3

Mentoring and Career Outcomes

Conceptual and Methodological Issues in an Emerging Literature

Thomas W. Dougherty

George F. Dreher

ver the approximately 20-year span of research on mentoring in the workplace, one of the key research questions pertains to the value of mentors and mentoring for the career success of protégés. Researchers in the early 1990s began to publish work that investigated (along with other issues) whether mentoring received by protégés was related to their objective career progress as measured by variables such as promotion rates and compensation (e.g., Dreher & Ash, 1990; Scandura, 1992; Turban & Dougherty, 1994; Whitely, Dougherty, & Dreher, 1991). Scholars soon acknowledged that the construct of career success includes more than objective outcomes, and they began to include subjective outcomes of mentoring, including perceived career success, career expectations, organizational justice, job involvement, job satisfaction, organizational commitment, intention to stay, job burnout, and organizational power, among other outcomes (Fagan & Walter, 1982; Fagenson, 1988; Koberg, Boss, & Goodman, 1998). In this chapter, we provide an overview of a variety of issues regarding the relationships of mentoring to the receipt of protégé career outcomes. First, we

AUTHORS' NOTE: We thank Jamie Cheung and James Wilbanks for their assistance in preparing this chapter.

provide an overview of empirical research on this topic, including key characteristics of past studies. Next, we discuss definitional issues in mentoring research and implications for future studies, followed by some additional conceptual issues related to broadening the criteria used in studies of mentoring and career outcomes. We then highlight some research design issues that are particularly relevant for the study of mentoring and protégé career outcomes, including internal validity, method variance, and external validity issues. Finally, we turn to discussion of the need for a better understanding of intermediate linkages—or specific paths—by which mentors can influence the career trajectories of protégés, followed by some concluding comments. We now turn to an overview of key findings of the studies that constitute this literature.

Mentoring and Career Outcomes: Where We Have Been

Empirical Research Results on Mentoring and Career Outcomes

Within the past 5 years, three major mentoring reviews relevant to this chapter have been published. These include two recent monographs on mentoring by Noe, Greenberger, and Wang (2002) and Wanberg, Welsh, and Hezlett (2003) and a meta-analysis focused specifically on research examining mentoring's career benefits for protégés by Allen, Eby, Poteet, Lentz, and Lima (2004). We now provide an overview of findings and conclusions relevant to the focus of this chapter.

Noe et al. (2002) delineated both the proximal (more immediate) and distal (longer-term) outcomes of mentoring for protégés. They categorized *proximal outcomes* as including the various mentoring functions received by protégés, including psychosocial, career-related, and role-modeling functions. They suggested a number of *distal outcomes* for protégés, such as promotions, compensation, work alienation, job involvement, and perceived career success. Noe et al. discussed a variety of issues and suggested new directions in the study of mentoring. They reported that their reading of the literature led them to conclude that mentored individuals (versus nonmentored) report more career and job satisfaction, promotions, higher incomes, and lower turnover intentions and work alienation. However, their monograph did not systematically or in a detailed fashion review the literature focusing on mentoring and protégé career outcomes.

Wanberg and colleagues (2003) provided a lengthy and comprehensive review of the workplace mentoring literature, with a special review and discussion of formal mentoring. Their review included a table summarizing key characteristics of studies of both protégé and mentor outcomes. These characteristics included focus, methodology, type of mentoring examined, source of data, and sample size—reporting that most studies used cross-sectional surveys, relied upon self-reports, and focused on protégé (versus mentor) outcomes. Sample sizes ranged from 22 to 3,321, with most sample sizes over 100. Wanberg et al. noted that it was difficult to code studies on the formal/informal dimension, in that many authors did not

explicitly make this distinction. They did not indicate any explicit criteria for inclusion of studies generating their summary statistics on these studies examining outcomes. Moreover, they did not identify the individual studies included in these summary statistics or provide a review of these studies, pointing out the difficulty of such a narrative review. They did summarize the results of the (early version of the) Allen et al. (2004) meta-analysis in reporting an overall synthesis of protégé outcome results across studies. In addition, Wanberg et al. (2003) cited some research issues and priorities, including differentiating formal from informal mentoring, using control variables and longitudinal studies to confirm the "incremental" value of mentoring beyond protégé characteristics, examining the mechanisms through which mentoring leads to career success (offering a detailed model for formal mentoring in their monograph), examining work performance-related outcomes, and examining multiple mentors and negative mentoring experiences. We take up a number of these issues in the present chapter.

In regard to the meta-analytic review by Allen et al. (2004), they provided some explicit criteria for inclusion of studies in their analysis and a systematic review and synthesis of research on protégé outcomes from workplace mentoring. Therefore, it makes sense in the present chapter to focus attention on their findings about mentoring and protégé outcomes as a springboard for our discussion of conceptual and methodological issues. We also provide a study-by-study overview of research characteristics and results of their 43 studies, displayed in Table 3.1. We chose to add 4 more recently published studies of mentoring and protégé outcomes to Table 3.1 (Gonzalez-Figueroa & Young, 2005; Kirchmeyer, 2005; Payne & Huffman, 2005; Scandura & Williams, 2004), which fit the Allen et al. (2004) criteria for inclusion in analyses.

Allen et al. (2004) included both objective (e.g., compensation) and subjective (e.g., career satisfaction) outcomes and studies examining both "amount of mentoring provided" and studies configured as comparisons of "mentored versus nonmentored" individuals. For inclusion in the meta-analysis, a study had to have reported the sample size, been conducted in an organizational setting, collected separate measures of major mentoring functions (e.g., career, psychosocial), and reported a relationship(s) between mentoring and an outcome variable using a correlation or comparable index. In these studies, Allen and colleagues observed that the primary indicators of *objective career success* were total annual compensation, salary growth (e.g., percentage change over some time period), and self-reported promotions. The primary indicants of *subjective career success* were career satisfaction, advancement expectations, career commitment, job satisfaction, and intention to stay with one's organization.

Allen and colleagues' (2004) results indicated, first, that individuals who have been mentored receive greater career outcomes than those who have not, including both objective and subjective outcomes (with the exception of intention to stay). Second, results indicated that career-related mentoring was positively related to career outcomes, including compensation, salary growth, promotions, career satisfaction, job satisfaction, and satisfaction with the mentor. Third, the analyses indicated that psychosocial mentoring was also related to career outcomes (as hypothesized).

(Text continues on page 73)

Characteristics of (Expanded Set of) Studies Included in Allen et al. (2004) Meta-Analysis Table 3.1

					;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	226		
Author/ Journal/Year	Sample Characteristics	Measure of Mentoring Functions	Definition of Mentoring?	Data Source	Outcomes	Moderators/ Mediators	Methodology	Key Findings
Aryee & Chay British Journal of Management (1994)	164 professional and managerial employees in public and private sector organizations in Singapore	Ragins & McFarlin's 15 items for career functions	Yes	Protégé self-report	Career satisfaction, organizational commitment, career commitment, & job involvement	N/A	Cross-sectional survey	Mentored individuals were significantly higher on all outcomes versus nonmentored.
Aryee, Wyatt, & Stone Journal of Management Studies (1996)	432 professional and managerial midcareer employees in local and multinational organizations in Hong Kong	Dreher & Ash's four items for career functions	Yes	Protégé self-report	Career satisfaction, number of promotions, & salary	Ingratiation as independent variable and moderator	Cross-sectional survey	Mentoring and ingratiation was unrelated to annual salary. Mentoring was related to number of promotions and career satisfaction, but ingratiation and their interaction terms were not.
Barker, Monks, & Buckley British Accounting Review (1999)	287 professional employees in two of the Big Five accountancy firms in Ireland	Scandura & Viator's 15 items for career development, social support, & role-modeling functions	Yes	Protégé self-report	Turnover intentions	Gender as moderator	Survey	U-shaped relationship between protégé grade and mentoring. Male mentors provided a stronger role modeling function to male protégés but not between female mentors and protégés. Career development and social support were related to turnover intentions.

Author/ Journal/Year	Sample Characteristics	Measure of Mentoring Functions	Definition of Mentoring?	Data Source	Outcomes	Moderators/ Mediators	Methodology	Key Findings
Baugh, Lankau, & Scandura Journal of Vocational Behavior (1996)	176 female and 99 male managers and executives in the United States	Respondents reported whether they had mentors or not	, ke	Protégé self-report	Organizational commitment, job satisfaction, career expectation, role conflict, role ambiguity, & perceived employment alternatives	Gender as moderator	Survey survey	Male nonprotégés showed lower organizational commitment, job satisfaction, and career expectations and increased role ambiguity relative to male protégés and female protégés and nonprotégés. Female nonprotégés reported lower career expectations and lower perceived employment alternatives than female protégés and male
Chao, Walz, & Gardner <i>Personnel</i> <i>Psychology</i> (1992)	212 informal protégés, 53 formal protégés, & 284 nonmentored professional and managerial employees	Noe's 21 items for psychosocial and career-related functions	, ke	Protégé self-report	Job satisfaction, organizational socialization, & salary	∀ ≥	Survey survey	Informal protégés reported more career-related support. Mentored protégés reported higher level of job satisfaction, organizational socialization, & salary than nonmentored individuals. Formal and informal protégés did not report different outcomes. Career-related mentoring had stronger effect on the outcomes than psychosocial mentoring.

Table 3.1 (Continued)

Author/ Journal/Year	Sample	Measure of Mentoring Functions	Definition of	Data Source	Outromes	Moderators/	Methodology	Kav Eindinas
Colarelli & Bishop Group & Organization Studies (1990)	426 professional and managerial employees	Respondents reported whether they had mentors or not	Yes	Protégé self-report	Career	N/A	Cross-sectional survey	Mentoring was positively related to career commitment.
Corzine, Buntzman, & Busch Journal of Social Behavior and Personality (1994)	208 bank officers	Respondents reported whether they had mentors or not	, ke	Protégé self-report	Job satisfaction, salary, & career plateau	Gender & downsizing as moderators	Cross-sectional survey	Mentored individuals reported higher level of job satisfaction and were less likely to perceive reaching a career plateau. However, salary was not related to mentoring. No interaction effects were found between gender and mentoring, and downsizing and mentoring.
Cox & Nkomo Work & Occupations (1991)	729 MBA alumni	Respondents rated the extent to which their career had been aided by a mentor(s)	Yes	Protégé self-report	Job involvement, career satisfaction, & hierarchical level	Gender & race as moderators	Cross-sectional survey	Black MBAs had less access to mentors. No significant differences between males and females on levels of mentoring received. No interaction effects found between gender and race on mentoring received.

