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What do mentors learn? The role of mentor and protégé role behavior and relationship quality in mentor learning

Stacy L. Astrove
University of Iowa

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WHAT DO MENTORS LEARN? THE ROLE OF MENTOR AND PROTÉGÉ ROLE
BEHAVIOR AND RELATIONSHIP QUALITY IN MENTOR LEARNING

by

Stacy L. Astrove

A thesis submitted in partial fulfillment
of the requirements for the Doctor of Philosophy
degree in Business Administration
(Management and Organizations) in the
Graduate College of
The University of Iowa

August 2017

Thesis Supervisor: Professor Maria L. Kraimer

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Graduate College
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CERTIFICATE OF APPROVAL

PH.D. THESIS

This is to certify that the Ph.D. thesis of

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ABSTRACT

Mentoring is defined as a reciprocal relationship between a less experienced individual (protégé) and a more experienced individual (mentor) that has consistent, regular contact over a period of time and is intended to promote mutual growth, learning, and development within the career context (Haggard, Dougherty, Turban & Wilbanks, 2011; Kram, 1985; Ragins & Kram, 2007). Inherent in this definition of mentoring is that individuals learn, develop, and grow from their mentoring interactions. Despite this, limited research explores the learning that occurs from mentoring relationships. The purpose of this study is to examine what mentors learn from mentoring experiences and how these experiences relate to mentor outcomes. The outcomes include mentoring self-efficacy, mentor behavioral change intentions, and mentor learning. I draw on the relational mentoring perspective (Ragins, 2012) and social learning theory (Bandura, 1971, 1977) to ground my hypotheses. My hypothesized model addresses three broad research questions: 1) What do mentors learn from their experiences with their protégés? 2) How do mentoring experiences relate to learning? and 3) Under what conditions do mentoring experiences relate to learning?

I conducted a mixed methods study in an academic setting. My population included professors in North American doctoral granting universities and the PhD students they mentored. After identifying interested professors (mentors), I asked mentors to send study information to their PhD students (protégés). Both quantitative and qualitative data were collected via electronic survey. Surveys were time-lagged with three waves over a four month period.

I found that mentors gained mentoring-specific, occupational-specific, and relational knowledge from mentoring their protégés. Additionally, mentors identified specific changes they wished to make to their mentoring behavior from their experiences with their protégés. I found that protégé positive role behavior and mentor positive psychosocial behavior were directly and positively related to career mentoring self-efficacy. Mentor positive career behavior was positively related to behavioral change intentions and protégé positive role behavior was positively related to relationship quality. I found that relationship quality did not mediate the relationship between role behaviors and mentor learning outcomes. Finally, I did not find support for the moderating effects of internal attribution for relationship quality, growth mindset, and feedback seeking.

This study makes four specific contributions to the management field. First, research in mentoring often confounds relationship quality with behavior (e.g., Eby, Butts, Lockwood, & Simon, 2004; Eby, Durley, Evans, & Ragins, 2008) and outcomes (e.g., Eby, Butts, Durley, & Ragins, 2010; Ragins, 2012). By studying role behaviors, relationship quality, and mentor learning outcomes as distinct constructs, I provide clarity and an avenue for future mentoring research. Second, this study contributes to the mentoring literature by demonstrating what and how mentors learn from mentoring experiences. A significant contribution of this study is the identification of three types of mentor learning and behavioral change intentions. Third, I examined the theoretical explanation for mentoring role behaviors and mentor learning outcomes. Whereas I found that relationship quality did not explain the relationship between role behaviors and mentor learning, leader-member exchange provides a promising avenue for future

research. Finally, I introduced mentoring self-efficacy as an important outcome of positive mentoring relationships, with mentors experiencing increased self-efficacy through positive experiences with their protégés.

PUBLIC ABSTRACT

The goal of my study was to determine what mentors learn from mentoring their protégés in the workplace. I sampled professor mentors and their PhD student protégés from North American doctoral granting universities. Using a time-lagged study with three waves over a four month period, I gathered both quantitative and qualitative responses from participants. I found that mentors' perceptions of their protégés' positive mentoring behavior (i.e., asking for and heeding mentor advice, asking for projects that aid in development) were positively related to mentors' overall affective assessment of the relationship (i.e., relationship quality). Mentors' assessments of protégé positive mentoring behavior also increased mentors' perceived competence and efficacy in providing career-related mentoring functions such as providing career guidance. Protégés' assessments of the extent to which their mentors provided career-related support was positively related to mentors' perceived competence in providing career-related mentoring functions and the extent to which mentors planned to make changes to their mentoring behaviors in the future.

Additionally, I found that mentors learned from their experiences with their protégés. Mentors reported gaining mentoring-specific, occupational-specific, and relational knowledge. Mentors also reported wanting to make several changes in their future and current mentoring relationships. These changes included establishing clear guidelines and monitoring progress, changing their feedback approach, listening and identifying protégé needs and adapting to these needs, and selecting future protégés more carefully.

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CHAPTER I. INTRODUCTION

“Much I have learned from my teachers, more from my colleagues, but most from my students.” – R. Hanina, Talmud: Taanit, 7a

“The best experiences are all about learning, the student learns from the mentor, but the mentor also learns a lot from the student.” – Participant #4574

Practitioners increasingly recognize the value of mentoring for their employees, with organizations like the United States Air Force, John Deere, Procter and Gamble, and General Electric investing heavily in the development of their mentoring programs (Economy, 2001; Greengaard, 2002; Kwoh, 2011). While the concept of mentoring dates back to Homer’s *Odyssey*, where Mentor delivers support, guidance, and protection to Odysseus’s son, academic research on workplace mentoring began with Levinson, Darrow, Klein, Levinson, and Mckee’s (1978) and Kram’s (1983, 1985) seminal research introducing mentoring as an important vocational and personal resource for both protégés and mentors. From these initial works, research on mentoring has demonstrated positive vocational and personal benefits for protégés. Although there is some controversy regarding causality, protégés who were mentored typically had higher salaries and were more likely to believe they would advance in their careers than nonmentored individuals. Additionally, mentored individuals had higher job and career satisfaction, greater organizational commitment, were less likely to leave the organization, and had greater job performance (Allen, Eby, Poteet, Lentz, & Lima, 2004; Kammeyer-Mueller & Judge, 2008; Underhill, 2006). Outside the work context, mentoring negatively related to drug use, psychological stress and strain, and was positively associated with enhanced self-perceptions and interpersonal relations (Eby, Allen, Evans, Ng, & DuBois, 2008). In

general, mentoring research has focused heavily on the benefits of mentoring for protégés (Haggard, Dougherty, Turban, & Wilbanks, 2011).

At the same time, the early research (e.g., Clawson, 1996; Hunt & Michael, 1983; Kram, 1983; 1985; Levinson et al., 1978) suggested that mentoring relationships are reciprocal, with both protégés and mentors benefitting from the relationship. But it is only in the last couple decades that research has focused on the mentor's perspective. This research has primarily focused on predictors of mentor's willingness to mentor, with research on protégé selection, mentor characteristics and motivation, relationship characteristics, and mentor outcomes emerging later (Allen, 2007; Haggard et al., 2011). In terms of mentor outcomes, mentoring is associated with increased subjective and objective career success (Allen, Lentz, & Day, 2006; Bozionelos, 2004; Collins, 1994), job performance, job satisfaction, organizational commitment, and decreased intentions to quit the organization (Eby, Durley, Evans, & Ragins, 2006; Lentz & Allen, 2009). Recent research has also identified additional attributes of mentoring relationships, including the need for a reciprocal relationship between mentors and protégés and regular, consistent contact, which can be beneficial for both parties (i.e., learning partnership; Haggard et al., 2011). Preliminary research has demonstrated that mentors learn from mentoring relationships (e.g., Allen & Eby, 2003; Dymock, 1999; Mullen & Noe, 1999), but to date, little research has focused on defining mentor learning or identifying the theoretical explanations detailing how mentoring experiences relate to different types of mentor learning.

While the benefits of mentoring are wide-reaching for both protégés and mentors, some research has focused on the dark side of mentoring relationships for both protégés

and mentors (Eby, 2007). Negative and marginal mentoring experiences from the protégé perspective have been shown to be related to lower job satisfaction among protégés and positively related to turnover intentions and stress (Eby & Allen, 2002; Ragins, Cotton, & Miller, 2000; Ragins & Scandura, 1997). Mentors also encounter negative mentoring experiences when dealing with their protégés (Allen, Poteet, & Burroughs, 1997; Eby & Lockwood, 2005; Eby & McManus, 2004). Negative mentoring can derail otherwise effective mentors, resulting in greater intentions to leave mentoring relationships, decreased relationship satisfaction, and increased mentor burnout (Eby, Durley, Evans, & Ragins, 2008). Although recent research has worked to understand and establish the negative mentoring constructs from both the protégé's and mentor's perspectives, only a few empirical studies focus on mentors' outcomes of negative mentoring experiences (e.g., Eby, Butts, Durley, & Ragins, 2010; Eby, Durley, et al., 2008; Eby & McManus, 2004). Additionally, further research is needed to identify theoretically-relevant boundary conditions and explanations for the relationships between negative mentoring experiences and outcomes.

For the purposes of this dissertation, I use multiple sources (e.g., Haggard et al., 2011; Kram, 1985; Ragins & Kram, 2007) to define *mentoring as a reciprocal relationship between a less experienced individual (i.e., protégé) and a more experienced individual (i.e., mentor) that has consistent, regular contact over a period of time and is intended to promote mutual growth, learning, and development within the career context.* Inherent in this definition of mentoring is that individuals may learn, develop, and grow from their mentoring interactions. Despite this, limited research explores the learning that occurs from mentoring relationships.

In an effort to understand how mentoring experiences lead to mentor learning, I will use a relational mentoring perspective (Ragins, 2012) and social learning theory (SLT) to ground my hypotheses (Bandura, 1971). The relational mentoring perspective suggests that mentoring relationships range in quality from low- to high-quality, with traditional mentoring relationships considered average-quality (Ragins, 2012; Ragins & Verbos, 2007). *Relationship quality* is defined as an affective assessment of the overall state of the relationship (Eby, Butts, Durley, & Ragins, 2010; Humberd & Rouse, 2015). This framework introduces *relational mentoring*, which is a high-quality form of mentoring, defined as an “interdependent and generative developmental relationship that promotes mutual growth, learning and development within the career context” (Ragins, 2012, p. 519). High-quality (i.e., relational) mentoring relationships primarily result from positive experiences or behaviors within the mentoring relationship while low-quality (i.e., dysfunctional) relationships primarily result from negative experiences or behaviors (Chandler, Kram, & Yip, 2011; Fletcher & Ragins, 2007; Ragins & Verbos, 2007). Although this perspective highlights the importance of exploring the full range of mentoring experiences, relationship quality is often confounded with behavior (e.g., Eby, Butts, Lockwood, & Simon, 2004) and outcomes (e.g., Eby, Durley, et al., 2008; Humberd & Rouse, 2015; Ragins; 2012). Therefore, it is critical to tease out the differences between mentor and protégé behaviors, relationship quality, and outcomes to determine how these behaviors affect relationship quality and how relationship quality affects mentor outcomes.

Furthermore, relational mentoring theory suggests that mutual learning is most likely to result from high-quality mentoring relationships, however, I expect that low-

quality mentoring relationships also provide an opportunity for mentor learning. As such, I pull from SLT to suggest that low-quality mentoring relationships will also lead to mentor learning. SLT suggests that both direct and vicarious experience serve as important avenues for learning (Bandura, 1969, 1971). Learning from direct experience occurs when individuals make connections between their actions and the results of their actions whereas learning from vicarious experience occurs by observing the consequences of the actions and decisions of others. In the context of this study, I posit that mentors acquire knowledge through both direct and vicarious experience, with direct experience including the experience of mentoring their protégés and vicarious experience including observations of their protégés' behaviors and the consequences that protégés encounter as a result of their behaviors. *Protégé positive role behavior* is defined as mentor assessments of the extent to which the protégé actively engages in career and social behaviors typical of a protégé, such as paying attention to mentor advice, demonstrating sincere gratitude for the mentor's efforts, and engaging in self-improvement efforts (Eby, Durley, et al., 2008; Kram, 1985; Young & Perrewé, 2000). *Protégé negative role behavior* is defined as mentor evaluations of protégé unsatisfactory or disappointing behaviors such as performance problems, interpersonal problems, and destructive relational patterns (Eby, Durley, et al., 2008; Eby & McManus, 2004). Additionally, protégé assessments of mentor positive and negative role behavior are included as antecedents to relationship quality. *Mentor positive role behavior* is defined as protégé evaluations of the extent to which the mentor provides career and psychosocial support. *Mentor negative role behavior* is defined as the protégé's evaluation of unsatisfactory or disappointing mentoring behaviors.

Thus, the purpose of this study is to examine what mentors learn from positive and negative mentoring experiences and how these experiences relate to mentor learning. I draw on the relational mentoring perspective (Ragins, 2012) and SLT (Bandura, 1969, 1971) to demonstrate what, how, and when mentors learn from mentoring experiences. In my model, I propose that mentor perceptions of protégé positive role behavior and protégé perceptions of mentor positive role behavior are positively related to relationship quality. Mentor perceptions of protégé negative role behavior and protégé perceptions of mentor negative role behavior are negatively related to relationship quality. Relationship quality is positively related to mentoring self-efficacy (i.e., perceived capabilities of the mentor to effectively execute career and psychosocial support functions) and negatively related to mentor behavioral change intentions (i.e., mentors' motives to change the way they act or achieve results) and mentor learning (i.e., acquisition of knowledge, skills, or competencies important for personal development). Finally, I will examine mentors' internal attribution for relationship quality (i.e., extent to which the mentor sees him/herself as responsible for relationship quality), growth mindset (i.e., extent to which mentors believe they can change their own mentoring ability), and feedback seeking (i.e., effort directed at determining adequacy of behavior) as critical boundary conditions for the relationship between relationship quality and mentor learning outcomes.

In short, in my dissertation, I will answer three broad research questions:

- 1) What do mentors learn from their mentoring experiences?
- 2) How do mentoring experiences relate to learning?
- 3) Under what conditions do mentoring experiences relate to learning?

In the proposed study, I seek to make four specific contributions. First, research in mentoring often confounds relationship quality with behavior (e.g., Eby et al., 2004; Eby, Durley, et al., 2008) and outcomes (e.g., Eby et al., 2010; Ragins, 2012). For example, Humberd and Rouse (2015) defined dysfunctional (low-quality), traditional (average), and relational (high-quality) mentoring relationships in terms of the behaviors that impact relationships and the outcomes that result from the overall quality of the relationship (i.e., bullying or sabotaging, psychosocial and career support, and mutual growth and development, respectively). By studying role behaviors, relationship quality, and mentor learning outcomes as distinct constructs, I will provide construct clarity and lay the conceptual groundwork for future mentoring research.

