under which protégés benefit most from mentorships. Although we thought it premature to conduct moderator analyses given the small number of cases for many of the studied variables, such analyses seem an important future research endeavor. This is especially true given the results of the analyses estimating the percentage of observed variance because of sampling error suggests that a number of moderated relationships may indeed exist. For example, the type of mentorship (i.e., formal vs. informal) is a likely candidate for consideration as a moderating factor. The few studies examining formal versus informal mentorships suggests that the two may not be equally beneficial (e.g., Chao et al., 1992; Ragins & Cotton, 1999). Likewise, research examining race and gender diversity within mentorships suggest that the dyadic composition of the mentorship (e.g., male–male vs. male–female) may impact the benefits realized by protégés (e.g., Dreher & Cox, 1996; Ragins, 1999).

For several relationships, it was determined that the estimates of sampling error variance were greater than 100% (i.e., estimates of "true" variance were negative). Although this would seem to indicate that moderators do not exist for these relationships, according to Hunter and Schmidt (1990), negative true variance estimates more accurately mean that second-order sampling error is operating for these distributions. Essentially, the estimates of sampling error variance in the current study include not only estimates of variance because of within-study artifacts but also include sampling error resulting from effect size variance across studies (Hunter & Schmidt, 1990). This is particularly relevant for these relationships because the small number of studies in the meta-analysis results in greater sampling error variance in the effect sizes. With a large degree of sampling error variance present, it becomes more difficult to estimate how much "true" variance actually exists for each calculated effect size. As noted by Hunter and Schmidt, this phenomenon is related to the issue of statistical power, with the implication being that in the present study, there likely is not enough power for these relationships to determine whether moderators actually exist (irrespective of the finding that greater than 100% variance is due to sampling error).

The nature of most research designs used in mentoring research also creates reason for debate regarding the causal ordering of variables. Few organizational studies have been designed such that mentoring data are collected prior to that of outcome data (see Wayne, Liden, Kraimer, & Graf, 1999, for an exception). Moreover, outside of Kram's (1985) theory concerning the stages of the mentoring relationships, we have little guidance concerning the appropriate time lag for capturing mentoring effects. We echo the call of many mentoring researchers regarding the need for long-term longitudinal research designs to better address the exact nature of mentoring benefits. For example, although mentoring may result in greater job satisfaction, it may also be that satisfied employees are more apt to put themselves in a position to benefit from mentoring.

As researchers have turned their attention to investigations of within-mentorship differences, such as the effectiveness of formal versus informal mentorships (e.g., Ragins & Cotton, 1999), few studies have continued to report effects associated with mentored versus nonmentored groups. For example, we were able to locate only three studies that included usable data concerning promotions between mentored and nonmentored individuals. Studies that compared mentored versus nonmentored, as well as the degree of mentoring provided, are necessary because there are weaknesses inherent in either approach alone. As noted by Ragins, Cotton, and Miller (2000), the simple presence of a mentor may not automatically relate to positive outcomes, because the outcomes may depend on the quality of the mentorship. There are also interpretation issues associated with the assessment of mentoring functions. When reports of mentor functions provided are obtained, the instructions given to participants vary greatly. Some instruct participants to think about their current or most recent mentoring relationship (e.g., Chao et al., 1992; Scandura & Williams, 2001), some instruct participants to base their reports on the most influential mentor (e.g., Murphy & Ensher, 2001), and others ask protégés to reflect on total mentoring received, not limiting responses to a single mentoring relationship (e.g., Turban & Dough-

erty, 1994). It seems likely that the instructions given concerning how to respond in multiple mentorship cases have some impact on the results. For example, an individual may have had a productive mentoring relationship in the past but one of poor quality more recently. In such a scenario, the correlations between mentoring provided and career outcomes may not be an accurate representation of the overall impact mentoring has had on the individual's career. Another concern is that studies often ignore the stage of mentorship. This is important in that Chao (1997) found that protégés in the initiation stage of the mentorship reported receiving less career and psychosocial mentoring than did protégés in the other three stages of mentoring. Although we did not have a large enough number of studies to do subgroup analyses of these issues, these topics raise additional considerations for future research efforts.

Through the course of our literature review, we detected several promising career-related variables that have been linked to mentoring but that have been examined in only a limited number of studies and thus could not be included in our analyses. For example, although existing studies suggest a positive relationship, we were unable to examine effect sizes between mentoring and socialization. Chao et al. (1992) examined socialization outcomes for mentored versus nonmentored as well as the relationship between mentoring functions and socialization. Likewise, Feldman, Folks, and Turnley (1999) found significant relationships between several aspects of socialization and mentoring; however, they used a composite measure of mentoring so that their results could not be combined with Chao et al. Finally, Allen et al. (1999) also found a positive relationship between mentoring and socialization; however, their study was conducted in an academic setting so it was excluded from the present analyses.

Another important area for future study is to examine the incremental value of mentoring on career success. Little research has examined the impact of mentoring on career success beyond other factors associated with career success. The studies that have controlled for protégé factors such as human capital and motivation have produced mixed results (Green & Bauer, 1995; Wayne et al., 1999). This line of research seems all the more important given the small effect sizes associated with mentoring revealed in the present study.

Limitations

As an area of study, mentoring is at a relatively young stage compared with many other areas within the organizational behavior literature. Consequently, many of our estimated relationships involve a small number of studies. Although we are not aware of any firm guidelines concerning the number of studies needed to warrant conducting a meta-analysis, it should be recognized that second-order sampling error poses a threat to the validity of our reported results (Hunter & Schmidt, 1990). Nevertheless, given the claims commonly made in the mentoring literature and growing practical interest, we believe a quantitative summary of mentoring benefits for protégés is a welcome contribution to the literature at this juncture. As stated by Schmidt, Hunter, Pearlman, and Hirsh (1985),

> Even with small numbers of studies and small *N*'s, meta-analysis is still the optimal method for integrating findings across studies. In the absence of such interim meta-analyses, psychologists would likely base judgments on the findings of individual studies or nonquantitative (i.e., narrative reviews of the literature—both of which are much more likely to lead to error). Thus, such meta-analyses are, in fact, very desirable (p. 749).

It has been taken as a universal given that mentoring results in substantial rewards for protégés. This study provides a more reliable and needed understanding of the strength of these assumed relationships.

Conclusion

It was hoped that by aggregating the results of mentoring studies a clearer picture of the benefits of mentoring would emerge. For the most part, the results of the present analyses shed positive light on the benefits associated with mentoring. This is especially encouraging given that we used a conservative approach to meta-analyzing the research studies that did not correct for various measurement errors. Moreover, the results reveal interesting differences in the relationship between the two types of mentoring behavior and the various outcomes investigated. Still, given the small number of correlations for many of the outcome variables studied, much research remains to be done before firmer conclusions can be reached. Pursuing the avenues of research outlined above should enhance our theoretical and practical understanding of these important work relationships.

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