Author/ Journal/Year	Sample Characteristics	Measure of Mentoring Functions	Definition of Mentoring?	Data Source	Outcomes	Moderators/ Mediators	Methodology	Key Findings
Day & Allen Journal of Vocational Behavior (2004)	125 supervisory, administrative, managerial, & professional employees in a municipality	Noe's 21 items for psychosocial and career-related functions	Yes	Protégé self-report	Subjective career success, performance effectiveness, salary, & promotion	Career motivation & career self-efficacy as mediators	Cross-sectional survey	Mentored individuals reported higher levels of career self-efficacy. Psychosocial and career mentoring were related to career motivation. Career mentoring was related to career self-efficacy. but psychosocial mentoring was not. Career motivation fully mediated the relationship between career mentoring and performance effectiveness.
Dreher & Chargois Journal of Vocational Behavior (1998)	127 African American managerial and professional employees	Respondents reported whether they had mentors or not	Yes	Protégé self-report	Total annual compensation	NA	Cross-sectional survey	Individuals with White male mentors reported higher levels of compensation.
Dreher & Cox Journal of Applied Psychology (1996)	1,018 MBA alumni	Respondents reported whether they had mentors or not	, Kes	Protégé self-report	Total annual compensation	Gender & race as moderators	Cross-sectional survey	Blacks and Hispanics were less likely than Whites to have White male mentors. Men were more likely than women to have White male mentors. Protégés with White male mentors reported higher compensation than protégés with other types of mentors.

Table 3.1 (Continued)

Author/ Journal/Year	Sample Characteristics	Measure of Mentoring Functions	Definition of Mentoring?	Data Source	Outcomes	Moderators/ Mediators	Methodology	Key Findings
Ensher & Murphy Journal of Vocational Behavior (1997)	104 interns (high school seniors)	Noe's 22 items for career-related and psychosocial functions	Yes	Protégé self-report	Satisfaction with mentor and likelihood of continuing relationship	Gender & race as moderators	Survey survey	Protégés assigned to same-race mentors reported more instrumental support. Perceived similarity was related to protégés' liking and satisfaction and contact frequency with mentors but not to racial similarity. Liking, perceived similarity, and mentoring were related to protégés' satisfaction with mentors. Career mentoring and liking were related to likelihood of continuing relationship.
Ensher, Thomas, & Murphy Journal of Business and Psychology (2001)	142 hourly, nonmanagerial, & managerial employees	Scandura & Katerberg's 18 items for vocational from multiple organizations	Yes support, role- modeling, & psychosocial support	Protégé self-report	Job satisfaction & perceived career success	N. A.	Cross-sectional survey	Role-modeling, reciprocity, and vocational support were related to protégés' satisfaction with mentors. Traditional mentors were reported to provide more vocational support, role-modeling, and

	- - -	-	_
Key Findings	mentoring satisfaction than peer mentors. Vocational support was related to job satisfaction and perceived career success. Protégés with traditional mentors reported higher levels of job satisfaction than protégés with nontraditional mentors.	Mentored individuals reported higher levels of all outcome variables except security.	Older protégés reported receiving less career mentoring but higher quality mentoring and more mutual learning.Older mentors were perceived to provide the
Methodology		Cross-sectional survey	Cross-sectional survey
Moderators/ Mediators		Protégé's gender & organizational level as moderators	Mentors' age as a moderator
Outcomes		Career mobility/ opportunity, recognition, satisfaction, security, & promotion	Mentorship quality, & mutual learning
Data Source		Protégé self-report	Protégé self-report
Definition of Mentoring?		Yes	Kes
Measure of Mentoring Functions		Two items measuring mentors' helpfulness and organizational influence	Scandura's 15 items for career development, social support, and role-modeling
Sample Characteristics		246 employees in health care industry	88 professional employees in a university
Author/ Journal/Year		Fagenson Journal of Organizational Behavior (1989)	Finkelstein, Allen, & Rhoton Group & Organization Management (2003)

Table 3.1 (Continued)

Author/ Journal/Year	Sample Characteristics	Measure of Mentoring Functions	Definition of Mentoring?	Data Source	Outcomes	Moderators/ Mediators	Methodology	Key Findings
								least mentoring. Protégés perceived similar-aged and younger mentors to be less competent in mentoring.
Gaskill & Sibley Clothing and Textiles Research Journal (1990)	205 female executives in middle- and upper-level retail positions	Respondents indicated the extent to which their mentors fulfilled Kram's (1985) five career and four psychological functions	Ke Ke	Protégé self-report	Job satisfaction, job motivation, & promotion	₹ 2	Cross-sectional survey	Mentored midlevel executives reported more promotions than nonmentored executives. Upper-level mentored executives perceived higher levels of job motivation than nonmentored executives. Mentored executives placed more importance on mentoring relationships as a means of career advancement than did nonmentored executives.
Godshalk & Sosik Group & Organization Management (2000)	199 mentoring dyads— corporate employees in multiple firms	Noe's 20 items for career- related and psychosocial functions	Kes	Protégé self-report & mentor self-report	Quality of mentoring relationship (i.e., mentoring functions and mentoring effectiveness)	₹ Z	Cross-sectional survey	Protégés reported lowest quality of mentoring relationships with mentors who overestimated their transformational leadership behavior. Highest quality of

Table 3.1 (Continued)

Author/ Journal/Year	Sample Characteristics	Measure of Mentoring Functions	Definition of Mentoring?	Data Source	Outcomes	Moderators/ Mediators	Methodology	Key Findings
Johnson, Lall, Holmes, Huwe, & Nordlund Military Medicine (2001)	576 midshipmen	15 items developed for career-related and psychosocial functions	, Kes	Protégé self-report	Assessment of mentor relationship	∀.N	Cross-sectional survey	Psychosocial functions were more strongly related to quality of mentor relationship than were career functions.
Kirchmeyer Journal of Management (1998)	292 midcareer managers	Respondents indicated whether they had a mentor and the extent to which their peer network support and support and support was helpful to their careers	Xes	Protégé self-report	Career progression (i.e., income & organizational levels) & perceived career success	Gender as moderator	Cross-sectional survey	Having a mentor or peer network support had stronger effects on men's career progression. Having supervisor support had stronger effect on women's income. Having superior support had positive effect on both men's and women's perceived career success.
Kirchmeyer Journal of Applied Psychology (2002)	292 midcareer managers at Time 1 and 207 at Time 2	Respondents indicated whether they had a mentor or had been a mentor	Xes	Self-report as both mentor and protégé	Masculinity & femininity at Time 2	Gender & career/life experience as moderators	Longitudinal study	Having been a mentor was related to increases in masculinity for both genders and stability of masculinity for women. Having a mentor was related to increases in masculinity for men only. The stability of masculinity for mentored managers

was lower than nonmentored managers.

Author/ Journal/Year	Sample Characteristics	Measure of Mentoring Functions	Definition of Mentoring?	Data Source	Outcomes	Moderators/ Mediators	Methodology	Key Findings
Kirchmeyer Human Relations (2005)	143 American academics who earned doctoral degrees in accounting between 1984 and 1987	Respondents reported whether they had mentors or not, and, if yes, how many	Yes	Protégé self-report and secondary data	Salary and rank	Publications as mediator of mentoring's influence on rank and salary	Longitudinal study	Mentoring in academia benefits both career advancement and performance. Higherranking mentors influenced protégés' salary even after controlling for publications.
Koberg, Boss, Chappell, & Ringer Group & Organization Management (1994)	635 technical, professional, and managerial hospital employees	Noe's 7 items for career functions	Yes	Protégé self-report	Job satisfaction & work alienation	∀ 72	Cross-sectional survey	Mentoring was higher for men than for women. Organizational variables accounted for more variance in mentoring than individual variables. Mentoring was related to higher job satisfaction and lower work alienation.
Koberg, Boss, & Goodman Journal of Vocational Behavior (1998)	387 technical, professional, and managerial hospital employees	Noe's 14-item for psychosocial functions	Kes	Protégé self-report	Self-esteem at work, job involvement, & intention to quit	Gender & race as moderators	Cross-sectional survey	Mentoring was higher for Whites than for Hispanics or African Americans, but no difference was found between men and women. Protégés in same-sex and same-race dyads reported more mentoring.

ਰੇ
Ф
n
₹
ō
\cup
_
m
<u>o</u>
9
<u>a</u>

Author/ Journal/Year	Sample Characteristics	Measure of Mentoring Functions	Definition of Mentoring?	Data Source	Outcomes	Moderators/ Mediators	Methodology	Key Findings
								Mentoring was positively related to job involvement and self-esteem, and negatively related to intention to quit.
Mobley, Jarat, Marsh, & Lim Sex Roles (1994)	1,132 lawyers	Respondents indicated whether they had a mentor or not	Kes	Protégé self-report	Job satisfaction & dissatisfaction with case responsibilities	₹ 2	Cross-sectional survey	Mentoring was positively related to job satisfaction and negatively related to dissatisfaction with case responsibilities. No gender difference was found for mentoring.
Murphy & Ensher Journal of Career Development (2001)	158 employees in a media organization and a school district	Scandura & Katerberg's 18 items for vocational support, rolemodeling, & psychosocial support	Kes	Protégé self-report	Perceived career success and job satisfaction	Mentoring as moderator	Cross-sectional survey	Only vocational support was related to job satisfaction and perceived career success. Protégés with more vocational support and engaged in self-management reported greater job satisfaction. Protégés with more psychosocial support and

and employing self-management were related to career satisfaction.

self-management reported greater job and career satisfaction. Role-modeling

engaged in

Author/ Journal/Year	Sample Characteristics	Measure of Mentoring Functions	Definition of Mentoring?	Data Source	Outcomes	Moderators/ Mediators	Methodology	Key Findings
Noe Personnel Psychology (1988)	139 educators and 43 mentors	32 items developed to assess career and psychosocial functions	Yes	Protégé and mentor self-report	Career and psychosocial functions	∀	Survey	Women received more psychosocial benefits than men. Protégé characteristics, gender, effective utilization of the mentor. and amount of time spent interacting with the mentor did not have an effect on career mentoring. Protégé gender explained significantly more variance in psychosocial mentoring than other predictor variables.
Orpen Journal of Social Psychology (1995)	97 newcomers in Britain	15 items from Noe & Burke for career and psychosocial functions	o Z	Protégé self-report	Number of promotions, salary growth	∀ Z	Cross-sectional survey	Career mentoring was related to the number of promotions and salary growth. But psychosocial mentoring was not related to career success.
Payne & Huffman Academy of Management Journal (2005)	1,334 U.S. Army officers	Respondents reported whether they had mentors or not, and, if	Yes	Protégé self-report	Organizational commitment & turnover	Supervisory vs. nonsupervisory conditions of mentoring as	Longitudinal study	Protégés had higher levels of both affective commitment and continuance commitment than nonmentored

$\overline{}$
0
\tilde{a}
=
_
\Box
=
_
0
Ō
Ų,
\cup
$\stackrel{\smile}{\sim}$
<u>ٽ</u> 7.
3.1
<u>ٽ</u> 7.