Second, I will contribute to the mentoring literature by demonstrating how and what mentors learn from mentoring experiences. Although the concept of mentoring inherently implies that individuals (both protégés and mentors) learn from mentoring, only a few studies empirically test whether or not this is actually the case. By integrating SLT with a relational mentoring perspective, I will explore how positive and negative mentoring experiences and relationship quality relate to different learning outcomes.

Third, I will contribute to the negative mentoring literature by exploring outcomes of negative mentoring experiences from the mentor perspective. While a few studies focus on adverse outcomes of negative mentoring experiences for the mentor (e.g., Eby, Durley, et al., 2008; Eby et al., 2010; Eby & McManus, 2004; Eby & Lockwood, 2005), I suggest that mentors can obtain positive outcomes in the form of mentor behavioral change intentions and mentor learning.

Finally, multiple mentoring researchers have called for research promoting understanding of theoretical explanations for the effects of mentoring and boundary conditions of these relationships (e.g., Chandler et al., 2011; Eby & Allen, 2007; Ragins & Kram, 2007; Ramaswami & Dreher, 2007). The proposed study fulfills this need in the mentoring literature by testing a moderated-mediation model of mentor learning. I propose relationship quality as a mediating variable, with internal attribution for relationship quality, growth mindset, and feedback seeking serving as second-stage moderators.

In sum, the aim of this study is to examine what mentors learn from mentoring experiences and how these experiences relate to mentor learning. The following chapter provides an overview of the mentoring literature and my exploratory pilot study. Chapter 3 introduces the relational mentoring framework and SLT to develop the hypotheses in detail. Chapter 4 details the method and results for my scale validation study. Chapter 5 outlines my primary study methods. Chapter 6 describes my primary study analysis and results. Finally, my discussion is included in Chapter 7, with theoretical and practical implications, limitations, and future research directions. All interview protocols, scale items, and coding procedures are included in the Appendices.

CHAPTER II. LITERATURE REVIEW AND PILOT STUDY

Introduction

In this chapter, I first provide a brief history and overview of the mentoring literature, including definitions and research trends. Because most research has focused on mentoring from the protégé's perspective, I then provide a short overview of research from the protégé perspective, focusing in more detail on protégé learning outcomes and negative mentoring experiences. After reviewing the protégé literature, I provide a detailed review from the mentor perspective, including a table outlining the major research streams. From this review, I outline research on mentor learning and the relational state of mentoring and negative mentoring experiences from the mentor perspective. At the conclusion of my literature review, I introduce my exploratory pilot study which examines mentor reactions to disappointing decisions made by protégés. The purpose of this study is to further identify research questions for my dissertation related to negative mentoring experiences from the mentor perspective. Finally, I summarize and integrate the current state of the mentoring literature with the results of my pilot study, explaining how my study will fill critical gaps and contribute to the mentoring literature.

Mentoring Research

The concept of mentoring originated from Homer's *Odyssey*, where Mentor provided support, guidance, and protection to Odysseus's son, Telemachus, when Odysseus sailed to Troy (Ragins & Kram, 2007). From this idea, Levinson and colleagues (1978) introduced the potential value of a mentor in the career development of men. Shortly after this introduction of mentoring into the career development of men, Kram's (1985) seminal book provided the theoretical groundwork for future workplace

mentoring research. The mentoring literature has since expanded into a significant stream of research highlighting the importance of mentoring for career growth (Chandler et al., 2011; Ragins & Kram, 2007).

Mentoring has classically been defined as “a relationship between a young adult and an older, more experienced adult that helps the younger individual learn to navigate in the adult world of work” (Kram, 1985, p. 2), with multiple iterations of this definition stemming from this original definition. Recently, Haggard and colleagues (2011) sought to clarify the definition of mentoring. They concluded that although a comprehensive definition of mentoring does not exist, they proposed three fundamental attributes of mentoring: reciprocity, developmental benefits, and regular/consistent interaction. These elements differentiate mentoring from other types of interpersonal work relationships.

Reciprocity, the first attribute, requires that mentoring relationships include social exchange, making them more than a one-way relationship. This attribute eliminates CEOs, coaches, and teachers as mentors due to the lack of reciprocity. The second attribute, developmental benefits, requires that the relationship produces benefits to protégés’ work and/or career. This attribute recognizes that mentors can also benefit from mentoring relationships, describing mentoring as a “learning partnership” (p. 293). Finally, the third attribute requires regular and consistent interaction between the mentor and protégé, generally for a longer period of time than most coaching or advising relationships.

More generally, Ragins and Kram (2007) argued that the core feature that distinguishes mentoring from other interpersonal relationships is that “mentoring is a developmental relationship that is embedded within the career context” (p. 5). For the

purposes of this dissertation, I pull from these researchers to define *mentoring* as a *reciprocal relationship between a less experienced individual (i.e., protégé) and a more experienced individual (i.e., mentor) that has consistent, regular contact over a period of time and is intended to promote mutual growth, learning, and development within the career context.*

Kram's (1985) early work on mentoring identified career and psychosocial functions as the two main mentoring functions. Career functions (i.e., vocational guidance) include sponsorship, coaching, protection, exposure and visibility, and other aspects of the mentoring relationship that help the protégé learn organizational processes and prepare them for advancement. Psychosocial functions (i.e., social support) include role modeling, acceptance and confirmation, counseling, friendship and refer to the aspects of the relationship that improve protégé competence, identity, and effectiveness both in and outside of the organization (Kram, 1985; Scandura, 1992). The role modeling function has also been described as both a psychosocial function and a distinct third mentoring function, defined as a "mentor's influence by being someone the protégé wishes to be like" (Scandura, 1992, p. 171). Mentoring relationships can be either formal or informal, with formal relationships assigned through mentoring programs and informal relationships arising more spontaneously (Chao, Walz, & Gardner, 1992).

Haggard and colleagues (2011) identified five significant research trends in the mentoring literature from 1980 to 2009. The initial trend in mentoring research focused on establishing the construct of mentoring and the key attributes or dimensions while exploring the benefits of the mentoring relationship to protégés. Some of the earliest research (e.g., Ragins, 1989; Noe, 1988) suggested that difficulty obtaining a mentor and

quality of mentoring received were potential explanations for career differences between men and women. As mentoring research grew, a second trend related to protégé personality, multiple mentoring, mentor perspective, and the dyadic perspective of the mentoring relationship (e.g., gender and racial composition of dyads) developed. The third trend in mentoring research focused on the phases of mentoring, along with the termination of mentoring relationships, the role of mentor gender and status in protégé salary, and further exploration of protégé personal, work, and psychological outcomes. The fourth trend began to look at mentor and protégé negative experiences, mentor choice and selection of protégé, and the quality of relationships. The most recent trend of mentoring research focuses on successful mentoring program characteristics, mediators of the mentoring and protégé outcome relationships, and new forms of mentoring (e.g., peer mentoring and e-mentoring). Despite these varying trends, the vast majority of research continues to focus on the benefits of mentoring to the protégé (Allen, 2007; Haggard et al., 2011).

Overview of Protégé Perspective Research

Mentoring provides positive vocational and personal benefits for protégés. Protégés who were mentored typically had higher salaries, more promotions, were more satisfied and committed to their careers, and were more likely to believe they would advance in their careers than nonmentored individuals. Additionally, mentored individuals were more satisfied with their jobs, less likely to leave the organization, and had greater job performance (Allen et al., 2004; Kammeyer-Mueller & Judge, 2008; Underhill, 2006). Career-related mentoring was positively associated with compensation, salary growth, promotions, performance, and career, job, and mentor satisfaction.

Similarly, psychosocial mentoring was positively related to compensation, promotions, intentions to remain with the organization, performance, and career, job, and mentor satisfaction (Allen et al., 2004; Kammeyer-Mueller & Judge, 2008). While both career and psychosocial mentoring had positive benefits for protégés, career mentoring had stronger relationships with some objective measures of career success, such as compensation and promotions, than psychosocial mentoring. Psychosocial mentoring had a stronger relationship with satisfaction with mentor than career mentoring. Overall, career and psychosocial mentoring had similar relationships with career and job satisfaction (Allen et al., 2004). Outside the work context, mentoring was negatively related to drug use, less psychological stress and strain, and positively associated with enhanced self-perceptions and interpersonal relations (Eby, Allen, et al., 2008). Overall, mentoring has demonstrated many positive personal and professional benefits for protégés.

Protégé learning. In addition to professional and personal benefits of mentoring for protégés, mentoring is assumed to foster protégé learning. Despite this common assumption, little research explores the role of learning in mentoring, with many researchers taking for granted that mentoring results in learning outcomes (Lankau & Scandura, 2007). Many review articles and chapters highlight the need for further examination of the role of learning in mentor relationships (e.g., Haggard et al., 2011; Kram & Hall, 1996; Lankau & Scandura, 2007; Swap, Leonard, & Mimi Shields, 2001; Wanberg, Welsh, & Hezlett, 2003). Preliminary research on learning from mentoring focuses on its use as a tool to aid in newcomer socialization (e.g., Allen, McManus, & Russell, 1999; Chao et al., 1992; Ostroff & Kozloski, 1993), and to help protégés adapt to

organizational change (e.g., Siegel & Omer, 1995). These research streams approach learning as the acquisition of organizational, technical, and job-related skills. Beyond learning as a forum for gaining work-related knowledge, researchers have identified the importance of exploring personal learning in mentoring relationships (e.g., Kram, 1996; Lankau & Scandura, 2002). *Personal learning* is defined as acquiring knowledge, skills, or competencies that are important for the protégé's personal development (e.g., self-reflection, self-disclosure, active listening, empathy, and feedback; Kram, 1996).

In their article on personal learning in mentoring relationships, Lankau and Scandura (2002) developed and validated a measure for two different functions of personal learning: relational job learning and personal skill development. Relational job learning was defined as “increased understanding about the interdependence or connectedness of one's job to others” while personal skill development was defined as the “acquisition of new skills and abilities that enable better working relationships” (p.780). Personal skill development includes improving skills related to communication, listening, problem solving, and relationship development. Psychosocial, career, and role modeling support were all positively related to both relational job learning and personal skill development. Furthermore, relational job learning mediated the negative relationship between vocational support and role ambiguity and the positive relationship between vocational support and job satisfaction. Personal skill development mediated the positive relationship between role modeling and job satisfaction. Overall, the authors demonstrated that protégés learn skills beyond task and technical knowledge from their mentoring experiences.

Since Lankau and Scandura's (2002) article on personal learning, surprisingly few researchers have delved further into the construct. One exception is Hirschfeld, Thomas, and Lankau's (2006) study, which explored how achievement and avoidance orientations of both protégés and mentors affected personal learning in both parties. Achievement orientation is an individual's tendency to want to be involved in and overcome challenging situations while avoidance orientation is an individual's tendency to avoid situations that might result in negative outcomes and judgments. They found that protégé's achievement orientation positively related to both mentor and protégé personal learning, but that protégé's avoidance orientation negatively related only to mentor personal learning (Hirschfeld et al., 2006). Another exception is Liu and Fu's (2011) study examining protégé personal learning in teams. They found that an autonomy-supportive team climate, mentors' autonomy support, and protégés' autonomy orientation were each positively related to protégés' personal learning in teams.

Negative mentoring experiences from the protégé perspective. While most research demonstrates that mentoring positively benefits protégés (Scandura, 1998), early research recognizes that mentoring relationships can have both good and bad aspects (e.g., Levinson et al., 1978), and some research has focused on the negative side. Negative or dysfunctional mentoring relationships are defined as close, personal, work relationships that are ineffective for one or both of the parties (Scandura, 1998). Eby (2007) expanded this definition to include mentoring relational problems, or "real or perceived costs aspects of mentor-protégé interactions that minimize, negate, or undermine the personal and professional growth of one or both members" (p. 324). These problems can be mapped along a continuum ranging from low severity (e.g., poor job

performance) to moderate severity (e.g., mismatches in personality, values, or work styles) to high severity (e.g., sabotage or exploitation). This definition recognizes that mentoring relationships are often not inherently “good” or “bad” but can range in severity depending on the situation.

Limited research tests these models of dysfunctional mentoring. In a content analysis of protégés’ negative experiences, Eby, McManus, Simon, and Russell (2000) developed a taxonomy of negative mentoring experiences. They concluded that the most common mentoring problems included having a mismatch in values, personalities, and workstyles, mentor neglect or lack of interest in behavior, mentor manipulation, mentor engagement in self-interested political behavior, mentor poor technical and interpersonal skills, and personal problems (e.g., divorce) interfering with the mentor’s ability to mentor. Building off Eby et al.’s (2000) content analysis, Eby and colleagues (2004) conducted two studies to validate a measure of negative mentoring experiences from the protégé perspective and to test the relationship between negative mentoring experiences and protégé outcomes. They found support for five dimensions of negative mentoring experiences, including 1) mismatch within the dyad (i.e., incongruent values, styles, and personality), 2) distancing behavior (i.e., mentor neglect and self-absorption), 3) manipulative behavior (i.e., mentor abuse of power, taking credit for protégé’s work, and mentor dishonesty), 4) lack of mentor expertise (i.e., inadequate mentor interpersonal and technical skills), and 5) general dysfunctionality (i.e., mentor negative attitudes and personal problems). The authors found that mentor distancing behavior and lack of mentor expertise was more prevalent in the separation phase of mentoring relationships than the other phases. Negative mentoring experiences were negatively related to social

exchange perceptions and positively related to intentions to leave the relationship and psychological withdrawal. Additionally, they found that negative mentoring experiences were distinct from positive mentoring experiences and explained variance in protégé outcomes beyond positive mentoring experiences. Their findings support the idea that negative mentoring experiences are more than just the absence of mentoring support.

Other research focuses on the impact of negative mentoring experiences on protégés. As proposed by Scandura (1998), negative mentoring experiences generally result in unfavorable outcomes for protégés. For example, Ragins and Scandura (1997) found that relationships terminated for several different reasons, including mentor jealousy, mentor dependency on protégé, mentor lack of support, and unrealistic mentor expectations. Ragins et al. (2000) found that marginal mentoring, or a mentoring relationship that does not meet protégé developmental needs (i.e., marginally satisfying or dissatisfying), was related to protégés' lower job satisfaction and promotional opportunities, organizational-based self-esteem, procedural justice, and higher intentions to quit. Finally, Eby and Allen (2002) found that negative mentoring experiences were negatively related to job satisfaction and positively related to turnover intentions and stress.

More recent research compares the impact of negative versus positive experiences on the overall mentoring relationship. Eby et al. (2010) found that negative mentoring experiences explained more of the variance than good mentoring experiences in intentions to stay in the mentoring relationship, psychological withdrawal, and depressed mood at work. Their results suggest that bad mentoring experiences have a larger impact on protégés than good experiences.