Author/ Journal/Year	Sample Characteristics	Measure of Mentoring Functions	Definition of Mentoring?	Data Source	Outcomes	Moderators/ Mediators	Methodology	Key Findings
		yes, whether they were supervisory or nonsupervisory				moderator, and affective commitment as mediator between mentoring and turnover		employees 1 year later. Protégés with supervisory mentors reported higher affective commitment than protégés with nonsupervisory mentors. Affective commitment partially mediates the relationship between mentoring and turnover.
Prevosto Military Medicine (2001)	100 army nurses	Dreher & Ash's mentoring scale	Yes	Protégé self-report	Job satisfaction & intention to stay	N/A	Cross-sectional survey	Mentored nurses reported more job satisfaction and higher intention to stay than nonmentored nurses.
Ragins & Cotton Journal of Applied Psychology (1999)	352 females and 257 males from national sample of journalists, social workers, & engineers	Ragins & McFarlin's 33 items for career and psychosocial functions	, Kes	Protégé self-report	Mentor satisfaction, promotion rate, and current annual compensation	Gender & mentorship types as moderators	Survey survey	Protégés with informal mentoring reported higher levels of satisfaction with mentors and more compensation than protégés with formal mentoring. Having a history of male mentors was related to more compensation. Protégés in cross-gender dyads reported less career mentoring in formal mentoring. Female protégés may have the least to gain from formal mentoring.

Author/ JournallYear	Sample Characteristics	Measure of Mentoring Functions	Definition of Mentoring?	Data Source	Outcomes	Moderators/ Mediators	Methodology	Key Findings
Ragins, Cotton, & Miller Academy of Management Journal (2000)	1,162 social workers, engineers, & journalists	Respondents indicated the type of mentoring program they were in	Yes	Protégé self-report	Career commitment, job satisfaction, organizational commitment, organization-based self-esteem, promotion opportunities, intention to quit, & procedural justice	Mentorship types as moderator	Survey	Satisfaction with mentoring relationships had a stronger link to protégés' job and career attitudes than the presence of a mentor. Mentoring program design did not have a positive effect on protégés' attitudes. Protégés in same-department dyads reported lower satisfaction. Women with formal mentors were less satisfied than men and reported less career commitment than men and nonmentored protégés.
Riley & Wrench Journal of Applied Social Psychology (1985)	171 female lawyers	29 items were developed to assess 4 facets of career support	Yes	Protégé self-report	Perceived career success & career satisfaction	N/A	Cross-sectional survey	Protégés in traditional mentoring perceived higher levels of career success and satisfaction than group-mentored protégés and nonmentored protégés.

Table 3.1 (Continued)

Methodology Key Findings	Cross-sectional Mentoring augmented the effects of leader-member exchange (LMX) on salary growth and promotion rate. LMX augmented the effects of mentoring on performance but not salary growth and promotion rate.	Cross-sectional Supervisory career mentoring (SCM) was related to job satisfaction, organizational commitment, and career expectations beyond transformational leadership.	Longitudinal Mentored engineers study reported higher levels of job satisfaction than nonmentored engineers, but not organizational commitment, work role
Moderators/ Mediators	N/A	Attributed charisma and individualized consideration as mediators	N/A
Outcomes	Promotion rate, salary growth, & supervisory ratings of performance	Job satisfaction, organizational commitment, & career expectations	Job satisfaction, organizational commitment, work role stress, & self-esteem at work
Data Source	Protégé and mentor self-report & personnel records	Protégé self-report	Protégé self-report
Definition of Mentoring?	Yes	√es	Yes
Measure of Mentoring Functions	Clawson's six items for supervisor career mentoring	Scandura's seven items for measuring career mentoring	Noe's 21 items for psychosocial and career-related functions, and interaction
Sample Characteristics	244 protégés (middle-level managers) & 191 mentors	275 full-time employed MBAs	109 newly hired engineers
Author/ Journall'Year	Scandura & Schriesheim Academy of Management Journal (1994)	Scandura & Williams Journal of Vocational Behavior (2004)	Seibert Journal of Vocational Behavior (1999)

Author/ Journal/Year	Sample Characteristics	Measure of Mentoring Functions	Definition of Mentoring?	Data Source	Outcomes	Moderators/ Mediators	Methodology	Key Findings
Seibert, Kraimer, & Liden Academy of Management Journal (2001)	448 managerial and professional employees	Dreher & Ash's eight items for career sponsorship	N/A (focus not mentoring)	Respondent self-report	Current salary, number of promotions, & career satisfaction	Network benefits as mediators	Cross-sectional survey	Access to information and career sponsorship mediated the relationship between career network contacts and career outcomes.
Sosik & Godshalk Group & Organization Management (2004)	dyads— corporate employees in multiple firms	Noe's 17 items for career-related and psychosocial functions	Xes	Protégé self-report & mentor self-report	Job satisfaction, career satisfaction, desired aspirations, & enacted aspirations	X X	Cross-sectional survey	Protégés in overestimator dyads reported the least psychosocial support and career satisfaction. Protégés in underestimator dyads reported the most mentoring and favorable outcomes. Protégés in inagreement/good dyads reported receiving more psychosocial support than those in in-agreement/poor dyads and overestimator dyads.
Sosik & Godshalk Journal of Organizational Behavior (2000)	204 mentor- protégé dyads— corporate employees in multiple firms	Noe's 20 items for career-related and psychosocial functions	Ke	Protégé self-report & mentor self-report	Job-related stress	Mentoring as moderator	Cross-sectional survey	Mentor's leadership style was related to mentoring received. Mentoring received was negatively related to job stress. Having male mentors was related to higher levels of job stress.

Table 3.1 (Continued)

Author/ Journal/Year	Sample Characteristics	Measure of Mentoring Functions	Definition of Mentoring?	Data Source	Outcomes	Moderators/ Mediators	Methodology	Key Findings
Tharenou Australian Journal of Management (2005)	3,220 lower- and middle-level managers from public and private sectors in Australia	Ragins & McFarlin's 21 items for career and psychosocial functions	Yes	Protégé self-report	Salary, number of promotions, & managerial level	Gender as moderator	Longitudinal study	Career support increased women's career advancement more than it did men's. Psychological support reduced women's advancement, more than for men.
Turban & Dougherty Academy of Management Journal (1994)	147 managerial and professional employees	Dreher & Ash's 18 items for career and psychosocial functions	Xes	Protégé self-report	Salary, number of promotions, & perceived career success	₹	Cross-sectional survey	Internal locus of control, high self-monitoring, and high emotional stability increased initiation of mentoring, which mediated the relationships between personality traits and mentoring received. Mentoring received was positively related to career outcomes.
Wallace Journal of Vocational Behavior (2001)	231 female lawyers in Canada	Respondents reported whether they had mentors or not	Kes Kes	Protégé self-report	Income, perceived promotional opportunities, procedural justice, social integration, career satisfaction,	Gender as moderator	Cross-sectional survey	Women with female mentors reported higher levels of subjective career outcomes. Women with male mentors reported higher earnings. Being mentored was positively related to all career outcomes except for

Author/ Journal/Year	Sample Characteristics	Measure of Mentoring Functions	Definition of Mentoring?	Data Source	Outcomes	Moderators/ Mediators	Methodology	Key Findings
					intention to stay, fulfillment of career expectation, & work-nonwork stress			intention to stay and work-nonwork stress.
Waters, McCabe, Kiellerup, & Kiellerup Journal of Business and Psychology (2002)	77 protégé and 68 mentors in a new business start-up program in Australia	Waters, McCabe, Kiellerup, & Kiellerup's eight-item "mentoring in new business", scale	Kes	Protégé self-report & mentor self-report	Profit, perceived success, & self-esteem	₹	Cross-sectional survey	Perceived success and protégés' self-esteem were predicted by frequency of contacts with mentors and mentoring functions.
Wayne, Liden, Kraimer, & Graf Journal of Organizational Behavior (1999)	245 supervisor- subordinate dyads—exempt employees of large corporation	7-item supervisor career mentoring scale adopted from Noe and Whitely et al.	Yes	Protégé self-report & mentor self-report	Salary progression, promotability, & career satisfaction	NA	Cross-sectional survey	Supervisor's mentoring was related only to higher level of promotability.

_	
=	١
σ	
ď١	
~	
=	
\subseteq	
≂	
~	
0	
()	
\sim	
\sim	
_	
Υ.	
~~	
(1)	
41	
Ψ	
≝	
ğ	
able	

Author/ Journal/Year	Sample Characteristics	Measure of Mentoring Functions	Definition of Mentoring?	Data Source	Outcomes	Moderators/ Mediators	Methodology	Key Findings
Whitely & Coetsier Organization Studies (1993)	148 early career managerial and professional employees in Belgium	Whitely, Dougherty, & Dreher's 10 items for career-related functions	Yes	Protégé self-report	Number of promotions, total compensation, general work satisfaction, & career satisfaction	NA	Cross-sectional survey	Career mentoring was related to the number of promotions, general work satisfaction, and career satisfaction, but not to total compensation.
Whitely, Dougherty, & Dreher Academy of Management Journal (1991)	404 early career managerial and professional employees	Whitely, Dougherty, & Dreher's 10 items for career-related functions	≺es	Protégé self-report	Number of promotions & total compensation	Socioeconomic status as moderator	Socioeconomic Cross-sectional status as survey moderator	Career mentoring was related to the number of promotions and total compensation. Career mentoring had a greater relationship with promotion for people from higher socioeconomic harkgrounds

Allen and colleagues (2004) had predicted that objective career outcomes would have a stronger relationship with career mentoring than with psychosocial mentoring. The results indicated mixed support. Compensation and promotions were slightly more strongly related to career than to psychosocial mentoring, although the removal of one large sample study indicated a much larger difference in the expected direction. Finally, the authors predicted that subjective career outcomes would be more strongly related to psychosocial mentoring than to career mentoring. However, the results provided little evidence that subjective career outcomes are more strongly linked to psychosocial versus career mentoring. In contrast, results indicated that psychosocial mentoring does appear to be related more strongly to satisfaction with mentoring than does career mentoring.

In summary, Allen and colleagues (2004) provided evidence, based on over 40 empirical studies, that mentoring is associated with protégés' receipt of both objective and subjective outcomes, although the effect sizes for objective outcomes tend to be small. The most consistent benefits of mentoring appear to be the relationships with affective reactions at work and positive feelings about one's career. It also appears that the type of mentoring (e.g., career versus psychosocial) may be important for outcomes, in that there is some evidence that objective outcomes are more strongly linked to career than to psychosocial mentoring. Allen et al. also made the interesting observation that effect sizes for objective indicants of career success were stronger when comparing "mentored versus nonmentored" individuals, as opposed to studies of the connection between mentoring functions provided and objective outcomes. They pointed out that, first, degree of mentoring provided may not be as important as the presence of a mentor and, second, current operationalizations of mentoring functions do not capture all aspects of mentoring that are related to career success. In this vein, some qualitative research has identified a variety of mentoring behaviors that may be important, such as provision of networking opportunities and breadth of skill development, which are not adequately captured by mentoring scales in common use (Eby & McManus, 2002). Finally, Allen et al. (2004) suggested that career mentoring is just as important for positive job and career attitudes as is psychosocial mentoring.

Mentoring and Career Outcomes: Characteristics of Studies and Implications

Considering the 47 studies of mentoring and protégé outcomes shown in Table 3.1, we offer some summary observations about this literature. First, the overwhelming majority of these studies used samples of managerial and professional employees. The sample sizes ranged from 77 to 3,220, with the median at slightly over 200, including a few studies collecting data from mentor-protégé dyads. Virtually every study collected self-report data from protégés, with a few also collecting data from mentors. Almost all of the studies provided some kind of definition of a mentor to respondents. In addition, about 75% of the studies measured mentoring functions received using a multi-item scale. Almost all of the studies were cross-sectional

studies (i.e., all data were collected on the same survey at one time). However, there were six longitudinal studies. There were also several studies that examined moderator variables, especially gender and race.

We find it interesting that researchers have used such a wide variety of scales to measure mentoring functions. It appears that for more than one third of the studies, a unique scale was developed; there were 15 studies reporting scales with only one or two uses among all the studies in the meta-analysis. The most popular scale was that of Noe (1988), used in 12 of the studies, which measures career and psychosocial functions. Scales by Dreher and Ash (1990) and Ragins and McFarlin (1990) were cited in 4 and 3 (respectively) of the studies. Researchers would benefit from some systematic analysis of the equivalence and relative strengths and weaknesses of mentoring scales in use. As noted by Allen et al. (2004), these scales tend to provide a variety of kinds of instructions to participants. Finally, many studies did not specify or limit protégé self-reports of mentoring as to informal or formal mentoring relationships. A handful of studies did explicitly investigate formal mentoring relationships, and as Allen et al. observed, these formal and informal mentorships may not provide the same benefits.

Thus, Allen and colleagues' (2004) meta-analysis of studies of mentoring and career outcomes synthesized results typified by cross-sectional data collection from a few hundred managerial-professional protégés, who self-reported informal and/ or formal mentoring received and their attainment of both objective and subjective career outcomes. We refer to these study characteristics (and Table 3.1) in subsequent parts of this chapter. We next turn to a more substantive exploration of a variety of conceptual matters.

Conceptual Issues in Mentoring Research

Where We Have Been in Defining Mentoring

The Concept of Mentoring and Mentoring Functions

Kram (1985) is the most often cited source for a definition of mentoring in the workplace. The traditional mentor is considered to be a senior individual who provides guidance and assistance to a more junior individual (the protégé). Kram's analysis of qualitative data led to two broad categories of mentoring functions provided to a protégé: career and psychosocial functions. *Career mentoring functions* involve specific mentor behaviors supportive of the protégé's career progress, which directly enhance the likelihood of the protégé becoming successful in his or her career. Whereas career functions directly help the protégé succeed in his or her career, *psychosocial functions* are more personal aspects of a relationship that tend to enhance a protégé's sense of professional competence and identity.

The vast majority of mentoring research in work organizations has adopted the Kram framework, although there is some evidence suggesting that role-modeling may be a third distinct function (Scandura, 1992). We also note that Kram did not use the term *mentor* in conducting her research, out of concern that the word had

too many nuanced connotations. Instead, she chose to ask about "developmental relationships." We believe that attention to definitional issues is important for making future progress in understanding mentoring and career outcomes. We now turn to this issue.

Examining Alternative Definitions of Mentoring

To provide a discussion of how researchers have defined informal mentoring, we go beyond the studies in Table 3.1, drawing upon some recent work by Dougherty, Turban, and Haggard (2005). They performed an assessment of the variety of definitions and approaches to defining mentoring in empirical articles on informal workplace mentoring. In this effort, they examined articles appearing during the period from 1990 to 2005 in the five journals in which the majority of workplace mentoring studies have appeared. Their assessment was restricted to studies including the protégé (i.e., not exclusively studying mentors). The studies investigated a variety of aspects of mentoring in addition to protégé career outcomes, but we believe that this assessment of how scholars define mentoring is relevant for this chapter's consideration of conceptual and methodological issues.

Dougherty and colleagues' (2005) assessment revealed much variability as to the definition of mentoring used in research. For example, although many studies provided detailed definitions to respondents, several researchers chose to simply ask, "Do you currently have a mentor?" Some investigators also administered a mentoring functions scale to protégés, to establish the amount of mentoring provided, thus assuming that individuals who provide mentoring functions are in fact "mentors," which may or may not be the case. In the studies collecting data from protégés that did include a definition of a mentor (73%), there was appreciable variety in the definitions used. Not surprisingly, in these studies, the percentage of individuals who identified themselves as having a mentor ranged from 23% to 81%—a likely result of differing mentoring definitions and/or sample characteristics.

The variety of definitions of mentoring included several features that are especially notable. In regard to a focus on a specific mentor, the majority of definitions asked whether the respondent had "a mentor," thus implying one specific person. However, some definitions indicated that only one person should be considered, while others asked about mentoring received over the career history, especially those studies using mentoring functions scales. As to hierarchy, some definitions merely indicated that a mentor has "more" or "advanced" experience, implying some hierarchical difference, while other definitions specified that the mentor is at a higher level, although using varied terms such as *influential*, *higher-ranking*, *senior*, and *position of power*. These terms do not all clearly identify just where in the hierarchy the mentor is located. In addition, a handful of the studies included peers as a source of mentoring. Similarly, in several studies, definitions specifically included supervisors, whereas a few specifically excluded supervisors as mentors. About half of the studies assessed did not mention the supervisor at all.

Mentoring definitions have also provided differing levels of detail in describing mentoring functions received by protégés, with many including examples of both

psychosocial and career functions, while others included only one. Interestingly, more of these definitions specified career functions than psychosocial functions. A well-exercised phrase was that a mentor is a person "committed to providing upward mobility to your career." Other definitions implied career support without spelling it out. As to intimacy of the relationship, some (only a few) defined mentoring relationships as being "close" or "intense." Finally, most mentoring definitions in research have either explicitly stated that the mentor is internal or at least implied it, using a phrase such as "in your work environment."

About a fourth of the studies measured mentoring functions using scales, without an explicit definition of a mentor. These researchers avoided the variety of connotations associated with the word *mentor*. However, the degree to which these scales ask about a particular mentor versus "mentoring functions received" raises the issue of whether the construct being measured is a mentoring relationship or, alternatively, mentoring functions received from any number of sources.

There may be notable implications of the variety of definitions used in research on mentoring and outcomes. Wanberg and colleagues (2003) pointed out that although there is a lack of definitional consistency, there is consistency in the general concept of mentoring, at least for traditional mentoring relationships. Nevertheless, scholars need to carefully consider the definition(s) of mentoring they present to research participants and consider the implications. We cite a few key issues and examples.

Defining the Mentoring Construct: Problems and Issues

The most obvious definitional problems for interpreting the literature stem from use of a vague definition of *mentoring* in some studies ("Do you have a mentor?") and in some cases no definition at all. With no definition, participants can decide who does or does not meet the test of mentorship. For studies using vague definitions, interpreting the results in comparison to other mentoring studies poses a challenge for the researcher. That is, reviews of the literature and meta-analyses of mentoring research are limited by this conceptual diversity, creating error variance restricting our ability to effectively assess mentoring relationships and summarize research findings.

In addition, there is a potential problem of vagueness even with studies that measure specific mentoring functions received by protégés. For example, consider studies that present a multi-item mentoring scale to participants, asking them to report their receipt of (mostly "secondary") mentoring assistance from multiple mentors over their careers (e.g., Turban & Dougherty, 1994; Whitely et al., 1991). Of course, the accuracy of participants' memories over time may be suspect. And as we discuss in more detail later in this chapter, such studies may be at least partly measuring a kind of generalized career affect. Some individuals might even indicate significant mentoring received (e.g., on scales), while not being able to name any one individual they ever considered to be a mentor to them.

Similarly, there may also be problems with the use of clearly defined but highly descriptive definitions of mentoring, such that the definitions of mentoring include,

or strongly imply, the benefits received by protégés. Consider studies that include in the definition of a mentor that this person has "helped you by supporting your career" (Aryee, Lo, & Kang, 1999, p. 568) or definitions specifying that the person "is committed to providing upward mobility and support to your career" (Baugh, Lankau, & Scandura, 1996, p. 313). These descriptive definitions make sense for studies addressing topics such as willingness to mentor others. But they may be problematic for studies investigating mentoring and career outcomes received, in that the very definition of mentoring includes the provision of these outcomes. We acknowledge that one could also argue that this "common method variance" problem derives from how we measure the outcome variables. Regardless, overlapping content in the predictor and the criterion variables could artificially inflate correlations.

In contrast, some researchers have used highly precise and/or narrow definitions of mentoring, such as specifically excluding supervisors in definitions of mentoring. Even with diverse definitions across studies, precise (versus vague) definitions make it possible to better understand differing research results across studies.

It is likely that one agreed-upon, uniform definition of mentoring would be difficult, since mentoring falls along a range of quality. But whether studies include or do not include specification of the scope of mentoring is likely to have implications for their results. We cite a few examples. First, studies that define mentoring as career mentoring only (versus psychosocial) may be more likely to find relationships of mentoring with protégé career progress and less likely to find relationships of mentoring with work attitudes (although Allen et al.'s (2004) meta-analysis results did not support this prediction). Second, studies with mentoring definitions allowing for or specifying direct supervisory mentoring may find differences compared with nonsupervisory mentoring, such as protégés' receipt of less sponsorship and exposure/visibility, because of a direct supervisor's limited power compared with a top executive. However, supervisors might be able to provide more of some career functions, such as coaching and challenging work. A few studies have found differences in mentoring from supervisors versus others, although not necessarily along the lines suggested here (Burke, McKenna, & McKeen, 1991; Ragins & McFarlin, 1990; Tepper, 1995). A third example is that studies with definitions allowing for outside-the-organization ("external") mentoring might find less career mentoring and less enhancement of protégés' career progress. Each of these sources of speculation could be empirically tested if there were enough studies using various definitions and boundary conditions for what is considered to be mentoring. Our purpose here is to underscore the potential importance of alternative definitions of mentoring for our interpretation of the mentoring literature and comparisons among studies.