Summary of protégé research. The majority of research on mentoring focuses on the protégé perspective with mentoring generally resulting in positive outcomes for protégés. More research is needed to explore how protégés learn from mentoring and how protégés cope with negative mentoring experiences.

Overview of Mentor Perspective Research

Early research (e.g., Clawson, 1980; Hunt & Michael, 1983; Kram, 1983; 1985; Levinson et al., 1978) suggests that mentoring relationships are reciprocal, with both protégés and mentors benefitting from the relationship, however, it took several years for research examining the mentor perspective to gain popularity (Haggard et al., 2011). Research on the mentor perspective began in the early 1990s, and despite an increasing number of studies focused on the mentor perspective, there is still a need to further examine how mentors are affected by mentoring. Initial research on the mentor perspective focuses on willingness to mentor, with research on protégé selection, mentor characteristics, motivation, relationship characteristics, and mentor outcomes emerging later (Allen, 2007; Haggard et al., 2011). In the coming paragraphs I review much of this research, with Table 1 providing an outline of the empirical research from the mentor perspective.

A large amount of research on the mentor perspective has focused on willingness to mentor others or future mentoring intentions (Allen, 2007). Factors such as gender and age (e.g., Allen, Poteet, Russell, & Dobbins, 1997; Ragins & Cotton, 1993; Ragins & Scandura, 1994), previous mentoring experience (Allen, 2003; Allen, Poteet, & Burroughs, 1997; Ragins & Cotton, 1993; Ragins & Scandura, 1999), dispositional and motivational characteristics (e.g., Allen, Poteet, Russell et al., 1997; Aryee, Chay, &

Chew, 1996), situational characteristics (e.g., Aryee et al., 1996), and expected costs and benefits (e.g., Ragins & Scandura, 1999) have been examined as antecedents to willingness to mentor. Overall, researchers have found that previous mentoring experience, internal locus of control, quality of relationship with supervisor, education, other-oriented empathy, and helpfulness are all associated with an increased willingness to mentor. Gender differences were not found to affect willingness to mentor.

Another stream of research on the mentor perspective focuses on mentors' selection of protégés. Researchers have explored individual differences such as gender and personality of the protégé (e.g., Allen, 2004; Allen, Poteet, & Burroughs, 1997; Allen, Poteet, & Russell, 2000; Olian, Carroll, & Giannantonio, 1993), protégé ability and performance (Allen, 2004; Allen et al., 2000; Kram, 1985; Olian, Carroll, & Giannantonio, 1993), and protégé motivation and willingness to learn (Allen, 2004; Allen, Poteet, & Burroughs, 1997). Overall, mentors consider demographic, motivational, and personality variables when selecting their protégés. Mentors typically look for protégés who have the potential to be high performers and are willing to learn (Allen, 2007). While research has not found an expressed preference for protégés of the same gender, same-gender mentoring relationships are more prevalent than cross-gender mentoring relationships in empirical studies.

Research has also examined mentor factors that affect the effectiveness of the mentoring relationship (i.e., extent to which mentoring functions occur in a relationship). These include mentor characteristics (e.g., gender, previous mentoring experience, and personality; Allen, 2003; Allen & Eby, 2004; Burke, McKeen, & McKenna, 1993; Fagenson-Eland, Marks, & Amendola, 1997; Lankau, Riordan, & Thomas, 2005; Mullen,

1998), motives for mentoring (e.g., Allen, 2004; Allen, Poteet, & Burroughs, 1997; Janssen, van Vuuren, & de Jong, 2014), and relationship characteristics (e.g., interaction frequency, informal versus formal, relationship duration, and perceived similarity; Allen, Eby, & Lentz, 2006; Burke et al., 1993; Ensher & Murphy, 1997; Fagenson-Eland et al., 1997; Lankau et al., 2005; Mullen, 1998). Previous research demonstrates that previous mentoring experience, interaction frequency, and duration of relationship positively related to the amount of career and psychosocial support mentors provide to their protégés, with mixed results for gender differences.

Finally, a few studies have focused on the outcomes of mentoring for mentors. In general, mentoring has demonstrated important objective and subjective career benefits for mentors, with individuals who mentor receiving higher salaries, promotions, and having increased career satisfaction (Allen et al., 2006; Bozionelos, 2004; Collins, 1994; Zey, 1984). Other benefits of mentoring include improved job attitudes (e.g., Lentz & Allen, 2005) and intrinsic satisfaction (Allen, Poteet, & Burroughs, 1997).

Mentor learning. Additionally, mentoring has been identified as an avenue for mentor learning. Dating back to Levinson and colleagues' seminal work (1978), mentors have been identified as potential co-learners in the mentoring relationship. Mentoring has been identified as a way for mentors to rejuvenate potentially stagnating career development. Additionally, mentoring has been identified as a means of reappraising the self with mentors growing and developing themselves alongside their protégés (Kram, 1983; 1985; 1996). Some researchers (e.g., Greengaard, 2002; Harvey & Buckley, 2002; Marcinkus Murphy, 2012) have suggested that more senior employees can gain technical expertise by working with younger employees who may have a better understanding of

new technologies. Reverse-mentoring, or mentoring by assigning senior-level employees to younger employee mentors for the purposes of passing technical expertise along to the senior-level employees, has been utilized at Procter and Gamble and General Electric (Greengaard, 2002). Furthermore, Kram (1985) suggested that mentors potentially gain professional and personal skills beyond technical learning from mentoring relationships. Clawson (1996) and Kram and Hall (1996) highlighted the necessity of mentor learning in a changing work environment, stating that mentors must continue to develop and learn to stay relevant. More recently, Allen (2007) and Haggard and colleagues (2011) emphasized the importance of studying what and how mentors learn from mentoring, citing a lack of understanding of the mentor learning process. Finally, Ragins (2012) suggested that mentors learn more from relational mentoring (i.e., high-quality state of mentoring) than traditional mentoring relationships. Traditional mentoring relationships are generally considered to be one-sided, with the mentor providing the guidance and the protégé learning from the experience. Conversely, in a relational mentoring relationship, the learning is based on the task or knowledge and not the hierarchical position within the relationship. Despite the many assertions that mentors learn from mentoring, little empirical research tests this assumption.

However, there have been a few qualitative studies identifying mentor learning as an outcome of mentoring. First, in a qualitative study of 27 mentors, Allen, Poteet, and Burroughs (1997) found that learning was an important outcome of mentoring for the mentor. Second, after interviewing six mentor-protégé pairs in an Australian company, Dymock (1999) found that not only did protégés learn from the mentoring relationship, but mentors stated that they experienced increased personal development in the

mentoring relationship, including improved listening skills and clarifying thinking. Third, drawing on findings from interviews with executives, De Janasz, Sullivan, and Whiting (2003) suggested that mentors will also learn from mentoring relationships, especially when their protégés share both successes and failures, and share insights gained from other mentors. Finally, Eby and Lockwood (2005) also identified mentor learning as one of the most commonly reported benefits of mentoring. Although these qualitative findings demonstrate that mentors learn from mentoring, little information is provided about the type of learning and how mentors learned. Learning is discussed as a general outcome with little detail provided about the definition.

To date, only three quantitative studies have examined mentor learning. Mullen and Noe (1999) found that protégé characteristics (e.g., protégé competence and protégé influence) and not mentor characteristics (e.g., self-monitoring) determined whether or not mentors sought information from their protégés. Allen and Eby (2003) examined how mentor/protégé similarity and mentorship types related to both relationship quality and mentor learning. They created a global relationship learning measure that evaluated whether or not mentors generally learned from the relationship (e.g., “I learned a lot from my protégé.”). The authors found that perceived mentor/protégé similarity was positively related to relationship quality and mentor learning. Finally, Hirschfeld and colleagues (2006) found that mentor personal learning was affected by protégé achievement and avoidance orientation. When protégés were higher in achievement orientation, mentors experienced greater personal learning. Conversely, protégé avoidance orientation was negatively related to mentor personal learning.

In general, research demonstrates that mentors do learn from mentoring, but little is known about *what* mentors learn and *how* they learn it. Further clarification is needed to define mentor learning and the theoretical processes explaining how mentors learn.

Negative mentoring experiences from the mentor perspective. Initial research on negative mentoring experiences pegged mentors as the villain, assuming that due to mentors' power and status, they would be the abuser and cause of ineffective mentoring in the mentoring relationship. Contrary to this view, Feldman (1999) suggested that mentors can also have negative mentoring experiences. Despite this revelation, only a few studies have examined the unique outcomes of negative mentoring experiences from the mentor perspective (Eby, 2007).

Consistent with Feldman's idea of the "toxic protégé," preliminary evidence from Allen, Poteet, and Burrough's (1997) qualitative study identified a couple instances where protégés abused the mentoring relationship, using the mentoring relationship perniciously for their own benefit. In a study focusing specifically on negative mentoring experiences, Eby and McManus (2004) used mentor narratives to identify three different categories of negative experiences from the mentor perspective. Similar to research on protégé negative mentoring experiences, the authors found that these mentoring problems exist upon a continuum, ranging from low severity to high severity. The first category related to protégés who either do not want to learn or do not meet the mentors' performance expectations. The second category included more serious relational issues, including difficulty (i.e., conflicts or disagreements), spoiling (i.e., disloyalty or disappointment), benign deception (i.e., protégé impression management), protégé submissiveness, and general dysfunctionality (i.e., protégé personal problems interfere

with the relationship). The third category was the most severe, including negative relations (i.e., protégé exploitation and egomania), malevolent deception (i.e., protégé lying), protégé sabotage, protégé harassment, and protégé jealousy and competition. Beyond identifying these categories of negative mentoring experiences, they explored how typicality of the experience related to its impact on the relationship, finding that the more typical the experience, the more it impacted the relationship, which in turn led to decreased relationship satisfaction. Eby and Lockwood (2005) found that both protégés and mentors reported problems in mentoring relationships, with mentors identifying mentor-protégé mismatches, scheduling issues, and inadequacy as a mentor as issues.

From these qualitative studies identifying the different types of negative experiences mentors have with protégés, Eby, Durley, and colleagues (2008) developed and validated a three-dimensional scale measuring negative mentoring experiences from the mentor perspective. The three dimensions included: 1) protégé performance problems (e.g., protégé performing below expectations, protégé unwillingness to learn, and protégé difficulty at work due to self-destructive behavior), 2) interpersonal problems (e.g., mentor-protégé conflicts, protégé impression management and gamesmanship, protégé submissiveness, and relationship deterioration), and 3) destructive relational patterns (e.g., breach of mentor trust, protégé exploitive behavior, protégé sabotage, jealousy and competitiveness, and protégé harassment). Furthermore, they found that all three dimensions were positively related to intentions to leave the mentoring relationship, and negatively related to relationship quality and fair exchange, while interpersonal problems and destructive relational patterns were positively related to mentor burnout.

Eby and colleagues (2010) found differing impacts of good and bad experiences on mentor outcomes, suggesting that individuals in different roles in the mentoring relationship view positive (defined as mentors' personal satisfaction, increased job performance, organizational recognition, and loyal base of support) and negative experiences differently. Based on previous research suggesting that positive and negative experiences occur in all mentoring relationships (e.g., Eby, Durley, et al., 2008; Eby & McManus, 2004; Ragins et al., 2000), they highlighted the importance of looking at different mentoring experiences rather than their overall relationships, noting that relationships are often the accumulation of multiple experiences, with some positive and some negative. They suggested that both protégés and mentors will put a greater weight on negative experiences than positive experiences in the overall evaluation of the mentoring relationship, but found that mentors varied in their responses to negative and positive experiences. Overall, negative experiences with protégés contributed more to relationship quality and intentions to stay in the relationship than positive experiences, but good experiences were significantly more important than bad experiences in predicting willingness to mentor in the future.

Summary of Mentor Research. Research on the mentor's perspective has grown in the last few decades. While still not as expansive as the protégé literature, willingness to mentor, protégé selection, mentor characteristics and motivation, and relationship characteristics remain the most frequently studied themes. Outcomes of mentoring are surprisingly understudied, with a need to focus specifically on mentor learning and negative mentoring experiences. A relational approach to mentoring, focusing on a high-

quality state of mentoring, provides a promising lens for future mentor research (Ragins, 2012).

Table 1. Summary of Research from the Mentor Perspective

Author(s)	Sample and Method	Main Findings
<i>Willingness to Mentor Others</i>		
Ragins & Cotton, 1993	Field study, three research and development organizations	<p>There were no differences between men and women in willingness to mentor, but women perceived greater barriers to mentoring than men</p> <p>Previous mentoring experience (either as protégé or mentor) was positively related to willingness to mentor</p>
Ragins & Scandura, 1994	Field study, executives	No gender differences between men and women in willingness to mentor, men and women perceived similar costs and benefits for mentoring
Aryee, Chay, & Chew, 1996	Field study, managerial employees in the maintenance career stage	<p>Positive affectivity, altruism, and organization-based self-esteem was positively related with willingness to mentor</p> <p>Rewards for mentoring others and opportunities for interactions on the job were positively related to willingness to mentor</p>
Allen, Poteet, Russell, & Dobbins, 1997	Field survey, state government supervisors	<p>There were no gender differences in willingness to mentor or perceived barriers to mentoring</p> <p>Age was negatively related to willingness to mentor (older less willing to mentor)</p> <p>Previous mentoring experience (either as protégé or mentor) was positively related to willingness to mentor others</p> <p>Individuals with an internal locus of control were more willing to mentor than those with an external locus of control</p> <p>High-quality relationship with supervisor, education level, and upward striving were positively related to willingness to mentor</p>

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Table 1, continued.

Author(s)	Sample and Method	Main Findings
Allen, Poteet, & Burroughs, 1997*	Mentor interviews	Previous mentoring experience (either as protégé or mentor) identified as a reason for willingness to mentor
Ragins & Scandura, 1999	Field study, executives	Previous mentoring experience (either as protégé or mentor) was positively related to willingness to mentor The greater the expected benefits and the fewer the expected costs, the greater mentor willingness to mentor in the future; this relationship was moderated by previous mentoring experience
Allen, 2003*	Field study	Previous mentoring experience (either as protégé or mentor) was positively related to willingness to mentor Other-oriented empathy and helpfulness were positively related to willingness to mentor
<i>Protégé Selection</i>		
Kram, 1985*	Mentor interviews	Mentors are attracted to protégés who are high performing and have technical knowledge
Olian, Carroll, & Giannantonio, 1993	Experiment, banking managers	Mentors weigh the costs and benefits of mentoring a particular protégé and prefer high-performing protégés over average-performing protégés Mentors prefer to provide career mentoring to male protégés if the protégé is married and female protégés when the protégé is single
Allen, Poteet, & Burroughs, 1997*	Mentor interviews	Mentors preferred protégés who have a “people orientation” personality, strong work ethic and initiative, competence, and a learning orientation, and when the protégé reminds the mentor of self
Mullen, 1998*	Field study, Midwestern organizations	Perceived protégé competence was positively related to mentoring

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Table 1, continued.