Defining Mentoring: Where We Should Be Going

The issues discussed above also lead to recommendations to researchers studying workplace mentoring. Instead of providing only a vague definition of a mentor or asking research participants to report on narrowly defined relationships—thereby limiting the definition of mentoring a priori—researchers should gather

data on the full range of relationships and then collect additional, more detailed information describing the relationships. Researchers, for example, might ask about a general developmental relationship and then gather more specific information about the nature of this relationship (e.g., Is this person your supervisor, higher in the hierarchy? Is it formal or informal, internal or external? Would the person see himself/herself as a mentor?). Using this approach (see Ragins, 1999) would allow researchers to capture the full range of mentoring relationships and provide a more precise analysis. This approach would be consistent with Kram's (1985) original assertion that traditional mentoring is only one part of a person's relationship constellation including peers, family, subordinates, supervisors, and others. The approach is also consistent with Higgins and Kram's (2001) recent reconceptualization of mentoring as a developmental network.

Conceptual Issues: The Criterion Problem

As shown in our previous discussion of the mentoring literature, researchers have considered a variety of dependent variables in their studies of the benefits associated with the establishment of mentoring relationships. These are often categorized as being either objective or subjective in nature. Common criterion variables of the objective variety typically include measures of protégé compensation levels, salary growth, and promotion rates. Subjective measures typically include a focus on career and job satisfaction along with protégé satisfaction with the mentoring relationship. A few studies have also addressed protégé career commitment and intention to stay with a current employer. And actual turnover has been considered as a direct outcome of mentoring (Payne & Huffman, 2005).

While prior research has covered a relatively wide range of outcome variables, we first note that other interesting potential consequences would be worthy candidates for future studies. For example, on the benefits side, we would suggest moving beyond the organizational context and considering the effects of mentoring relationships on extraorganizational functioning and satisfaction. Here, a focus on life satisfaction, the ability to balance the competing demands of a career and a family (see Greenhaus & Singh, Chapter 21, this volume), and the ability to manage the stressful nature of very competitive labor markets could lead to some interesting findings. We also note recent calls for extending mentoring criteria to capture relational elements of mentoring as part of one's set of "positive relationships" and the experience of growth, learning, and development (Fletcher & Ragins, Chapter 15, this volume; Ragins & Verbos, 2007). The consideration of negative and unintended effects of mentoring also offers new insight. In this vein, we applaud some recent research on the potential negative effects of mentoring, including exploitation and sexual harassment of protégés (Eby, Chapter 13, this volume; Eby & McManus, 2002; Eby, McManus, Simon, & Russell, 2000). It also would be useful to study the consequences for the protégé of being associated with a mentor experiencing varying degrees of career failure (e.g., being found in violation of accounting rules, being discredited for initiating a failed strategic initiative, etc.).

Next, we point out that the mentoring literature has traditionally focused on outcomes at the individual level of analysis. Mentoring might be considered at the group level also, and there is a clear need to consider mentoring from the perspective of employing organizations. What is intriguing here is the possibility that in some situations, what is good for the individual protégé or mentor may not be good for the organization. We offer two examples. First, consider the mentor who helps the protégé by providing information about extraorganizational job opportunities. By helping a protégé learn about a profession and the opportunities that reside outside the employing organization, high-quality mentoring may encourage voluntary turnover. Of course, this outcome may be "bad" for one organization and "good" for another organization, and it might ultimately result in a better person-organization fit. Thus, the relationship between organizational mentoring programs and turnover rates may be rather complex.

Also, we know virtually nothing about the ability of mentors to accurately identify high-potential job candidates. Conventional wisdom would suggest that the establishment of a "mentoring/development-oriented culture" in an organization would lead to improved talent pool management. An organization with a strong developmental culture consciously uses work experiences and work relationships to develop employees, has intense involvement by senior management, includes a strong succession planning process, and empowers employees to be self-directed, among other characteristics (see Hall & Mirvis, 1996). But if accelerated developmental experiences are not being offered to the right individuals, talent pool management and the building of bench strength may be compromised. Systematically studying the linkages between mentoring-oriented organizational culture and indices of quality talent pool management could prove useful.

While the issues just discussed are important, we believe the most crucial issues related to the criterion problem are represented by the distinction between distal (long-term) and proximal (immediate) outcomes of mentoring relationships—a set of processes that are proposed to mediate the relationships between mentoring and outcomes represented in the literature. We turn our attention to this topic in the final section of this chapter.

Research Design Issues: Internal Validity and Method Variance Problems

Problems Presented by Cross-Sectional Field Studies of Mentoring

As we discussed earlier in the chapter, the vast majority of studies of mentoring and career outcomes are conducted as cross-sectional field studies. In this section, we discuss a variety of design issues relevant to these kinds of studies.

Internal Validity: Direction of Causality

One key research issue in these studies of mentoring outcomes relates to what could be placed under the category of *internal validity*. As Wanberg et al. (2003) pointed out, researchers have sometimes used causal language in reference to

cross-sectional mentoring findings, such as referring to mentoring as a significant determinant of career success. There are several internal validity problems stemming from the use of cross-sectional designs. One internal validity problem pertains to direction of causality. Mentoring researchers, while testing associations only among variables, tend to interpret their findings as support for the notion that receipt of mentoring leads to one's career success, including outcomes such as promotions, compensation, and career satisfaction. However, as has been noted in reviews of the mentoring literature (e.g., Noe et al., 2002) we must acknowledge the possibility that these associations among variables reflect a reverse direction of causality—effects of protégé career success on receipt of mentoring. In this vein, Noe et al. cited the study by Dreher and Ash (1990), in which protégés with selfreported formal or informal mentoring relationships received more promotions than those who did not specify mentoring relationships, regardless of protégé gender. A reciprocal relationship could explain these results, such that early career success leads to being chosen for mentoring by senior managers or being selected for a mentoring program, thus enhancing protégé career success. In support of this line of thinking, some research demonstrates that mentors tend to choose protégés who are judged to be the highest performers (Olian, Carroll, & Giannantonio, 1993) and protégés who have high ability and motivation, as opposed to protégés who are most in need of assistance (Allen, Poteet, & Russell, 2000).

Clearly, longitudinal research is of great value in clarifying these causal directions. As we reported earlier (see Table 3.1), we identified only six studies of mentoring and protégé outcomes that were not strictly cross-sectional, with mentoring and outcome data collected at more than one time. Interestingly, these studies have typically been supportive of the researchers' hypothesized direction of causality. As examples, studies have found that mentoring (or developmental relationships) measured at one point in time was related to subsequent organizational commitment and organizational citizenship (Donaldson, Ensher, & Grant-Vallone, 2000) and to professionals' promotion to partner 7 years later (Higgins & Thomas, 2001). But as Allen et al. (2004) pointed out, we currently have little guidance as to the appropriate time lag for capturing the receipt of mentoring outcomes.

Internal Validity: Alternative or "Third-Variable" Explanations

A related internal validity issue for mentoring research pertains to ruling out alternative explanations for relationships of mentoring to career outcomes by taking other variables into account. Sometimes this is referred to as the problem of "third-variable explanations" for relationships between two variables. We cannot expect highly controlled experiments with random assignment to be feasible in the study of informal mentoring. But there clearly is a need for research demonstrating the extent to which mentoring is the unique driver of positive outcomes (Wanberg et al., 2003). We note that some studies have used quite extensive sets of control variables in cross-sectional studies of mentoring and outcomes, including human capital variables (e.g., education), job and organizational variables, motivational variables (e.g., hours worked per week), and demographic variables (see Dreher & Ash, 1990; Turban & Dougherty, 1994; Whitely et al., 1991). The extensive use of

control variables requires larger samples but allows for examining the incremental value of mentoring for career success. It also allows for ruling out a considerable number of potential third-variable explanations for relationships of mentoring with career outcomes.

Nevertheless, we note that Wanberg et al. (2003) drew special attention to the need for mentoring studies to control for key individual characteristics of protégés, especially protégé ability and motivation, in examining the association of mentoring with protégés' career success. Few studies have controlled for these kinds of factors. Some studies have controlled for some aspects of ability, such as GPAs, test scores, and graduates' scholastic rankings. Similarly, some studies have examined "proxies" for motivation, such as work centrality and hours worked per week. But it appears that studies have not controlled for both protégé ability and motivation. One exception is a study of faculty advisors' career mentoring of doctoral students and linkages to students' career success (Green & Bauer, 1995). The researchers controlled for ability using GRE scores, and for motivation using a measure of doctoral-student commitment. When these factors were controlled, the relationship of mentoring to career success (publications) was no longer significant.

Self-Reports and Method Variance Inflation of Relationships

In addition to internal validity issues, a second key research design issue in cross-sectional mentoring studies stems from the predominant use of self-reports, usually from protégés, as the single source of data in studies of mentoring and career outcomes. Because all data comes from the same source, we should expect some inflation of observed relationships, resulting from several kinds of common methods bias. We draw from excellent treatments of this issue by Podsakoff, MacKenzie, Lee, and Podsakoff (2003) and Podsakoff and Organ (1986) in emphasizing some key sources of common methods bias we believe to be particularly relevant for mentoring research.

First, in self-reports, people may try to maintain consistency between their cognitions (e.g., receipt of mentoring functions) and their attitudes (e.g., perceived career success, career satisfaction). This desire of respondents to maintain consistency and appear to be rational in their responses is known as the consistency motif. A second, related source of common method bias is referred to as illusory correlations and implicit theories, meaning that respondents hold assumptions about how constructs or events are related. Thus, in the case of mentoring research, the relationships of mentoring with outcomes may reflect the true covariation of mentoring received with outcomes but also the implicit theories of respondents about the relationship between these events. For example, some respondents who feel that their careers have not been successful may also believe that (therefore) a lack of mentoring support is a major cause of this failure. The use of self-report data on mentoring and career outcomes in a cross-sectional survey provides ample opportunity for implicit theories to affect the research results. We recall that mentoring tends to be more strongly related to subjective indicators of career success (e.g., career satisfaction) than it is to indicators of objective career success (Allen et al., 2004). We suggest that one reason for these differential findings may be the various types of

method variance inflation of relationships among subjective perceptions, especially when collected on one survey at the same time. Again, separation of the measurement of variables theorized to be causes from those seen as effects could be helpful.

A third source of method bias relevant for mentoring research is *social desirability*, which refers to the tendency for respondents to respond in a way that presents themselves in a favorable light (Crowne & Marlowe, 1964). Thus, mentoring research participants who report attaining much success may feel a kind of internal pressure to also report, as a socially desirable response, that they have been helped along the way by powerful mentors—which may not be a true reflection of the way they really perceive career events.

A final source of common method bias we discuss here is positive and negative affectivity of respondents (see Podsakoff et al., 2003). As a relatively stable personal characteristic, some people tend to view themselves and the world around them in negative terms (negative affectivity), while others tend to regularly take a positive view. These individual dispositions may influence observed relationships between variables in self-report, cross-sectional studies. An example in a mentoring context is that respondents with high negative affectivity may be more likely to report that no mentors have helped their careers and also that they dislike their jobs (Wanberg et al., 2003). A solution is to control for negative affectivity in multivariate analysis. We should acknowledge here that it may also be true that protégés with high negative affectivity are, in fact, less likely to have mentors. It is also possible that a more transient mood state of respondents at the time of completing a survey could result in artifactual relationships among measured variables. Again, for a recent discussion of these and other sources of common method bias, see Podsakoff et al. (2003). We have emphasized some sources of method variance bias that are particularly relevant for cross-sectional mentoring research.

External Validity and the Influence of Key Moderator Variables

External Validity

As traditionally presented by authors such as Campbell and Stanley (1966), issues of external validity have to do with interactions between treatments (in this case the establishment of mentoring relationships) and (a) persons, (b) settings, and (c) times. While we will stay within this framework when commenting on external validity within the context of the mentoring literature, we note that a variety of variables (at the level of the developmental treatment itself) may moderate relationships between mentoring and outcome variables—and to some extent, these variables have already been addressed in the previous discussion of measurement issues and the nature of the mentoring construct. For instance, the duration and comprehensiveness of mentoring relationships would seem to have a lot to do with whether or not "having" a mentor would lead to positive career outcomes. Likewise, the payoff associated with developing a mentoring relationship would seem to be highly dependent on a wide variety of mentor (and protégé) attributes.

For example, high-quality mentoring relationships would seem to depend on whether the mentor possesses accurate and meaningful information about the protégé's organizational culture and strategic type and about the protégé's chosen career path. Also, whether or not the mentor is a skillful trainer would seem central to understanding the possible returns associated with mentoring. Here, we are thinking of behaviors such as listening, coaching, and communication skills. To date, as illustrated in Table 3.1, very little empirical research has addressed these possible moderators of mentoring/career-outcome relationships.

One topic that does relate directly to the nature of the mentoring construct itself is the whole issue of the distinction between informal and formal mentoring. Informal and formal relationships may differ on multiple dimensions (Ragins & Cotton, 1999). The most obvious dimension is the way the mentoring relationship is formed, with the former resulting from naturally occurring exchanges at work or in other social and community settings and the latter resulting from some type of matching process initiated within a company-sponsored mentoring program. While little research has systematically addressed the formal/informal distinction, the few studies that have suggest that the two may not be equally beneficial (Allen et al., 2004; Chao, Waltz, & Gardner, 1992; Ragins & Cotton, 1999). Additional research on this particular topic is clearly needed, including the increasing use of "e-mentoring," which is often a component of formal programs (see Ensher & Murphy, Chapter 12, this volume).

Interaction of Selection and Treatment (Mentoring)

From the Campbell and Stanley (1966) perspective, the issue here is whether any observed correlational or cause-effect relationships can be generalized beyond the group or groups used in the initial research. That is, do the results from any particular study generalize to various racial, sex, social, geographical, age, or personality groups? A review of Table 3.1 reveals that very little is currently known about this class of moderator variables. The most commonly considered moderators are gender and race, with gender being considered in some form in 13 of 47 studies and race being considered in 4 instances. Other moderators such as mentor age, protégé and mentor race, protégé influence tactics, and protégé socioeconomic origins have received some, but less, attention. What is most striking is that 81% of the studies represented in the Allen et al. (2004) review were conducted using U.S.-based samples. Samples from Belgium, Great Britain, Canada, Hong Kong, Ireland, and Singapore were singularly represented in the review, and two studies focused on survey respondents from Australia. Geographical location may be relevant because cultural-value differences are observed across geographical regions and these differences may moderate mentoring/outcome relationships. Cultural differences may also be related to the definition of mentor. In a recent study, Ramaswami, Huang, and Dreher (2005) observed that power distance moderated the relationship between mentoring and organizational level, such that among Taiwanese managers and professionals (who are reasonably high on power distance), the positive return associated with mentoring was strongest among high power distance protégés. Programmatic research is needed to better understand whether the association

between mentoring and career outcomes—most often studied within the context of U.S. culture—will generalize to national cultures that differ from the United States on an assortment of value and managerial-style dimensions.

Interaction of Setting and Treatment

Again, from the Campbell and Stanley (1966) perspective, this class of interactions asks whether relationships observed in one setting will generalize to other settings. Settings in this case typically refers to organizational, industrial, or occupational settings. Many of the studies displayed in Table 3.1 were based on managerial/ professional samples (often drawn from North American alumni associations). This type of sampling provides for some degree of heterogeneity across employing industries and occupations for protégés but tends to ignore large segments of the workforce, such as clerical workers or service workers. We also know of no studies that have explicitly hypothesized and systematically studied the moderating effects of industry or occupation. We also note that there have been attempts to focus on more homogeneous samples. For example, Mobley, Jaret, Marsh, and Lim (1994) and Riley and Wrench (1985) studied mentoring-outcome relationships among U.S.-based lawyers; Prevosto (2001) studied U.S. Army reserve nurses; and Kirchmeyer (2005) studied U.S. professors. While this work is useful from the external validity perspective, it does not provide for a theory-based framework for understanding how the strength of mentoring-outcome relationships may be sensitive to the types of firms, occupations, and industries within which protégés pursue their careers. Here again, research designs, and also new theoretical typologies, are needed. We summarize the set of conceptual and methodological issues discussed in this chapter in Table 3.2.

Specifying Mediating Processes and Moderator Effects

Mentoring's Influence on Protégé Career Trajectories: Five Paths

In the previous section on research design issues, we mentioned the difficulty of interpreting direction of causality in cross-sectional research on mentoring and protégé outcomes. Causal inferences about the positive effects of mentoring would be more defensible if the mechanisms through which mentoring is proposed to affect career outcomes were to become the focus of empirical investigations. That is, while the suggested studies may still be dominated by cross-sectional field studies, it would be more persuasive to argue for the positive effects of mentoring if a new class of criterion variables were shown to be correlated with mentoring experiences. Ramaswami and Dreher (in press) have proposed frameworks for understanding the intermediate linkages between mentoring experiences and career outcomes (for both the protégé and the mentor). They show five paths through which mentoring relationships can influence the career trajectory of a protégé.

Table 3.2	Summary of Key Conceptual and Methodological Issues in Studies of Mentoring and Protégé Career Outcomes
Definitional Variability	No definitions of mentor and mentoring Vague definitions of mentor and mentoring Narrow/exclusive definitions of mentor and mentoring
Criterion Limitations	 Need to focus more attention on: Extraorganizational functioning and satisfaction Positive relationships at work Negative/unintentional effects of mentoring The organizational perspective Effective talent pool management
Internal Validit Problems	Ambiguous direction of causality Alternative/third-variable explanation of relationships
Method Variar Inflation	Consistency motif Illusory correlations and implicit theories Social desirability effects Positive/negative affectivity
External Validit	y Interaction of selection and treatment (mentoring) Interaction of setting and treatment

Each path provides insight into what needs to be included in this new class of criterion variables. In what follows, we summarize the central tenets of the Ramaswami and Dreher protégé model and comment on some key moderator variables that have not received sufficient research attention.

Human Capital Path

Here, a variety of mentoring functions (i.e., providing challenging assignments, coaching, and role-modeling) could serve to enhance the capability of the protégé. The human capital path addresses the acquisition of job-related knowledge, skills, and abilities (KSAs) that ultimately should enhance the protégé's performance on the job. This, in turn, would be expected to contribute to an assortment of career-oriented benefits (e.g., increased salary and hierarchical advancement). What are needed are research designs that allow for the simultaneous examination of the structural paths making the connections between the various mentoring functions, protégé KSA acquisition, job performance, and career attainment and success. Even if these designs were not longitudinal, they would contribute to the literature. We

know of no studies that have simultaneously examined the entirety of the human capital path. In fact, we know of only one study that has examined a component of this path. Ostroff and Kozlowski (1993) found that newly hired employees with mentors had more knowledge about the technical and organizational attributes of their business units than workers without mentors.

Movement Capital Path

A second way a mentor can enhance the career success of a protégé is to provide the protégé with information about the range of intra- and interorganizational opportunities that may exist in a labor market. The distinction between human capital and movement capital is subtle. While movement capital can be represented by increased knowledge (in this case, knowledge about labor market attributes), this knowledge has little to do with direct forms of performance enhancement. Movement capital helps the protégé to become more aware of available opportunity in the labor market. The link to career outcomes comes through a better match between capability and position requirements. Improvements in human capital prove useful because job performance is improved, even when holding position requirements constant. Past studies have shown that labor market mobility is related to career attainment, at least for male managers and professionals (Brett & Stroh, 1997; Dreher & Cox, 2000; Lam & Dreher, 2004). Although a few studies have addressed components of this path by considering the relationships between mentoring and organizational commitment, turnover, and perceived job opportunities (e.g., Barker, Monks, & Buckley, 1999; Mobley et al., 1994; Payne & Huffman, 2005; Prevosto, 2001), none has considered the entirety of the path. To do so would require looking at mentoring and mobility from a career perspective, not from the perspective of a particular job or organization.

Social Capital Path

At the heart of the social capital path is the increased degree of exposure and visibility for the protégé that is purported to be associated with establishing a relationship with a mentor. The human capital path involves changes in the protégé's capacity to perform work assignments; the movement capital path involves changes in the protégé's knowledge about labor market opportunity; and the social capital path involves changes in relationships that make powerful decision makers more knowledgeable about the protégé's potential. Hard work, talent, and perseverance would seem to be necessary attributes for success for individuals pursuing hierarchical career advancement. However, talent and hard work alone would not seem to be sufficient for career progress. Powerful decision makers must become aware of talented individuals before they can act to utilize this talent. Kram's (1985) mentoring functions of sponsorship, exposure and visibility, and protection seem well suited to help protégés make connections and become part of the professional networks of high-level decision makers. Note, the key theme here is not that mentors change the capability levels of their protégés; it is that mentors make senior-level decision makers aware of protégé attributes. There would seem to be a variety of ways mentors can help protégés in this way. One is by carefully placing the protégé in situations that will bring the protégé and senior-level managers and executives into direct contact. Of course, this must be orchestrated such that the protégé is prepared and ready to behave in ways that will impress the more-senior manager—that is, the protégé should not be placed in situations that provide a reasonable likelihood of failure.