Author(s)	Sample and Method	Main Findings
Allen, Poteet, & Russell, 2000	Field study, first-line supervisors at a state government	<p>Mentors who perceived greater barriers to mentoring were less likely to choose protégés based on their ability and potential</p> <p>Mentors picked protégés based on the protégé’s ability and potential rather than the protégé’s need for help (more so for female mentors than male mentors)</p> <p>Male mentors who were high in advancement aspirations were more likely to choose protégés based on ability/potential than males lower in advancement aspirations (did not influence female protégé selection)</p>
Allen, 2004*	Experiment and field study	<p>Mentors do not prefer protégés of the same gender</p> <p>Mentors were more likely to mentor protégés higher in ability and willingness to learn</p> <p>Willingness to learn could compensate for lower levels of ability</p> <p>When rewards for mentoring were available, mentors were less likely to mentor protégés who were lower in ability and willingness to learn</p> <p>Mentor motivation (self-enhancement versus intrinsic satisfaction, benefitting others and the organization) affected the protégés selected</p>
<i>Mentor Characteristics, Motivation, and Relationship Characteristics</i>		
Burke, McKeen, & McKenna, 1993	Field study, high tech	<p>Females provided more psychosocial and career mentoring to protégés than males</p> <p>Duration positively related to psychosocial mentoring. Perceived similarity positively related to career and psychosocial mentoring</p>

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Table 1, continued.

Author(s)	Sample and Method	Main Findings
Allen, Poteet, & Burroughs, 1997*	Mentor interviews	Identified self-focused motives and other-focused motives for mentoring others
Ensher & Murphy, 1997	Field experiment, West coast media organization	Mentors paired with same-race protégés liked their protégés more than mentors paired with different-race protégés Number of hours positively related to career and psychosocial mentoring Perceived similarity is positively related to career and psychosocial mentoring
Fagenson-Eland, Marks, & Amendola, 1997	Field study, high tech	Previous mentoring experience was positively related to career mentoring There were no differences between informal and formal mentoring relationships in terms of mentoring provided Duration was positively related to career and psychosocial mentoring
Mullen, 1998*	Field study, Midwestern organizations	Older mentors performed more mentoring than younger mentors Organization-based self-esteem was positively related to a composite measure of career and psychosocial mentoring
Allen, 2003*	Field study	Helpfulness positively related to career mentoring and other-oriented empathy positively related to psychosocial mentoring Self-enhancement motive for mentoring positively related to career mentoring and intrinsic satisfaction motive for mentoring positively related to psychosocial mentoring. Benefitting others motive for mentoring positively related to both career and psychosocial mentoring

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Table 1, continued.

Author(s)	Sample and Method	Main Findings
Godshalk & Sosik, 2003	Field study, mentor-protégé dyads	Mentor and protégé learning goal orientation was positively related to psychosocial and career mentoring
Allen, 2004*	Experiment and field study	Mentor motivation (self-enhancement versus intrinsic satisfaction, benefitting others and the organization) affected the protégés selected
Waters, 2004	Field study, mentor-protégé dyads	Mentor and protégé agreeableness, openness, extraversion, and conscientiousness was correlated with protégé-mentor agreement of psychosocial support
Young & Perrewé, 2004	Field study, academics (mentors and protégés)	<p>Protégé expectations for social support was positively related to career and social support received</p> <p>Protégé gender and need for achievement was positively related to protégé expectations of career and social support</p> <p>Mentoring opportunities was positively related to protégé expectations for social support</p> <p>Mentors' expectations of social support was positively related to mentors' perceptions of reciprocal social support behaviors received</p>
Allen & Eby, 2004	Field study	<p>Females provided more psychosocial mentoring than males and male provided more career mentoring than females; female mentors provided more psychosocial mentoring to female protégés than male protégés; same-gender and cross-gender mentoring relationships received the same amount of mentoring</p> <p>Previous mentoring experience was positively related to career mentoring</p> <p>Duration was positively related to career and psychosocial mentoring</p>

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Table 1, continued.

Author(s)	Sample and Method	Main Findings
Bozionelos, 2004*	Field study, university administrators	Mentor openness to experience and previous mentoring received were positively related to general supervisory mentoring
Lankau, Riordan, & Thomas, 2005	Field study, participants of formal mentoring program at an insurance company	Both gender and race similarity were positively related to mentor reports of role-modeling Interaction frequency positively related to mentor self-reports of career support
Allen, Eby, & Lentz, 2006	Field study, formal mentoring programs	Interaction frequency positively relates to career mentoring but not psychosocial mentoring
Niehoff, 2006	Field study, veterinarians	Extraversion, conscientiousness, and openness to experience were positively related to mentor participation
Wanberg, Kammeyer-Mueller, & Marchese, 2006	Field study, formal mentoring program, (protégés and mentors)	Mentor proactivity was positively related to career and psychosocial mentoring Mentor openness to experience was positively related to career and psychosocial mentoring Higher levels of career mentoring positively related to effect on mentor's job and psychosocial mentoring positively related to rewarding experience
Janssen, van Vuuren, & de Jong, 2014	Informal mentor interviews	Identified five categories of mentor motives: self-focused, protégé-focused, relationship-focused, organization-focused, and unfocused
<i>Mentor Benefits</i>		
Zey, 1984*	Interviews with middle and senior management of Fortune 500 manufacturing groups, retail organizations, and banks	Identified career enhancement, intelligence/information, advisory role, and psychic rewards (pride, sense of contributing to organization) as benefits of mentoring

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Author(s)	Sample and Method	Main Findings
Kram, 1985*	Interviews with mentors	Identified confirmation and support from protégés, intrinsic satisfaction for helping younger person develop, and recognition and respect from others as benefits of mentoring
Collins, 1994	Field study, social workers	Positively related to career success, career satisfaction, and income
Allen, Poteet, & Burroughs, 1997*	Mentor interviews	Identified building a support network, self-satisfaction, and self and other focused job-related benefits as positive outcomes of mentoring
Mullen & Noe, 1999*	Field study	Receipt of technical, referent, and normative information, job performance, and social feedback from protégés
Young & Perrewé, 2000	Field study, academics (mentors and protégés)	Mentor and protégé role behavior positively related to relationship effectiveness and trust, mediated by met expectations
Johnson, Yust, & Fritchie, 2001	Interview, clothing and textiles faculty	Identified career advancement and work satisfaction as benefits of mentoring
Bozionelos, 2004*	Field study, university administrators	Mentoring was positively related to objective and subjective career success
Eby, Durley, Evans, & Ragins, 2006	Field study, salaried employees at two large state universities	Short-term benefits (improved job performance, recognition by others, rewarding experience, and loyal base of support) related to long-term outcomes (work attitudes, and behavior intentions to mentor in the future)
Allen, Lentz, & Day, 2006	Field study, healthcare organization	Mentoring was positively related to salary, promotion rate, and subjective career success (controlling for demographic and human capital factors)

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Table 1, continued.

Author(s)	Sample and Method	Main Findings
Lentz & Allen, 2009	Field study, government employees	Mentoring was positively related to job attitudes (i.e., job satisfaction and affective organizational commitment) and negatively related to intentions to quit Mentor experience and psychosocial mentoring moderated the relationship between job content plateauing and job attitudes
Chun, Sosik, & Yun, 2012	Field study, employees in formal mentoring program	Career and role modeling given was positively related to transformational leadership; role modeling was positively related to affective well-being; career and psychosocial support were positively related to organizational commitment
<i>Mentor Learning</i>		
Allen, Poteet, & Burroughs, 1997*	Mentor interviews	Identified learning as a mentor outcome of mentoring
Dymock, 1999	Mentor and protégé interviews (6 dyads)	Protégés and mentors both indicated learning from mentoring experiences
Mullen & Noe, 1999*	Field study	Receipt of technical, referent, and normative information from protégés Mentors high in self-monitoring are more likely to seek information from protégés
Allen & Eby, 2003	Field study	Mentors reported higher levels of learning when similar to protégés
Hirschfeld, Thomas, & Lankau, 2006	Field study, insurance company	Protégé achievement orientation was positively related to mentor personal learning Protégé avoidance orientation was negatively related to mentor personal learning

*Included in more than one section

Table 1, continued.

Author(s)	Sample and Method	Main Findings
<i>Dysfunctional Mentoring Experiences</i>		
Zey, 1984*	Interviews with middle and senior management of Fortune 500 manufacturing, retail, banks	Identified time/energy, risk of incompetent protégés, protégé's resignation, and risk to the mentor's reputation and exposure of self as negative aspects or risks of mentoring
Allen, Poteet, & Burroughs, 1997*	Mentor interviews	Identified time requirements, favoritism issues, abusive relationships, and feelings of failure as negative aspects of mentoring
Eby & McManus, 2004	Narrative accounts of mentor experiences	Identified three different categories of dysfunctional experiences ranging from low severity to high severity The more typical the dysfunctional experience, the more it impacted the relationship which led to decreased relationship satisfaction
Eby & Lockwood, 2005	Interview, telecommunications company and nationwide community-based health organization with formal mentoring programs	Protégés and mentors both reported problems in mentoring relationships (e.g., mentor-protégé mismatches, scheduling issues, and inadequacy as mentor)
Eby, Durley, Evans, & Ragins, 2008	Three studies utilized for scale development and evaluation	Developed scale for measuring dysfunctional mentoring experiences
Eby, Butts, Durley, & Ragins, 2010	Study 1 surveys protégés and Study 2 surveys mentors	Mentor perspective only: Good mentoring experiences were positively related to overall relationship quality, greater willingness to mentor in the future, and stronger intentions to stay in the relationship Dysfunctional mentoring experiences were positively related to burnout, negatively related to relationship quality, willingness to mentor, and intentions to stay in the relationship. Good and bad experiences weighed about the same on most mentor outcomes

*Included in more than one section

Pilot Study Purpose and Overview

As mentors' perceptions of negative mentoring experiences was identified as an area of future research, I conducted a small pilot study to explore mentor reactions to high-potential protégés who make career decisions that do not align with the mentor's expectations for the protégé. A high-potential protégé was defined as a person who the mentor identified as someone who had the potential to be highly successful either in an organization, specific role, or career. A disappointing career decision was defined as a decision contrary to what the mentor thought was best for the individual's career. This decision could include performing below expectations, unwillingness to learn, and difficulty at work due to self-destructive behavior. After speaking with a practitioner who had considerable trouble with his protégé, I chose to focus on a disappointing career decision because I wanted to explore mentor reactions to a similar type of negative mentoring experience. Furthermore, his description was consistent with the protégé performance problems dimension identified by Eby, Durley, et al. (2008). This exploratory study was designed to identify research questions for my primary study. The research questions addressed in this pilot study are:

1. How do mentors react to disappointing career decisions made by high-potential protégés?
2. How do these career decisions impact the mentor's future mentoring relationships?

Sample

Recruitment emails were sent to friends, family members, and colleagues who I knew had mentoring or supervisory responsibilities. All eligible individuals were asked to

email me regarding their interest to participate in a semi-structured telephone interview. Individuals were considered eligible if they had mentored (this could include supervisor mentoring) a high-potential protégé who went on to make a disappointing career decision. The recruitment email was sent to 91 individuals. Of these individuals, 13 people had mentored an individual who went on to make a disappointing career decision and agreed to participate in the study (14.3% response rate). Of these 13 individuals, 2 had mentored protégés in the community and not the workplace. These individuals were excluded from the analysis counts below.

From the 11 individuals who qualified to participate, 4 were female, with all participants having an average age of 46 (2 participants did not report age). All respondents were white. While most individuals identified one protégé to describe, three participants identified multiple protégés. Of the identified protégés (14), 9 were female (1 did not report gender). Several different industries were represented by participants, with 4 in manufacturing, 2 in professional services, 2 in education, 1 in transportation, 1 in wholesale trade, and 1 in government.

Procedure

Semi-structured interviews were conducted with the 11 qualified mentors (see Appendix A for interview protocol). The initial questions focused on participants' career history and mentoring and supervisory experience. Participants were then asked to describe the protégé, relationship quality, duration and nature of the relationship, and protégé responsibilities. Participants were asked to describe the decision the protégé made that disappointed them as well as their initial and long-term reactions and how this experience related to interactions with other protégés. Basic demographic questions were

also asked about both the participant and the protégé. Interviews averaged 41 minutes in length, and ranged from 20 to 58 minutes in length. Most interviews (9) were audio recorded and transcribed by a professional transcription company. Participants who did not want their interviews sent to a transcription company were still audio recorded. I listened to these two interviews multiple times and took detailed notes. Additionally, I transcribed relevant quotes so they could still be included in analysis.

Data Analysis

Interviews were content analyzed to identify themes and patterns (Bordens & Abbott, 2002; Krippendorf, 1989). I first developed descriptive codes (Miles & Huberman, 1994) relating to the nature of the disappointing decision, mentor reactions, and behavioral changes to retrieve and organize information from the interviews. After coding the interviews, I created sub-categories for each major category to group reactions and behavioral changes that were similar in meaning.

Finally, I calculated the number of protégés who made each type of disappointing career decision. For the different categories of reactions and behavioral responses, I calculated the number of mentors who discussed each category of reactions and behavioral responses. If the participants spoke about multiple protégés, I counted the reactions separately for each protégé.

Pilot Study Results

Disappointing Career Decisions

Participants reported that protégés made five different types of disappointing career decisions. The most prevalent disappointing career decision occurred when protégés left the organization, with interviewees identifying five protégés who made this

decision. These individuals left for both personal and professional reasons, and did so both with and without warning.

“This is someone I mentored very closely. We worked together. She progressed well in her career. I made her a partner of mine. There were clear signals about the future. And she came in one morning and said she was leaving that day” (Participant #9).

“[She] left for family reasons, and then decided to change careers after leaving” (Participant #4a).

“I spent quite a bit of time talking with her over the phone about just hanging in there to get through the semester. Checking to see if she could take a leave, hang in there maybe for the year because you need to have more time to see if this is what you like or don’t like. And she abruptly quit” (Participant #6a).

Neglecting to listen to career advice was identified for three protégés. These mentors were primarily concerned that their protégés could have made a broader impact within the industry or organization, and did not have the same impact as a result of not taking the advice.

“And she just basically ignored my warnings, or my coaching and mentoring. You’ve got to be able to do this to go further in your career. She ignored those warnings, and said, ‘You don’t know what you’re talking about. I’m going to go back over here where I had success before, and I’m going to prove you wrong.’ That’s how it came across” (Participant #7).

“But he asked if he should take it. I told him he should take the job after he shared some details with me about – and I don’t remember the particulars of what

the offer was but it just sounded like a better deal... He didn't take the offer...

And I told him, you're a dummy. So – but he stayed and basically I was

disappointed. I was disappointed that he one, asked for advice. It's always hard when somebody asks for advice and they don't take it. Like, come on, why'd you ask me in the first place?" (Participant #1).

"I hear you, I know what you are saying...but I'm also thinking about you and want to challenge you on what about the longer term...he aspired to [be a leader], and so that's why I was kind of pushing a little bit harder... maybe you should really consider going into an area that you really don't know... He ended up taking the other job" (Participant #8).

Participants identified three protégés who did not want to advance in their careers. Protégés who did not want to advance in their careers were described as having the potential to make a significant impact in their organization, but did not want to invest the time or the effort necessary to move forward. These individuals were described as, "settling," or "the drive fizzle[ing] out."

"She's the one that held herself back because she didn't want all that responsibility" (Participant #5).

"In his mind he's just going to be there until he retires now...And seriously, he could've done almost any job over there on that [location]... he could've done any of that but he just sort of, okay, now I'm there that's good enough. So that's what was frustrating" (Participant #12a).

Refusal to change negative behavior was identified by two participants. In these situations, mentors described having multiple conversations with the protégé with no

results. In both cases, these protégés moved to different positions or left the company as a result of their refusal to change their behavior.

“And at the end of the year, I did a formal evaluation for her. And I said, ‘These are the things you do well. These are the things you needed to improve, and you improved. These are areas you still need to improve on.’ Before I could go through those she said, ‘I’m not listening to you anymore.’ She refused to read the letter that I had written... Then the new Department Chair came in, and she lasted a year and three months after the new Department Chair came in. Then she was basically put in a position where she had to retire” (Participant #006b).

“I was very disappointed. Even though I had conversations, and I thought I was having the right conversations, it didn’t seem to change the behavior. It ended up leading to issues with HR” (Participant #11).

Finally, one protégé was identified as reacting poorly to a negative workplace event by her mentor. This protégé thought she would receive a promotion, and when she found out the promotion was being given to someone else, she reacted emotionally and lashed out at individuals in the department. Her mentor was shocked and surprised that she reacted in this way, which eventually led to her getting reassigned to another area.

“She started yelling at him on the phone, telling him he had no idea what he was doing. And then she started to reach out to other people in that management organization saying, ‘You’re making a mistake. I’m doing really well, and I’m the best person for the spot.’ And I think rather than portraying her being the person who would have been the best for this, it was more coming across as, ‘I

didn't get what I wanted, and I'm going to start a bunch of fires and see what happens'" (Participant #10).

In sum, participants reported that protégés made five different types of disappointing career decisions: 1) left the organization, 2) neglected to listen to career advice, 3) did not want to advance in their careers, 4) refused to change negative behavior, and 5) reacted poorly to a negative workplace event.

Mentor Reactions

From the responses relating to mentor reactions, I grouped these reactions into three major subgroups: affective responses, learning processes, and learning outcomes.

Affective responses. Many participants (six) reported strong affective responses to the disappointing career decisions. While some reported anger and disappointment, others reported genuine concern for the protégé's future and a sense of loss that the mentor no longer had the same professional or personal relationship with the protégé. Disappointment and anger was identified in two cases.

"Well, quite honestly I was a little bit angry because I thought I tried so hard, and it didn't happen. So I was disappointed, I was frustrated. I knew that I had pretty decent – I know that I have pretty decent skills with working with people, so I wasn't used to being unsuccessful. I was used to success at work" (Participant #6b).

"But for me it was disappointing to see her go back to the exact same department that she left from, where that past behavior was actually encouraged. So that's where the disappointment from my perspective came in, I don't think she's doing herself any favors by going that route" (Participant #7).

Concern for the well-being and future of the protégés was identified for four people. One example quote:

“Mostly I was concerned for her. I was frustrated... Mostly I was concerned for her that she would regret her decision, and that would make it more difficult to make decisions in the future” (Participant #6a).

Finally, sense of loss was identified by participants for two protégés. In many cases, participants lost personal relationships in addition to professional relationships.

“You felt the whole – when you came back to school it was like, ‘Oh, man. It would’ve been so nice to have this person come back because,’ maybe the person we hired wasn’t as good” (Participant #4b).

“I’m protecting myself a personal loss as well. Because I knew her kids, I knew some of her grandkids. She knows my kids... it was a loss” (Participant #6b).

Learning Processes. After participants found out about the disappointing career decisions, all participants went through sensemaking processes where they reflected on mentoring relationships to determine why protégés made the decision they did and how they could have handled the situations better. For eight of the protégés, participants worked to identify motives behind the behavior to try and understand why protégés behaved in the way they did. Many speculated and threw out different ideas to make sense of the decisions.

“It’s a decision that I don’t fully understand...The initial reaction and the current reaction are still one in the same. It’s just utter confusion around why that decision was made. I’m wondering if it’s wanting to be a big fish and then also

like you build up a certain reputation at a school and needing to get away and start fresh” (Participant #4b).

“I think she definitely has some potential, and she had the desire, she expressed the desire. So maybe she was just saying that for my benefit because that’s what all your bosses want to hear. They want to hear that you want to be developed; you want to move on, you want to do some bigger and better thing” (Participant #7).

“And I think he just didn't want to work anymore than his 40 hours maybe, and then that was it. It's like okay, I'm – plus maybe he wasn't as good at team collaborating you know” (Participant #12a).

While most participants did not fully understand the motives behind the behavior, they still went through a self-reflection process where they identified how they could improve future mentoring experiences. These self-reflection processes were undertaken for six protégés’ decisions.

“Well, I think it had more has positive toward me because – me, personally because I look at it as, what could I have said or done differently? But then I also look at it as that I’m not in charge of this person’s life. I can listen, I can talk, I can be supportive, but when it comes right down to it I think it helped me understand people are going to make decisions that I’m not always going to agree with. And that in some ways has helped to maybe be a little bit more patient” (Participant #6a).

“I look back and wish I’d been able to either change how I was communicating with her, so it sunk in a little bit more... What I did do after she left though was I

went back to my boss and we kind of had a – What are your thoughts? What are your takeaways from that? And how can we improve our experience for the entire team? So that we can either recognize before that... and just more focused on how do we address that going forward?” (Participant #7).

“If you put a lot of work into anything, and then you saw it not succeed, and that person leaving is kind of like seeing as a fail... It does feel like a failure from that point, but I don’t think it’s a reflection of the organization so much, and more of a reflection of that individual and how I can do a better job of coaching individually to help retain teachers” (Participant #4a).

Another mentor described a separate mentoring experience where he wished he could have changed his own strategy. Contrary to some of the other mentoring experiences, this protégé followed the mentor’s advice, and the mentor was disappointed with the outcome of the situation. The mentor reflected on the situation, and identified areas that he should have considered when mentoring his protégé (e.g., the team he advised the protégé to join and the supervisor the protégé would work with in the new position). The participant highlighted these shortcomings and said that he would take these additional factors into account in future mentoring relationships.

Learning outcomes. From the interviews, I identified four learning outcomes from this negative mentoring experience. These outcomes were decreased trust and self-protection, recognizing a desire to be developed, adaptation of mentoring style and relational skills, and recognition of ways to improve the work environment. First, the majority of participants (seven) participants described a need to be more cautious and

protect themselves in future mentoring and supervisory relationships. This includes issues related to trust and protecting one's own resources and time.

“You know it's interesting, I can clearly say that I'm a lot less trustworthy of even employees or colleagues that I feel I have a really good relationship with. There's always a sense of doubt” (Participant #9).

“Doesn't mean she won't be in five years, and part of it with the hold back for me is there's a little bit of trust that says does she really want to be a boss, does she really want to be here fulltime so I may hold back a little bit saying do I really trust her to be a senior level manager at this point?” (Participant #5).

“Yeah, a little bit. It really – I don't take their, ‘Yeah I want to know your opinion on the matter.’ That kind of thing, I don't take it at face value. I'm really more focused at digging into what's the drive behind that comment or statement. What are you hoping to get out of this relationship? ...what are you going to do with that information after I give it to you?” (Participant #7).

“I think I'm more cautious about keeping records if something happens that I'm more – So it's like this incident happened, this is what happened, more observations. So I am better at keeping records like that” (Participant #6b).

“I was more guarded with my time and I always tried to devote my time to where I felt it would be useful and productive for the organization, I guess is the best way to say it” (Participant #12a and 12b).

“I'm not as trusting at face value... I tend to ask more probing questions in these types of situations to figure out what is going on” (Participant #11).

Along with the need for self-protection, two participants expressed the importance of identifying whether or not protégés truly wanted to be developed. These participants described probing beyond initial claims that protégés want to become leaders to ensure that they actually do want to be developed. Mentors described looking for a “spark” that indicated that protégés were truthful in their desire to be developed. Although not included in these counts, both community mentors indicated the importance of recognizing this willingness to be developed.

“It’s just a learning experience. You’re not going to be able to develop everybody. Everybody says they want to be developed, but not everybody really does. They just want to do what they want to do, and keep doing how they’ve been doing things. I think it’s recognizing that personality trait earlier. Not so I can quit investing in them, but change how I approach that” (Participant #7).

“People let you know that they don’t want that level of responsibility” (Participant #5).

“I did. I guess kind of sadly I was always more cautious with the up and coming, you know the young folks that came and they were all gung-ho I’d sort of have a little bit of a reservation until I saw a glimmer of more” (Participant #12a and 12b).

Several (six) participants reported that their mentoring approach changed after their experience, with some individuals becoming better listeners while others became more direct. In this way, individuals became more adaptable in their mentoring relationship and improved their relational skills.

“For me actually – to a certain extent it’s made me kind of positive impact on my desire to mentor because that’s a way to keep – to make a relationship more solid” (Participant #9).

“When I think about how coaching with this person should’ve gone better, I wonder if I just need to be more direct sometimes so they can see a faster turnaround and faster change, and I can also see a faster change from my efforts. So if I’m seeing them putting a difference between them and the students, just saying, ‘Hey, I’m seeing your putting up a wall that’s causing issues in your classroom,’ and really getting to the root of the problem as opposed to me identifying that as a problem and trying to come up with fixes on my own, but having that person then come up with the solutions” (Participant #4a).

“I think the way that it has impacted me is that I do try to draw them out, as far as help them explore themselves, what they care about. And I also as I see students floundering—because I see a lot of students floundering, not sure what they want to do. I tell them it’s okay to flounder, but at the same time explore, and really reflect and think about what’s going on. But not to beat themselves up about floundering, but more to use the kind of floundering as part of their journey towards something that they’re passionate about. So it has impacted me... So I think working with – mentoring this one individual has helped me understand maybe the pressure that somebody that’s been so academically gifted, the pressure that they might feel from the outside world. So it has softened the way I do talk to some students. Instead of, ‘Oh, you can do anything.’ I talk with them more

like, ‘What would you want to do? What do you care about?’ And maybe a little bit better listener” (Participant #6a).

“Well, I would say, yes, in a way it made me wiser in decision-making and things like that” (Participant #12a and 12b).

“I think that probably the learning from this is to really pay attention and be able to speak up quickly if you see indicators that say, okay, this is probably not going to end like a fairytale” (Participant #3).

Finally, two participants worked to improve their work environments after the negative experience. For example, one participant recognized organizational shortcomings after his negative experience, and as a result adapted the way that he managed to focus more on embedding and communicating to employees that they are valued within the organization.

“I guess the flip side of that is I’m a lot more open about it, in a sense that I check in with employees more than I ever did. I make it clear to them, maybe more clear that I want them to be happy, I want to know if they’re not, etc. That doesn’t mean they always will tell me. But there’s I guess in addition to the flip side of always having a little lack of trust, I try to be more proactive than I was. And not take for granted people will – you’re always meeting the needs of your employees so they don’t have to worry about doing something different” (Participant #9).

Another participant discussed potentially retaining employees by having earlier conversations and moving individuals into roles where they may be a better fit.

“We can go back to – in this case could go back to the owner earlier on and say, it looks like there's the potential that you two may not be able to be on the same

page. So let's start talking about alternatives. Is there some other place in the organization for him, and start having those conversations earlier on” (Participant #3).

Conclusion

From my content analysis, I identified five different types of disappointing decisions. While mentors generally had immediate negative affective responses to these decisions, including anger and disappointment, concern for protégés’ future, and a sense of loss, most participants engaged in learning processes after the experience to learn for their future relationships. Learning processes included identifying motives behind the behavior and reflecting on the experience. Learning outcomes included decreased trust and self-protection, recognition of protégés’ desire to be developed, adaptation of mentoring style and relational skills, and recognition of ways to improve the work environment. Results from this exploratory pilot study suggest that negative mentoring experiences can result in positive learning processes and outcomes for mentors.

Summary of Literature

While the majority of mentoring research has been conducted from the protégé perspective, a growing body of research focuses on the mentor side of the relationship. Much of this research focuses on mentor willingness to mentor, protégé selection, mentor dispositional and motivational characteristics, and relationship factors. Recent research has identified additional attributes of mentoring relationships, including the reciprocal element of the mentoring relationship which can be beneficial for both the protégé and mentor (i.e., learning partnership), and regular, consistent contact (Haggard et al., 2011). Development, growth, and learning are fundamental requirements of mentoring

relationships, however, little research examines what mentors learn from mentoring experiences and how these experiences lead to learning outcomes. Future research is needed to define mentor learning outcomes and identify the theoretical explanations detailing how mentoring experiences relate to different learning outcomes. Finally, more research is needed to explore additional outcomes of extreme mentoring experiences, from both the positive and negative perspective.

From my exploratory pilot study, I found that mentors who had negative experiences with their protégés were likely to reflect and learn from these experiences, using the skills they learned from negative or disappointing mentoring experiences to help with future experiences. Based on my review of the literature as well as the results from my exploratory interviews, I plan to take a relational approach to mentoring, exploring what and how mentors learn from their positive and negative mentoring experiences. To develop my theoretical model and enumerate hypotheses, I will draw on a relational mentoring perspective (Ragins, 2012) and social learning theory (SLT; Bandura, 1969, 1971), which suggests that individuals learn from both direct and vicarious experience. Thus, I suggest that both positive and negative experiences are important for mentor learning, with these experiences both resulting in learning outcomes. In the next chapter, I present my theoretical model and hypotheses to further examine what, how, and when positive and negative mentoring experiences relate to mentor learning.

CHAPTER III. THEORY AND HYPOTHESES

To fully understand the benefits mentors obtain from mentoring relationships, it is important to understand and define mentor learning and the processes that mentors undergo to achieve learning. Therefore, the purpose of this study is to examine what mentors learn from mentoring experiences, and how these experiences relate to mentor learning. Additionally, I will examine important boundary conditions for the relationship between mentoring experiences and mentor learning. I expect to answer the following three research questions:

- 1) What do mentors learn from their mentoring experiences?
- 2) How do mentoring experiences relate to learning?
- 3) Under what conditions do mentoring experiences relate to learning?