Other ways to help the protégé could take the form of explicit sponsorship. Here, the mentor could work behind the scenes (note that in this situation, the protégé may not have direct knowledge of the mentor's behavior) in promoting the protégé's interests. Nominating a protégé for a key promotion or work assignment or building the case for a protégé during a meeting of a talent pool committee represent examples of behind-the-scene mentor behavior that could alter the career trajectory of the protégé. Again, in this case, the actual behavior or capability level of the protégé is not affected in any direct way.

The preferred way to examine processes associated with the acquisition of social capital would be for researchers to directly gather information about mentor behavior. This is the preferred way because protégés are often not good sources for this type of information. While protégés can describe a wide range of mentor behaviors, they are not always able to observe or be informed of what the mentor does on their behalf when interacting with senior managers. Therefore, ways of measuring mentor behavior that go beyond using protégé ratings and descriptions of mentor behavior should be used and then combined with data about protégé career success. We are not aware of any empirical research that has addressed this class of questions in this particular way.

Another way to address the social capital path is to explicitly examine the role of sponsorship and related mentor functions in fully estimated social capital/career success models. The best example of this approach is the study by Seibert, Kraimer, and Liden (2001). These researchers proposed a model of social capital effects on career success and then empirically tested it using a sample of business and engineering alumni. They used eight career sponsorship items from Dreher and Ash's (1990) global mentoring scale. Interestingly, their results showed that the structural properties of social networks and the nature of the resources embedded in these networks were antecedent to the role of career sponsorship in explaining career success. That is, career sponsorship partially mediated the relationships between network properties and three measures of career success. We would encourage future researchers to consider in more detail the linkages between the functions of mentoring and the properties of protégés' social networks. These studies also should take into account the notion of a developmental network (Higgins & Kram, 2001). The establishment of networks of diverse developers and mentors would likely have a more powerful effect on the properties of protégés' social networks than would the establishment of a single or primary mentoring relationship.

Path-Goal Clarity

In addition to helping protégés develop job-related capability, organizational knowledge, and social networks, mentors may influence protégés' sense of

self-efficacy and other motivational states that could enhance career success. A study by Day and Allen (2004) is an excellent example of research that has considered the effects of career self-efficacy and career motivation on the relationships between mentoring functions and subjective and objective career outcomes. Additional research designs that consider the relationships between the various functions of mentoring and motivational states, such as self-efficacy, expectancy, and instrumentality perceptions, would enhance our understanding of this important mediating process. While the human capital path focuses on the development of enhanced capability, this path focuses on the motivation to aggressively pursue career objectives.

Values Clarity Path

By focusing on acceptance and confirmation, counseling, and friendship, mentoring relationships can provide the protégé with the opportunity to reflect on and make career and life choices within the context of guidance and feedback from a more experienced individual. According to Schulz (1995), protégés can use their mentors to test ideas about what constitutes realistic career goals and to think through whether a current employing organization can support these goals. In addition, discussions with mentors can prove useful when protégés attempt to clarify the centrality of work and career relative to other personal and family-oriented life goals. To the degree to which goal and value clarification contributes to making sound personal and career-oriented decisions, mentoring activities related to this path should contribute to life and career satisfaction. While some research has addressed criterion variables of the career satisfaction and career commitment variety (e.g., Aryee, Wyatt, & Stone, 1996; Collarelli & Bishop, 1990; Ragins, Cotton, & Miller, 2000), we know of no studies that have explicitly addressed the linkages between mentoring, value clarification and change, life planning, and life and career satisfaction.

Moderator Variables

Ramaswami and Dreher's model (in press) also proposes that key moderator variables must be taken into account if one is to understand which (if any) causal path is activated and whether or not a mentoring relationship is of sufficient quality to trigger proposed cognitive, affective, or behavior responses. They speculate that mentoring quality can be defined in terms of mentor attributes. Here, the focus is on aspects such as (a) mentor knowledge about organizational politics and culture, (b) mentor knowledge about protégés' chosen career paths, (c) mentor skill as a trainer and developer, (d) mentor motivation and opportunity to provide developmental assistance, and (e) mentor power and hierarchical position. We concur with their assessment and would like to add another likely key condition of mentoring quality. Here, high-quality mentoring is likely to be a function of the mentor's ability to accurately perceive what a protégé most needs and then being able to deliver protégé-specific developmental solutions. While this discussion suggests that these variables would be examined by introducing appropriate cross-product

terms when conducting data analyses, in reality, this class of variables represents yet another way of defining the mentoring construct.

We encourage researchers to devise ways of combining these dimensions of mentor attributes into overall measures of mentoring quality and then using these measures as the independent variables of interest. That is, low scores would represent no or very-low-quality mentoring, and high scores would represent mentoring relationships of the highest quality. The use of measures of mentoring quality (versus presence or absence of a mentor) should produce mentoring-career outcome effect sizes much larger than those reported in the literature to date.

Concluding Comments

In this chapter, our goal was to discuss "where we have been" in the study of mentoring and protégé career outcomes and to explore a variety of ideas about directions for future research. We first provided an overview of the results of research on mentoring and protégé subjective and objective career success, and a summary of key characteristics of these studies. There are some clear boundary conditions of this literature, in terms of samples, contexts, and variables studied. We next addressed conceptual issues, beginning with a survey of the wide variety of definitions of mentor and mentoring in the research literature, agreeing with other recent recommendations for an approach to defining mentoring that allows for capturing a broad range of developmental relationships, while also specifying the particular types of relationships being studied. We also emphasized the need to consider an expanded set of outcomes for protégés, especially extraorganizational functioning, and outcomes of mentoring for organizations. We then reviewed key methodological constraints in the literature, relating to internal validity, methods bias, and external validity, and underscored needed improvements in the methodologies of future studies. Finally, we emphasized that this literature is notably deficient in conceptualizing and investigating intermediate linkages in the relationship of mentoring with protégé career success, providing a number of ideas about the avenues by which a mentor can influence a protégé's career trajectory. Throughout the chapter, we have attempted to stimulate the reader's thinking about where we have been, where we need to go, and how we might get there in studying mentoring and its vital role for protégés' subjective and objective career success.

References

Allen, T. D., Eby, L. T., Poteet, M. L., Lentz, E., & Lima, L. (2004). Career benefits associated with mentoring for protégés: A meta-analysis. *Journal of Applied Psychology, 89*, 127–136.
Allen, T. D., Poteet, M. L., & Russell, J. E. A. (2000). Protégé selection by mentors: What makes the difference? *Journal of Organizational Behavior, 21*, 271–282.

Aryee, S., & Chay, Y. W. (1994). An examination of the impact of career-oriented mentoring on work commitment attitudes and career satisfaction among professional and managerial employees. *British Journal of Management*, 5, 241–249.

- Aryee, S., Lo, S., & Kang, I. L. (1999). Antecedents of early career stage mentoring among Chinese employees. *Journal of Organizational Behavior*, 20, 563–576.
- Aryee, S., Wyatt, T., & Stone, R. (1996). Early career outcomes of graduate employees: The effect of mentoring and ingratiation. *Journal of Management Studies*, *33*, 95–118.
- Barker, P., Monks, K., & Buckley, F. (1999). The role of mentoring in the career progression of chartered accountants. *British Accounting Review*, *31*, 297–312.
- Baugh, S. G., Lankau, M. J., & Scandura, T. A. (1996). An investigation of the effects of protégé gender on responses to mentoring. *Journal of Vocational Behavior*, 49, 309–323.
- Brett, J. M., & Stroh, L. K. (1997). Jumping ship: Who benefits from an external labor market career strategy? *Journal of Applied Psychology*, 82, 331–341.
- Burke, R. J., McKenna, C. S., & McKeen, C. A. (1991). How do mentorships differ from typical supervisory relationships? *Psychological Reports*, *68*, 459–466.
- Campbell, D. T., & Stanley, J. C. (1966). Experimental and quasi-experimental designs for research. Boston: Houghton-Mifflin.
- Chao, G. T., Walz, P. M., & Gardner, P. D. (1992). Formal and informal mentorships: A comparison of mentoring functions and contrast with nonmentored counterparts. *Personnel Psychology*, 45, 619–636.
- Colarelli, S. M., & Bishop, R. C. (1990). Career commitment: Functions, correlates, and management. *Group & Organization Studies*, 15, 158–176.
- Corzine, J. B., Buntzman, G. F., & Busch, E. T. (1994). Mentoring, downsizing, gender, and career outcomes. *Journal of Social Behavior and Personality*, 9, 517–528.
- Cox, T. H., & Nkomo, S. M. (1991). A race and gender-group analysis of the early career experience of MBAs. *Work and Occupations*, 18, 431–446.
- Crowne, D., & Marlowe, D. (1964). The approval motive: Studies in evaluative dependence. New York: John Wiley & Sons.
- Day, R., & Allen, T. D. (2004). The relationship between career motivation and self-efficacy with protégé career success. *Journal of Vocational Behavior*, 64, 72–91.
- Donaldson, S. I., Ensher, E. A., & Grant-Vallone, E. J. (2000). Longitudinal examination of mentoring relationships on organizational commitment and citizenship behavior. *Journal of Career Development*, 26, 233–249.
- Dougherty, T. W., Turban, D. B., & Haggard, D. L. (2005). *Definitional issues and implications in the study of naturally-occurring workplace mentoring*. Unpublished manuscript.
- Dreher, G. F., & Ash, R. A. (1990). A comparative study of mentoring among men and women in managerial, professional, and technical positions. *Journal of Applied Psychology, 75*, 539–546
- Dreher, G. F., & Chargois, J. A. (1998). Gender, mentoring experiences, and salary attainment among graduates of a historically Black university. *Journal of Vocational Behavior*, 53, 401–416.
- Dreher, G. F., & Cox, Jr., T. H. (1996). Race, gender and opportunity: A study of compensation attainment and the establishment of mentoring relationships. *Journal of Applied Psychology, 81*, 297–308.
- Dreher, G. F., & Cox, Jr., T. H. (2000). Labor market mobility and cash compensation: The moderating effects of race and gender. *Academy of Management Journal*, 43, 890–900.
- Eby, L. T., & McManus, S. E. (2002, April). Protégés' most positive mentoring experience. In R. Day & T. D. Allen (Cochairs), *Underlying processes responsible for beneficial mentor-ships: Implications of emerging research*. Annual Meeting of the Society for Industrial and Organizational Psychology, Toronto, Canada.
- Eby, L. T., McManus, S. E., Simon, S. A., & Russell, J. E. A. (2000). The protégé's perspective regarding negative mentoring experiences: The development of a taxonomy. *Journal of Vocational Behavior*, *57*, 1–21.