I will contribute to the mentoring literature by using a relational mentoring perspective in conjunction with social learning theory (SLT) to demonstrate what, how, and when mentors learn from mentoring experiences. In the following chapter, I describe the relational mentoring perspective and SLT in more detail, integrating these theoretical frameworks with the development of my hypotheses.

Relational Mentoring Perspective

Culminating from the positive psychology (Seligman & Csikzentmihalyi, 2000) and positive organizational scholarship literatures on high-quality connections (Cameron, Dutton, & Quinn, 2003; Dutton, 2003), along with the relational approach to career development (Kram, 1996; Hall & Associates, 1996), the relational mentoring perspective has recently emerged within the mentoring literature (Ragins, 2012; Ragins & Verbos, 2007). Grounded in feminist research from the Stone Center for Developmental

Services and Studies at Wellesley College (e.g., Gilligan, 1979; Jordan, 1997; Jordan, Kaplan, Miller, Stiver, & Surrey, 1991), the relational approach to career development recognizes that interaction with others is a critical component of learning and development, with identity and competence changing through interactions with others (Kram, 1996). The central premise of this framework builds on ideas from relational cultural theory that human growth predominately takes place in an environment where individuals can create a connection with others (Fletcher & Ragins, 2007; Jordan et al., 1991). Through the formation of “mutual and meaningful connections with others, individuals gain a greater sense of energy, purpose, vision, and ultimately, self-understanding” (Walsh, Bartunek, & Lacey, 1998, p. 104). This perspective suggests that relationships provide increased knowledge, resources, identities, and psychological growth (Ragins & Verbos, 2007) with high-quality relationships allowing a context for learning (Dutton & Heaphy, 2003). Building on the idea of career growth as a relational process, the relational mentoring perspective suggests that mentoring relationships are dynamic, and individuals can fluctuate through three mentoring states ranging from low-quality to high-quality: 1) dysfunctional, 2) traditional, and 3) relational (Ragins, 2012). The vast majority of mentoring research focuses on the traditional or average mentoring state (Ragins & Verbos, 2007). Whereas the focus on the dysfunctional mentoring state has slightly increased in recent years, even less empirical research examines the relational state of mentoring. Relational mentoring represents a high-quality form of mentoring and is defined as an “interdependent and generative developmental relationship that promotes mutual growth, learning and development within the career context” (Ragins, 2012, p. 519). Relational mentoring is based on communal norms, characterized by caring and

concern for others rather than the typical exchange norms inherent in traditional mentoring (Chandler et al., 2011; Fletcher & Ragins, 2007) and is considered to be the most positive state of mentoring (Ragins & Verbos, 2007). This idyllic state of mentoring involves an interdependent and developmental relationship that often results in additional outcomes for both mentors and protégés beyond the career sphere (e.g., life satisfaction; Chandler et al., 2011; Ragins, 2012).

There are four key principles associated with relational mentoring: 1) use of a dyadic and reciprocal perspective, 2) reliance on communal norms and generative processes, 3) extended range of dependent variables, and 4) a holistic approach. First, consistent with Kram (1985)'s original conceptualization of mentoring, relational mentoring emphasizes the mutuality and reciprocity components of mentoring relationships. Relational mentoring relationships are expected to provide opportunity for mutual growth, learning, and development, recognizing that mentoring relationships can be beneficial for both protégé and mentor (Fletcher & Ragins, 2007; Ragins, 2012). This perspective recognizes that mentors are not the only authority in mentoring relationships and protégés can also be a source of influence (Fletcher & Ragins, 2007).

Second, relational mentoring relationships are expected to be governed by communal norms as opposed to exchange norms. In relational mentoring, mentors give to their protégés as needed rather than giving based on expected returns for investment in protégé development. Third, relational mentoring is expected to broaden mentoring outcomes to outcomes outside of the typical career environment such as life satisfaction, role integration and balance, relational competence, vitality, and resilience for both parties (Chandler et al., 2011; Ragins, 2012; Ragins & Verbos, 2007). Finally, by taking a

holistic approach, relational mentoring incorporates potential spillover into nonwork contexts, developing a mentor's relational resources for both work and nonwork domains (Ragins, 2012).

The proposed study examines the process of relational mentoring by directly testing a piece of the relational mentoring framework. Overall, a relational mentoring perspective suggests that positive mentoring experiences with their protégés will evolve into a relational or high-quality mentoring relationship. Such high-quality relationships will lead to increased mentoring self-efficacy and learning. However, a relational mentoring perspective fails to recognize that mentors who have negative experiences with their protégés likely still learn from these experiences. While the overall relationship may be disappointing or dysfunctional, I suggest that mentors still glean personal developmental or learning benefits. The proposed study integrates a relational mentoring perspective with SLT to challenge the assertion that mentors can only learn from high-quality or satisfying (i.e., relational) mentoring experiences. By incorporating SLT with the relational mentoring framework, I suggest that negative mentoring experiences also provide a catalyst for mentor learning.

Social Learning Theory

Social learning theory suggests that individuals can learn through both direct and vicarious experiences with learning occurring through the observed consequences of both their own and others' behaviors (Bandura, 1971, 1977a). Learning through direct experience occurs when individuals are made aware of the "relationship between one's actions and their outcomes" with "reinforcing consequences [serving] as an unarticulated way of informing performers what they must do in order to gain beneficial outcomes or

to avoid punishing ones” (Bandura, 1971, p. 3). Vicarious experience involves learning by observing the actions and decisions of others. In the context of this study, I propose that mentors acquire knowledge through both direct and vicarious experience, with direct experience including the experience of mentoring their protégés and vicarious experience including observations of their protégés’ behaviors and the consequences that protégés encounter as a result of their behaviors.

Much of the research on SLT focuses on the idea that individuals model behavior after significant others, learning from their consequences and responses. Accordingly, SLT has been primarily utilized in the management literature to highlight the importance of role modeling. For example, SLT has been used to explain the effectiveness of behavioral modeling (Fulk, 1993; Simon & Werner, 1996), to demonstrate the impact of social context on interpersonal aggression and antisocial behavior (e.g., Glomb & Liao, 2003; Robinson & O’Leary-Kelly, 1998) and supervisor behavior on their subordinate’s behavior (Dragoni, 2005; Ilies, Morgeson, & Nahrgang, 2005; Lian, Ferris, & Brown, 2012; Liu, Liao, & Loi, 2012), and most recently, to explain how parental income relates to leaders’ behavior and effectiveness (Martin, Cote, & Woodruff, 2016). Other management literature utilizes the idea of learning through direct experience as a framework to advance leadership development and management learning processes (e.g., DeRue, Nahrgang, Hollenbeck, & Workman, 2012; DeRue & Wellman, 2009; McCauley, Ruderman, Ohlott, & Morrow, 1994). Most relevant to this study, SLT has been used in the mentoring literature to explain how protégés learn from the receipt of feedback from mentors and the role modeling aspect of mentoring (e.g., Lankau & Scandura, 2002) and to demonstrate how supervisor’s own mentoring received relates to

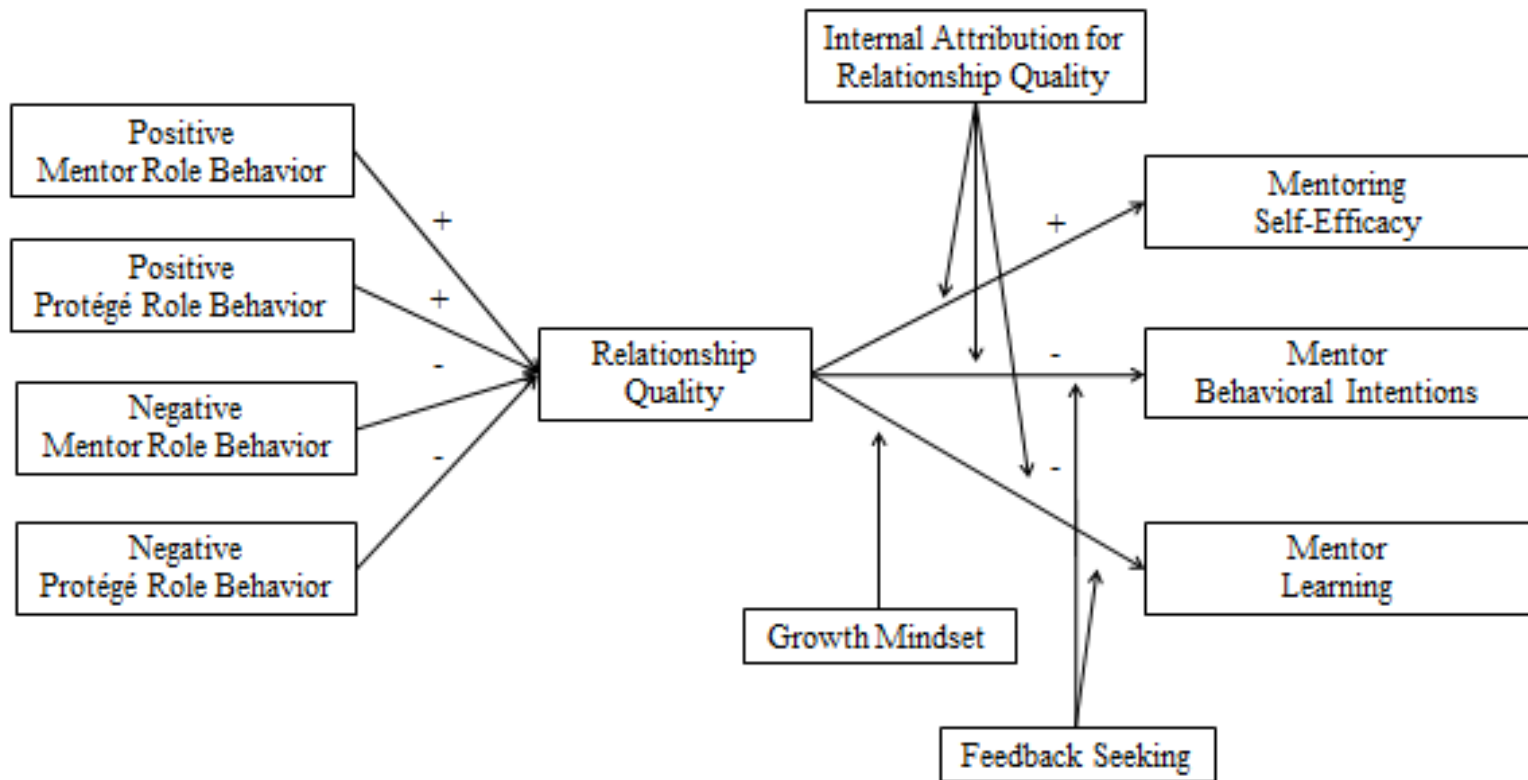
employee's OCBs (Eby, Butts, Hoffman, & Sauer, 2015). Other research on learning from the experience of mentoring utilizes adult development research to describe the direct relationship between mentoring support given and mentor self-reports of personal learning (e.g., Hirschfeld et al., 2006).

Although relational mentoring theory suggests that mutual learning only occurs in a relational state of mentoring, characterized by positive mentoring experiences, SLT suggests that mentors learn from both positive and negative experiences. Specifically, when negative consequences occur as a result of unsuccessful behavior, these consequences guide future mentor behavior by directing mentors away from the behavior that received the negative consequence (Bandura, 1971). Observing consequences of actions (both their own and others') provides a blueprint for future behavior (Bandura, 1977a).

The notion that failed or unexpected events are important for learning has garnered widespread support throughout the organizational literature (e.g., Ellis, Mendel, & Nir, 2006; Zakay, Ellis, & Shevalsky, 2004). These experiences are expected to create a state of discomfort and perplexity, leading individuals to potential growth or change (Kolb, 1984; Osterman, 1990). Perceiving a problem or discrepancy provides an impetus for observation, reflection, and the creation of potential solutions (Osterman, 1990).

In sum, SLT suggests that positive and negative mentoring experiences lead to mentor learning. In the hypotheses outlined below, I use a relational mentoring perspective along with SLT to explain how and when mentors learn from both positive and negative mentoring experiences. The following sections provide rationale for my hypotheses and walks through the theoretical model presented in Figure 1.

Figure 1. Theoretical Model



Hypothesis Development

The purpose of this study is to examine what mentors learn from positive and negative mentoring experiences and how these experiences relate to mentor outcomes. The outcomes include mentoring self-efficacy, mentor behavioral change intentions, and mentor learning. I draw on the relational mentoring perspective (Ragins, 2012) and SLT (Bandura, 1969, 1971) to ground my hypotheses. I propose that mentor perceptions of protégé's positive role behavior and protégé perceptions of mentor's positive role behavior are positively related to relationship quality. Mentor perceptions of protégé's negative role behavior and protégé perceptions of mentor's negative role behavior are negatively related to the relationship quality. In turn, relationship quality is positively related to mentoring self-efficacy, but negatively related to the amount of mentor behavioral change intentions and mentor learning. While I expect that relationship quality is negatively related to the *amount* of behavioral change intentions and mentor learning, I anticipate that varying relationship quality lead to different *types* of behavioral change intentions and learning and thus explore this question qualitatively. I will also examine internal attribution for relationship quality, growth mindset, and feedback seeking as moderators of these relationships.

The two studies that are most similar to my research are Young and Perrewé (2000) and Eby et al. (2010). First, Young and Perrewé (2000) examined the relation between both mentor and protégé role expectations and relationship effectiveness and trust. They found that when the mentoring partner (either mentor or protégé) fulfilled the other partner's expectations of appropriate role behavior in a mentoring relationship, they were more likely to have an effective relationship and increased trust. The authors

conceptualized protégés' perceptions of mentor role behavior as career and social support given. Conversely, mentors' perceptions of protégé role behavior were conceptualized as how protégés received career and social support from the mentor, with protégés actively receiving their mentors' support. For example, protégés may expect that mentors will introduce them to important contacts (such as other researchers in their field) and mentors may expect that their protégés will be prepared to discuss relevant research with these contacts. Overall, their study demonstrated the importance of considering both partners' perceptions of role expectations on relationship effectiveness and trust and highlighted that protégés are not passive recipients of mentoring, but have an active role in the mentoring relationship.

Second, Eby and colleagues (2010) examined protégé and mentor perspectives of good and bad mentoring experiences in two separate studies to determine which type of experience had a stronger relationship with outcomes. In their first study, they found that good mentoring experiences from the protégé perspective (conceptualized as mentoring support given) were positively related to protégé perceptions of relationship quality and intentions to remain in the relationship and negatively related to depressed work mood. Bad experiences (assessed using Eby et al.'s 2004 measure of protégé-mentor mismatches, neglect, manipulative behavior, and general dysfunctionality) were negatively related to protégé perceptions of relationship quality and intentions to stay in the relationship and positively related to depressed work mood and psychological withdrawal. Additionally, they found that protégés' good experiences had a stronger impact on relationship quality than bad experiences. In their second study, they found that good mentoring experiences from the mentor perspective were positively related to

mentor perceptions of relationship quality, willingness to mentor in the future, and intentions to remain in the relationship. Bad mentoring experiences (assessed using Eby, Durley, et al.'s 2008 measure of dysfunctional mentoring) were positively related to mentor burnout and negatively related to relationship quality, intentions to remain in the relationship, and willingness to mentor in the future. Finally, they found that mentors' bad experiences had a stronger impact on relationship quality and intentions to remain in the relationship than did good experiences. Good experiences had a stronger relationship with willingness to mentor than did bad experiences.

While Eby and colleagues (2010) included measures of both positive and negative experiences along with relationship quality, their measures of bad protégé experiences and mentor experiences included relational components (e.g., "My mentor and I have dissimilar personalities" and "I feel that our relationship is not as satisfying as it used to be") and therefore confounded relationship quality with the experience or behavior of the opposite partner (Eby et al., 2004; Eby, Durley, et al., 2008). Additionally, good mentor experiences were measured with Ragins and Scandura's (1999) scale, which included measures of personal satisfaction, generativity, enhanced job performance, organizational recognition, and loyal base of support for the mentor (e.g., "I obtain position recognition from my department/unit for mentoring this protégé"). This scale assessed mentor outcomes rather than mentor perceptions of the experience itself. Confounding behaviors with relationship quality and mentor outcomes is common practice within the mentoring literature (e.g., Ragins, 2012) and often leads to confusion regarding the constructs of interest.

My proposed study extends beyond Young and Perrewé (2000) and Eby and colleagues (2010) by examining how positive and negative role behavior within the same dyad relates to mentor learning outcomes. Similar to Young and Perrewé, I will separate protégé and mentor behavior from assessments of relationship quality. *Relationship quality* is defined as the “subjective, emotional experiences of both parties in the relationship” (Humberd & Rouse, 2015, p. 5) that ranges from low to high quality. *High-quality mentoring relationships* are characterized by mutual trust, liking, and overall satisfaction with the relationship (Allen & Eby, 2003; Kram, 1985; Ragins, 2012). Conversely, *low-quality mentoring relationships* are hierarchical relationships characterized by lack of trust, dislike, and dissatisfaction with the relationship (Ragins, 2012). Unlike Young and Perrewé, I will examine both positive and negative mentor and protégé role behaviors within the same dyad to determine how mentoring experiences relate to mentor learning outcomes. By studying role behaviors, relationship quality, and mentor learning outcomes as distinct constructs, I will provide clarity and an avenue for future mentoring research.

Positive and Negative Role Behaviors

As outlined by the relational perspective to mentoring, mentoring relationships are made up of a series of mentoring experiences (Fletcher & Ragins, 2007; Ragins, 2012). While both protégés and mentors can encounter both positive and negative experiences within the same mentoring relationship, satisfying, high-quality (i.e., relational mentoring) relationships primarily result from positive experiences or behaviors within the mentoring relationship (Fletcher & Ragins, 2007). In contrast, dissatisfying or disappointing (i.e., dysfunctional) relationships primarily result from

negative experiences or behaviors (Chandler et al., 2011; Ragins & Verbos, 2007). Furthermore, Bandura (1977a) highlighted the importance of attention, or the extent to which we notice behavior, as important when considering how individuals respond to observed or experienced behavior. Where one negative experience may not result in a low-quality relationship, repeated negative experiences potentially draw attention to the behavior and influences subsequent behavior. Therefore, it is important to distinguish between distinct mentoring experiences and overall relationship assessments.

I posit that positive mentoring experiences can be represented by protégés' perceptions of their mentors' role behaviors and mentors' perceptions of their proteges' role behaviors. Both mentors and protégés typically have at least some idea of appropriate behaviors for the opposite partner for mentoring relationships (Fagenson-Eland et al., 1997; Young & Perrewé, 2000). Generally, protégés assume that mentors will serve an advisory role, providing career and psychosocial support (Young & Perrewé, 2000). Thus, *mentor positive role behavior* from the protégé's perspective is protégé evaluations of the mentor providing career and psychosocial support (e.g., Kram, 1983; Young & Perrewé, 2000). *Career support* is defined as the extent to which mentors provide mentoring functions associated with sponsorship, coaching, protection, exposure and visibility, and other vocational guidance to their protégés. Likewise, *psychosocial support* is defined as the extent to which mentors provide mentoring functions associated with role modeling, acceptance and confirmation, counseling, and friendship to their protégés.

Conversely, *mentor negative role behavior* from the protégé's perspective is defined as protégé perceptions that the mentor sometimes engages in unsatisfactory or

disappointing mentoring behaviors. Whereas researchers have identified five dimensions of negative experiences from the protégé's perspective (i.e., mismatch within the dyad, distancing behavior, manipulative behavior, lack of mentor expertise, and general dysfunctionality), I focus solely on the dimensions of negative mentoring experiences relating to suboptimal mentor role *behavior*. For example, the dimension "mismatch within the dyad" refers to differing values, work styles, and personality, and not mentor negative behavior.

From the mentor's perspective, *protégé positive role behavior* is "the extent to which a mentor perceived that the protégé engaged in career-related and social behaviors typical of a protégé" (Young & Perrewé, 2000, p. 619). Mentors expect protégés to be active participants of the mentoring relationship by paying attention to mentor advice, demonstrating sincere gratitude for the mentor's efforts, and engaging in self-improvement efforts (Eby, Durley, et al., 2008; Kram, 1985; Young & Perrewé, 2000).

In contrast, *protégé negative role behavior* from the mentor's perspective is the extent to which a mentor perceives that the protégé sometimes engages in unsatisfactory or disappointing mentoring behaviors. Researchers have identified three different dimensions of negative mentoring experiences from the mentor's perspective: protégé performance problems, interpersonal problems, and destructive relational patterns (Eby, Durley, et al., 2008; Eby & McManus, 2004). *Protégé performance problems* are defined as mentor perceptions that the protégé either does not want to learn or does not meet the mentors' performance expectations. Specific examples include protégé performing below expectations, protégé unwillingness to learn, and protégé difficulty at work due to self-destructive behavior. *Interpersonal problems* includes more serious relational issues,

including difficulty (i.e., conflicts or disagreements), spoiling (i.e., disloyalty or disappointment), benign deception (i.e., protégé impression management), protégé submissiveness, and general dysfunctionality (i.e., protégé personal problems interfere with the relationship). Specific examples include mentor-protégé conflicts, protégé impression management and gamesmanship, protégé submissiveness, and relationship deterioration. Finally, *destructive relational patterns* are made up of negative relations (i.e., protégé exploitation and egomania), malevolent deception (i.e., protégé lying), protégé sabotage, protégé harassment, and protégé jealousy and competition. Destructive relational patterns differ from interpersonal problems as they are generally more severe and include more intentional, vindictive behavior. Specific examples include breach of mentor trust, protégé exploitive behavior, protégé sabotage, jealousy and competitiveness, and protégé harassment (Eby, Durley, et al., 2008). Consistent with protégé perceptions of mentor negative role behavior, I focus on the subdimensions of mentor negative experiences relating to protégé *behavior*. For example, the subdimension “relationship deterioration” refers to a decrease in relationship quality and does not reflect protégé behavior.

For this study, I assess negative role behaviors from both the protégé and mentor perspectives as latent constructs with the various dimensions as reflective indicators. Additionally, as previously discussed, I focus specifically on role behavior items relating to mentor and protégé behavior and not on aspects of the experience that are dependent on the quality of the relationship (e.g., mentor-protégé conflict and relationship deterioration) to keep behaviors distinct from relationship quality.

Relationship Quality

As discussed, from a relational perspective, mentoring relationships range in quality from low-quality or dysfunctional mentoring relationships to high-quality or relational mentoring, with average or traditional mentoring relationships somewhere in the middle. Whereas mentor and protégé role behaviors impact relationship quality, relationship quality is distinct from behaviors, conceptualized as an affective assessment of the overall state of the relationship (Eby et al., 2010; Humberd & Rouse, 2010). Based on a relational mentoring perspective, positive role behaviors are positive mentoring experiences that contribute to high-quality mentoring relationships, and negative role behaviors are negative mentoring experiences that contribute to low-quality mentoring relationships. As suggested by previous researchers (e.g., Chandler et al., 2011; Eby et al., 2010; Ragins, 2012; Young & Perrewé, 2000), I expect that assessments of relationship quality rely on distinct mentoring experiences, with high-quality mentoring relationships resulting from repeated positive mentoring experiences and low-quality mentoring relationships resulting from primarily negative mentoring experiences. Therefore, I posit that:

Hypothesis 1a: Mentor's perception of protégé positive role behavior is positively related to relationship quality.

Hypothesis 1b: Protégé's perception of mentor positive role behavior is positively related to relationship quality.

Hypothesis 2a: Mentor's perception of protégé negative role behavior is negatively related to relationship quality.

Hypothesis 2b: Protégé's perception of mentor negative role behavior is negatively related to relationship quality.

Mentor Learning

SLT highlights the importance of both direct and vicarious experiences as avenues for learning (Bandura, 1971, 1977a), with both positive and negative experiences contributing to mentor learning. Based on SLT, mentors learn through two modes. The first mode includes acquiring knowledge through the direct experience of mentoring their protégés whereas the second mode includes learning vicariously by observing their protégés' behavior. As such, I propose that mentoring experiences with their protégés serve as both direct and vicarious experiences, leading to assessments of relationship quality and finally resulting in mentor learning in the form of mentoring self-efficacy and mentor behavioral change intentions and learning. Although this process likely cycles into the adaptation of behavior for a future experience, for the purpose of this study, I focus on a single learning process.

Furthermore, a relational mentoring perspective posits that mentors in a high quality mentoring relationship will experience increased relational competence due to their positive experiences with their protégés. As such, I expect that mentors in high-quality relationships will be more likely to have increased mentoring self-efficacy. Similar to leader self-efficacy (e.g., Chemers, Watson, & May, 2000; Courtright, Colbert, & Choi, 2014; Kane, Zaccaro, Tremble, & Masuda, 2002; Ng, Ang, & Chan, 2008; Seibert, Sargent, Kraimer, & Kiazad, 2016), *mentoring self-efficacy* is defined as the perceived capabilities of the mentor to effectively execute the necessary career and psychosocial support functions. Mentoring self-efficacy is a specific type of efficacy

perception focused on mentoring behaviors (Chen, Gully, & Eden, 2001; Chen, Gully, Whiteman, & Kilcullen, 2000). Bandura (1977b) suggested that self-efficacy stems from the cognitive appraisal of and an integration of various experiences, including performance accomplishments, vicarious experience, verbal persuasion, and physiological states. Self-efficacy varies as a result of learning, experience, or feedback (Gist & Mitchell, 1992). When mentors are in high-quality mentoring relationships, they will be more likely to have increased mentoring self-efficacy because they will feel increased competence, identity, and effectiveness in the role of mentor.

Hypothesis 3: Relationship quality is positively related to mentoring self-efficacy.

Previous research on mentor and protégé learning from mentoring focused on personal learning. *Personal learning* goes beyond gaining organizational, technical, and job-related skills and is defined as the acquisition of knowledge, skills, or competencies that are important for personal development (Kram, 1996). Personal learning is made up of relational job learning and personal skill development. Whereas relational job learning is the “understanding about the interdependence or connectedness of one’s job to others,” personal skill development is related to interpersonal skills and includes “communicat[ing] effectively, listen[ing] attentively, solv[ing] problems, and be[ing] creative in developing relationships with others in the organization” (Lankau & Scandura, 2002, p. 780).

Based on mentor observations and experiences, mentors will form models that will be tested in new situations (Bandura, 1971. 1977a). As such, I expect that mentors will develop behavioral change intentions for future mentoring based on their experiences with their protégés. *Mentor behavioral change intentions* are mentors’ motives to change

the way they act or achieve results (Webb & Sheeran, 2006). I expect that mentors will be more likely to change their behavior when the relationship is suffering rather than when it is thriving.

When individuals experience situations that are difficult to reconcile with their existing schemas (i.e., low-quality relationships), they will likely spend more time and effort making sense of these situations (Osterman, 1990) to determine a new course of action (Bandura, 1977a). When individuals experience these discrepancies or disruptions, they will actively engage in cognitive processes to assess the situation (Louis & Sutton, 1991). Additionally, failures or unexpected events “prompt an inner sense of discomfort and perplexity, which serves as a lever for change or stimulates growth” (Ellis et al., 2006, p. 670). When individuals perceive an experience as a failure, they will be motivated to determine how to correct the experience. Further, Sitkin (1992) suggested that organizations that promote intelligent failure, or learning from “experiencing falls and trying out new adjustments to try ‘not to fall’” (p. 236), enables learners to highlight issues with previous strategies and opens their minds to search for new solutions.

Consistent with these theoretical expectations, results from my pilot study suggested that negative mentoring experiences led to positive learning outcomes as mentors sought to determine how they could change for future mentoring relationships. Empirical research on individual learning following major life events, such as divorce, physical illness, and job loss also supports the notion that people learn more from negative experiences (e.g., Gaskins & Brown, 1992; Little, 1976; Nelson, 1989, 1994; O’Connor, Wicker, & Germino, 1990; Schlossberg & Leibowitz, 1980; Schwartzberg, 1994). These studies found that these major (negative) life events can lead to career and

personal growth (Latack & Dozier, 1986; Schaefer & Moos, 1992). Further, Eby (2007) suggested that high-cost mentoring relationships may actually lead to later perceptions of positive growth experiences. Thus, negative mentoring experiences may result in positive growth through behavioral change intentions and mentor learning.

Hypothesis 4: Relationship quality is negatively related to the amount of mentor's
a) behavioral change intentions and b) learning.

Moreover, consistent with a relational mentoring perspective and SLT, I expect that while relationship quality will be negatively related to the *amount* of behavioral change intentions and personal learning, mentors will still learn from both high- and low-quality relationships. Because learning is socially influenced, with interactions with others providing different contexts to meet individual learning needs (Jordan et al., 1991), I expect that high-quality mentoring relationships will also result in mentor learning, although the nature of mentor learning from high-quality mentoring relationships will be different from low-quality mentoring relationships. Therefore, I anticipate that relationship quality will result in different *types* of behavioral change intentions and learning outcomes. As such, I seek to broadly explore the research question:

What different types of learning and behavioral change intentions result from mentor perceptions of protégé positive and negative role behavior and their relationship quality?