- Ensher, E. A., & Murphy, S. E. (1997). Effects of race, gender, perceived similarity, and contact on mentor relationships. *Journal of Vocational Behavior*, 50, 460–481.
- Ensher, E. A., Thomas, C., & Murphy, S. E. (2001). Comparison of traditional, step-ahead, and peer mentoring on protégés' support, satisfaction, and perceptions of career success: A social exchange perspective. *Journal of Business and Psychology*, 15, 415–438.
- Fagan, M. M., & Walter, G. (1982). Mentoring among teachers. *Journal of Educational Research*, 76(2), 115.
- Fagenson, E. A. (1988). The power of a mentor: Protégés' and non-protégés' perceptions of their own power in organizations. *Group & Organization Studies*, 13, 182–194.
- Fagenson, E. A. (1989). The mentor advantage: Perceived career/job experiences of protégés versus non-protégés. *Journal of Organizational Behavior*, 10, 309–320.
- Finkelstein, L. M., Allen, T. D., & Rhoton, L. (2003). An examination of the role of age in mentoring relationships. *Group & Organization Management*, 28, 249–281.
- Gaskill, L. R., & Sibley, L. R. (1990). Mentoring relationships for women in retailing: Prevalence, perceived importance, and characteristics. *Clothing and Textiles Research Journal*, 9(1), 1–10.
- Godshalk, V. M., & Sosik, J. J. (2000). Does mentor-protégé agreement on mentor leadership behavior influence the quality of a mentoring relationship? *Group & Organization Management*, 25, 291–317.
- Gonzalez-Figueroa, E., & Young, A. M. (2005). Ethnic identity and mentoring among Latinas in professional roles. *Cultural Diversity and Ethnic Minority Psychology*, 11, 213–226.
- Green, S. G., & Bauer, T. N. (1995). Supervisory mentoring by advisors: Relationships with doctoral student potential, productivity, and commitment. *Personnel Psychology*, 48, 537–561.
- Hall, D. T., & Mirvis, P. H. (1996). The new protean career: Psychological success and the path with a heart. In D. T. Hall & Associates (Eds.), *The career is dead—Long live the career: A relational approach to careers* (pp. 15–45). San Francisco: Jossey-Bass.
- Higgins, M. C., & Kram, K. E. (2001). Reconceptualizing mentoring at work: A developmental network perspective. *Academy of Management Review*, *26*, 264–288.
- Higgins, M. C., & Thomas, D. A. (2001). Constellations and careers: Toward understanding the effects of multiple developmental relationships. *Journal of Organizational Behavior*, 22, 223–247.
- Johnson, W. B., Lall, R., Holmes, E. K., Huwe, J. M., & Nordlund, M. D. (2001). Mentoring experiences among navy midshipmen. *Military Medicine*, 166, 27–31.
- Kirchmeyer, C. (1998). Determinants of managerial career success: Evidence and explanation of male/female differences. *Journal of Management*, 24, 673–692.
- Kirchmeyer, C. (2002). Change and stability in managers' gender roles. *Journal of Applied Psychology*, 87, 929–939.
- Kirchmeyer, C. (2005). The effects of mentoring on academic careers over time: Testing performance and political perspectives. *Human Relations*, 58, 637–660.
- Koberg, C. S., Boss, R. W., Chappell, D., & Ringer, R. C. (1994). Correlates and consequences of protégé mentoring in a large hospital. Group & Organization Management, 19, 219–239.
- Koberg, C. S., Boss, R. W., & Goodman, E. (1998). Factors and outcomes associated with mentoring among health-care professionals. *Journal of Vocational Behavior*, *53*, 58–72.
- Kram, K. E. (1985). Mentoring at work: Developmental relationships in organizational life. Glenview, IL: Scott, Foresman.
- Lam, S. K., & Dreher, G. F. (2004). Gender, extra-firm mobility, and compensation attainment in the United States and Hong Kong. *Journal of Organizational Behavior*, 25, 791–805.
- Mobley, G. M., Jaret, C., Marsh, K., & Lim, Y. Y. (1994). Mentoring, job satisfaction, gender, and the legal profession. *Sex Roles*, *31*, 79–98.

- Murphy, S. E., & Ensher, E. A. (2001). The role of mentoring support and self-management strategies on reported career outcomes. *Journal of Career Development*, 27, 229–246.
- Noe, R. A. (1988). An investigation of the determinants of successful assigned mentoring relationships. *Personnel Psychology*, 41, 457–479.
- Noe, R. A., Greenberger, D. B., & Wang, S. (2002). Mentoring: What we know and where we might go. *Research in Personnel and Human Resources Management*, 21, 129–173.
- Olian, J., Carroll, S., Giannantonio, C. M. (1993). Mentor reactions to protégés: An experiment with managers. *Journal of Vocational Behavior*, 43, 266–278.
- Orpen, C. (1995). The effects of mentoring on employees' career success. *Journal of Social Psychology*, 135, 667–668.
- Ostroff, C., & Kozlowski, S. W. (1993). The role of mentoring in the information gathering processes of newcomers during early organizational socialization. *Journal of Vocational Behavior*, 42, 170–183.
- Payne, S. C., & Huffman, A. H. (2005). A longitudinal examination of the influence of mentoring on organizational commitment and turnover. *Academy of Management Journal*, 48, 158–168.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879–903.
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12, 69–82.
- Prevosto, P. (2001). The effect of mentored relationships on satisfaction and intent to stay of company-grade U.S. Army reserve nurses. *Military Medicine*, 166, 21–26.
- Ragins, B. R. (1999). Where do we go from here and how do we get there? Methodological issues in conducting research on diversity and mentoring relationships. In A. Murrell, F. J. Crosby, & R. Ely (Eds.), Mentoring dilemmas: Developmental relationships within multicultural organizations (pp. 227–247). Mahwah, NJ: Lawrence Erlbaum.
- Ragins, B. R., & Cotton, J. L. (1999). Mentor functions and outcomes: A comparison of men and women in formal and informal mentoring relationships. *Journal of Applied Psychology*, 84, 529–550.
- Ragins, B. R., Cotton, J. L., & Miller, J. S. (2000). Marginal mentoring: The effects of type of mentor, quality of relationship, and program design on work and career attitudes. *Academy of Management Journal*, 43, 1177–1194.
- Ragins, B. R., & McFarlin, D. B. (1990). Perceptions of mentor roles in cross-gender mentor relationships. *Journal of Vocational Behavior*, *37*, 321–340.
- Ragins, B. R., & Verbos, A. K. (2007). Positive relationships in action: Relational mentoring and mentoring schemas in the workplace. In J. E. Dutton & B. R. Ragins (Eds.), Exploring positive relationships at work: Building a theoretical and research foundation (pp. 91–116). Mahwah, NJ: Lawrence Erlbaum.
- Ramaswami, A., & Dreher, G. F. (2007). The benefits associated with workplace mentoring relationships. In T. D. Allen & L. T. Eby (Eds.), *Blackwell handbook of mentoring: A multiple perspectives approach* (pp. 211–231). Malden, MA: Blackwell.
- Ramaswami, A., Huang, J., & Dreher, G. F. (2005, June). Career attainment among Taiwanese professionals: The role of mentoring and cultural values. Paper presented at the 8th Conference on International Human Resource Management, Cairns, Australia.
- Riley, S., & Wrench, D. (1985). Mentoring among women lawyers. Journal of Applied Social Psychology, 15, 374–386.
- Scandura, T. A. (1992). Mentorship and career mobility: An empirical investigation. *Journal of Organizational Behavior*, 13, 169–174.

- Scandura, T. A., & Schriesheim, C. A. (1994). Leader-member exchange and supervisor career mentoring as complementary constructs in leadership research. *Academy of Management Journal*, 37, 1588–1602.
- Scandura, T. A., & Williams, E. A. (2004). Mentoring and transformational leadership: The role of supervisory career mentoring. *Journal of Vocational Behavior*, 65, 448–468.
- Schulz, S. F. (1995). The benefits of mentoring. In M. W. Galbraith & N. H. Cohen (Eds.), Mentoring: New strategies and challenges (Vol. 66, pp. 57–68). San Francisco: Jossey-Bass.
- Seibert, S. (1999). The effectiveness of facilitated mentoring: A longitudinal quasiexperiment. *Journal of Vocational Behavior*, 54, 483–502.
- Seibert, S. E., Kraimer, M. L., & Liden, R. C. (2001). A social capital theory of career success. *Academy of Management Journal*, 44, 219–237.
- Sosik, J. J., & Godshalk, V. M. (2000). Leadership style, mentoring functions received, and job-related stress: A conceptual model and preliminary study. *Journal of Organizational Behavior*, 21, 365–390.
- Sosik, J. J., & Godshalk, V. M. (2004). Self-other rating agreement in mentoring: Meeting protégé expectations for development and career advancement. *Group & Organization Management*, 29, 442–469.
- Tepper, B. J. (1995). Upward maintenance tactics in supervisory mentoring and nonmentoring relationships. *Academy of Management Journal*, *38*, 1191–1205.
- Tharenou, P. (2005). Does mentor support increase women's career advancement more than men's? The differential effects of career and psychosocial support. *Australian Journal of Management*, 30, 77–110.
- Turban, D. B., & Dougherty, T. W. (1994). Role of protégé personality in receipt of mentoring and career success. *Academy of Management Journal*, *37*, 688–702.
- Wallace, J. E. (2001). The benefits of mentoring for female lawyers. *Journal of Vocational Behavior*, 58, 366–391.
- Wanberg, C. R., Welsh, E. T., & Hezlett, S. A. (2003). Mentoring research: A review and dynamic process model. Research in Personnel and Human Resources Management, 22, 39–124.
- Waters, L., McCabe, M., Kiellerup, D., & Kiellerup, S. (2002). The role of formal mentoring on business success and self-esteem in participants of a new business start-up program. *Journal of Business and Psychology, 17,* 107–121.
- Wayne, S. J., Liden, R. C., Kraimer, M. L., & Graf, I. K. (1999). The role of human capital, motivation, and supervisor sponsorship in predicting career success. *Journal of Organizational Behavior*, 20, 577–595.
- Whitely, W. T., & Coetsier, P. (1993). The relationship of career mentoring to early career outcomes. *Organization Studies*, 14, 419–441.
- Whitely, W., Dougherty, T. W., & Dreher, G. F. (1991). Relationship of career mentoring and socioeconomic origin to managers' and professionals' early career progress. *Academy of Management Journal*, 34, 331–351.