The relational mentoring framework suggests that positive mentoring experiences contribute to high-quality mentoring relationships and negative mentoring experiences contribute to low-quality mentoring relationships (Fletcher & Ragins, 2007; Ragins, 2012). Additionally, SLT emphasizes the processes involved in thinking about

experiences and extracting knowledge from those experiences and observations. By using a combination of direct and vicarious observation, leading to an overall affective assessment of the relationship, mentors will determine what changes need to be made to the self and the relationship going forward to make this relationship better in the future. Furthermore, the relational mentoring perspective highlights the importance of social interaction for growth and learning, suggesting that individuals learn through relationships with others (Hall & Associates, 1996; Walsh et al., 1998). Therefore, the enactment of role behaviors affords mutual trust, liking, and overall satisfaction with the mentoring relationship which allows mentors to develop confidence in their mentoring skills. Conversely, the lack of trust and overall dissatisfaction with the relationship that results from negative role behaviors stimulates mentors to reflect on ways in which the relationship could have been improved. As such, role behaviors relate to mentor relational competence (i.e., mentoring self-efficacy) and mentor learning through relationship quality. Thus, I expect that in general, relationship quality mediates the relationships between protégé and mentor role behaviors and mentor outcomes.

Hypothesis 5: Relationship quality mediates the relations between protégé and mentor positive and negative role behavior and mentor outcomes.

In the following section, I introduce moderators for the relationships between relationship quality and mentoring self-efficacy, behavioral change intentions, and learning. Specifically, I expect that the relationships between relationship quality, mentoring self-efficacy, mentor behavioral change intentions, and mentor learning depends on whether or not mentors perceive themselves as the cause of relationship quality. As such, I explore mentors' internal attribution for relationship quality as an

important boundary condition for the relationship between relationship quality, mentoring self-efficacy, mentor behavioral change intentions, and learning. Additionally, I expect that the relationship between relationship quality and mentor learning depends on the extent to which mentors believe they can change their own mentoring ability, thus, I examine mentors' growth mindset as a moderator for the relation between relationship quality and mentor learning. Finally, I posit that feedback seeking moderates the relations between relationship quality and mentor behavioral change intentions and mentor learning.

Internal Attribution for Relationship Quality

Individuals tend to engage in an extensive search for why an outcome occurred after unexpected events (Hastie, 1984; Pyszczynski & Greenberg, 1981) and after a frustration or failure or experiencing an unexpected outcome (Wong & Weiner, 1981). Furthermore, Ellis and colleagues (2006) describe failures as “the fuel that intensifies cognitive processes that eventually affect behavior” (p. 670). Research on attributions suggests that individuals seek to pinpoint the cause of a behavior or event when deciding how to react (Heider, 1958; Kelley, 1967; Kelley & Michela, 1980; Martinko & Thomson, 1998; Weiner, 1985; Weiner, 2000). Consistent with attributional theories, of the 11 mentors interviewed in my pilot study, 8 tried to identify the causes of negative mentoring experiences. Therefore, I expect that mentors' causal attributions for relationship quality will affect the processes mentors undertake after the assessment of relationship quality.

Two primary models focus on attributional processes: Kelley's model focuses primarily on attributional formation; and Weiner's model focuses more on how these

attributions explain motivation and behavior. Based on the argument that both models “present different perspectives of the same fundamental process,” Martinko and Thomson (1998, p. 276) integrated the two perspectives to develop a comprehensive model of attributional processes. The authors suggested that the three dimensions from Kelley’s model (i.e., consensus or extent to which the outcome is common to others, consistency or extent to which the outcome happens on a regular basis, and distinctiveness or the extent to which the outcome occurs in a wide variety of situations) can be integrated with the three dimensions from Weiner’s model (i.e., causality or the extent to which the individual thinks the outcome was caused by the individual’s own action, stability or the extent to which the cause of the outcome changes over time, and globality or the level of generalizability across contexts). This integrated perspective posed that attributional processes can be viewed through a social (i.e., interpersonal) or an intrapersonal lens (Burton, Taylor, & Barber, 2014; Martinko & Thomson, 1998). While social attribution processes center on using different types of information for determining the cause of another person’s behavior (Kelley, 1967), intrapersonal attribution processes seek to determine the cause of a particular outcome a person receives. These attributions for success or failure subsequently influence the individual’s expectancies, affect, and behavior (Weiner, Nierenberg, & Goldstein 1976).

Drawing on intrapersonal attribution processes, Burton and colleagues (2014) explored how employees formed attributions for the perception that they had been abused. Similarly, Hershcovis and Barling (2010) examined causal attributions of workplace aggression and sexual harassment. Although abusive supervision and workplace aggression/sexual harassment could be described as negative behavior by the

abuser/harasser, these researchers were studying the recipients' perceptions of the behavior and therefore the cause of the particular outcome (i.e., abusive supervision or aggression/harassment) that the respondents received. Because I am also focusing on mentor perceptions of the cause of relationship quality, following Burton and colleagues (2014) and Hershcovis and Barling (2010), I focus on mentors' intrapersonal attribution processes for the quality of the mentoring relationship. This perspective relies on the assumption that relationship quality represents an outcome for which mentors form causal attributions. As accountability and responsibility have been shown to be functions of perceived intentionality and controllability (Perrewé & Zeller, 1999; Weiner, 1986), I specifically focus on the locus of causality and controllability dimensions (Weiner, 1979) to determine causal attributions for relationship quality. When a mentor perceives him/herself accountable or responsible for a low-quality relationship, the mentor will be more likely to engage in behavioral change intentions and learning.

The locus of causality dimension suggests that the cause is either internal (within) or external (outside) of the attributor. The stability dimension denotes whether the cause is either constant or changes over time, and the control dimension refers to whether or not the cause is controllable (McAuley, Duncan, & Russell, 1992). Consistent with these dimensions is the idea that internal causes include effort and ability (Perrewé & Zellers, 1999), suggesting that when outcomes are deemed internal and controllable, mentors perceive decreased effort as the cause. When mentors perceive lack of effort as the cause, they will be motivated to change their behaviors (Perrewé & Zellers, 1999), therefore increasing the amount of behavioral change intentions and mentor learning. Similarly, following Martinko and Thomson's model, perceptions of low consensus (internal), high

consistency (stable), and low distinctiveness (global) attributions typically results in individuals attributing the outcome to their own personality or ability. In other words, when individuals perceive that the outcome is not common to others, occurs regularly, and does not happen in a wide variety of contexts, they are likely to make an internal attribution for the outcome. Likewise, when mentors make *internal attributions for relationship quality*, they see themselves (i.e., mentor) as responsible for the outcome (Russell, 1982; Weiner, 1979). When mentors blame themselves for the (low) relationship quality, they will be more likely to change their behavior and learn from the mentoring experience.

Conversely, external attributions result from employee perceptions of high consensus (external), high consistency (stable), and high distinctiveness (specific). Mentors who make *external attributions for relationship quality* see the protégés or the context as responsible for the outcome (Russell, 1982; Weiner, 1979). When mentors make external attributions for low-quality relationships, they will be unlikely to spend a lot of time changing their behavior or learning from the experience because they believe that external factors are at fault. As such, I expect that internal attribution for relationship quality moderates the relation between relationship quality and the amount of mentor behavioral change intentions and mentor learning.

Hypothesis 6: Internal attribution for relationship quality moderates the negative relation between relationship quality and amount of mentor's a) behavioral change intentions and b) learning such that the negative relation will be stronger when internal attribution is high, and weaker when internal attribution is low.

In contrast, I expect that internal attribution for relationship quality can strengthen the positive relation between relationship quality and mentoring self-efficacy. Cognitive appraisals of effort and ability will influence efficacy perceptions (Bandura, 1986). When internal attributions are made for failures, individual self-perceptions suffer (Bandura, 1997; Schunk & Rice, 1986), however, when internal attributions are made for successes, individuals' self-perceptions are positively affected (Tolli & Schmidt, 2008). Conversely, when external attributions are made for successes, individuals will be unlikely to experience the same positive outcomes as they do not see themselves as responsible for the success. Consistent with this view, Tolli and Schmidt (2008) found that internal attributions for positive feedback increased self-efficacy, as individuals perceived that they were capable of future success (Bandura, 1997). As such, I expect that when mentors perceive that they are responsible for high-quality relationships, they will experience increased self-efficacy.

Hypothesis 7: Internal attribution for relationship quality moderates the positive relation between relationship quality and mentoring self-efficacy such that the positive relation will be stronger when internal attribution is high, and weaker when internal attribution is low.

Growth Mindset

A relational mentoring perspective suggests that individuals who can “step away from the expert role in order to be influenced by and learn from others” (Fletcher, 1996, p. 115) are mentors who are likely to learn from mentoring relationships. While the student or protégé grows due to the purpose of the mentoring relationship (e.g., to develop protégés), mentors are able to develop when they believe that they have the

ability to learn and develop as a mentor. Drawing on the idea that individuals have implicit theories regarding human attributes, Dweck and Leggett (1988) suggested that depending on whether individuals have a fixed (i.e., entity implicit theory) or growth mindset (i.e., incremental implicit theory) may help explain why individuals respond to experiences in different ways. Individuals who hold a fixed mindset (i.e., low growth mindset) believe that specific attributes such as intelligence or morality are unable to be changed and when faced with a negative outcome, are able to blame their failure on that fixed attribute (Dweck, Chiu, & Hong, 1995). For example, when mentors hold a fixed mindset (i.e., are low in growth mindset) about their own mentoring ability and are in a low-quality relationship, they are likely to believe that no matter what they do or how much effort they put forth, they will not be able to improve their mentoring ability. Consequently, these mentors will not explore and identify the various ways in which they can improve their mentoring. Conversely, individuals who hold a growth mindset believe that specific attributes such as mentoring ability are malleable, and that increased effort will result in a more favorable outcome (Dweck & Leggett, 1988; Vandewalle, 2012). When mentors are high in growth mindset, a low-quality mentoring relationship signals the need to identify a new strategy for improving mentoring ability. These mentors will be more likely to exert effort to determine what went wrong in the relationship and identify areas of future development. Thus, I expect that when mentors are high in growth mindset, they will be more likely to learn from a low-quality mentoring relationship.

Hypothesis 8: Growth mindset moderates the negative relation between relationship quality and amount of mentor's learning such that the negative

relation will be stronger when mentors are high in growth mindset, and weaker when mentors are low in growth mindset.

Feedback Seeking

Following SLT, in order for individuals to learn from their own and others' experiences, they must be made aware of the relationship between behavior and outcomes of that behavior (Bandura, 1986). Dewey (1938) further highlighted the importance of gathering information and advice about previous experiences and determining how veteran individuals responded in similar situations for the learning process. Similarly, mentors may use observations from their environment or consult others to gain feedback on their mentoring performance. A couple mentors from my pilot study described seeking feedback from others when determining how to respond to disappointing protégé decisions. Feedback provides the evidence needed to assess competence (Ashford & Cummings, 1983). Therefore, *feedback seeking* is defined as “conscious devotion of effort toward determining the correctness and adequacy of behaviors for attaining valued end states” (Ashford, 1986, p. 466). Feedback seeking can be conducted through *inquiry*, which includes actively questioning relevant organizational members for information, or *monitoring*, which involves actively observing situational cues, other individuals, and how others respond to their behavior for relevant information (Ashford & Cummings, 1983). In the context of my study, feedback seeking behavior functions as a critical component of SLT that involves making individuals aware of problems and successes in a relationship and “serve[s] as an unarticulated way of informing performers what they must do in order to gain beneficial

outcomes or to avoid punishing ones” (Bandura, 1971, p. 3). Mentors who seek feedback from others are likely to use this information as guidance for future mentoring behavior.

Previous research on feedback seeking demonstrates that feedback seeking is important for facilitating newcomer adjustment, impression management, dealing with uncertainty, and most recently, as an aid to learning (Ashford, Stobbeleir, & Nujella, 2016). In my pilot study, some mentors described adapting their mentoring style and relational skills when they sought feedback from coworkers and supervisors after their protégés made a disappointing career decision. As such, I expect that feedback seeking will strengthen the negative relation between relationship quality and mentor behavioral change intentions and mentor learning. In other words, when mentors are in a low-quality relationship and engage in higher levels of feedback-seeking, they will be more likely to change their behavior and learn from low-quality relationships. Conversely, mentors who engage in lower levels of feedback seeking will be less likely to change their behavior or learn from low-quality mentoring relationships.

Hypothesis 9: Feedback seeking moderates the negative relation between relationship quality and a) mentor behavioral change intentions and b) mentor learning such that the relation will be stronger when feedback seeking is high and weaker when feedback seeking is low.

In sum, using a relational mentoring lens coupled with SLT, I expect that protégé and mentor perceptions of the opposite partner’s role behavior will be positively related to relationship quality. Conversely, I expect that protégé and mentor perceptions of negative role behavior will be negatively related to relationship quality. Relationship quality will be positively related to mentoring self-efficacy and negatively related to the

amount of behavioral change intentions and mentor learning. Internal attribution for relationship quality, growth mindset, and feedback seeking will moderate the relations between relationship quality and mentor outcomes. In Chapter IV, I outline my proposed methods for testing the hypothesized model.

CHAPTER IV. SCALE VALIDATION STUDY

Method

Prior to conducting the primary study to test my hypotheses, I conducted a scale validation study to develop and evaluate new measures of protégé positive role behavior, protégé negative role behavior, and relationship quality following Hinkin (1998) and DeVellis (2011). First, I sent the proposed items for mentor perceptions of protégé positive and negative role behavior and relationship quality to 52 subject matter experts for content validation. Second, using a sample from Qualtrics Panels, I conducted exploratory factor analyses with the retained items. With the Qualtrics Panels sample, I also compared the new items to measures of career and psychosocial support given.

Sample and Data Collection

For the first step of my scale validation, I sent three pools of items to three different groups of subject matter experts (SMEs) comprised of mentoring researchers who have published extensively in the mentoring domain and University of Iowa PhD students and alumni. The first survey included potential protégé positive and negative role behavior items. Of the 18 SMEs who received the invitation, 12 completed the survey (66% response rate). The second survey included protégé positive role behavior and relationship quality items and was sent to 27 SMEs. I received responses from 10 SMEs (37% response rate). Finally, the third survey included protégé negative role behavior and relationship quality items. Of the 27 SMEs who received the invitation, 12 completed the survey (44% response rate).

For the next step of the scale validation process, I used Qualtrics Panels, an online survey response panel, to gather data for an exploratory factor analysis. Qualtrics Panels

emailed surveys to qualified mentors. In the survey, the following definition was displayed,

“Mentors are persons usually considered more experienced, who support, train, or ‘teach the ropes to’ others as they pursue their career goals. Although a manager/supervisor can be a mentor, a mentor does not have to involve a day-to-day formal supervisory relationship. Those that they mentor are usually referred to as ‘protégés.’ Example mentoring behaviors include introducing your protégé to others within the organization, listening to the protégé’s career or personal problems or challenges, sharing your own career or personal stories with the protégé, and/or providing career guidance to the protégé.”

In the survey after the definition, respondents who ticked “yes” to the question, “Are you currently a mentor?” were deemed eligible for the study. Respondents received compensation in the form of electronic points equivalent to \$6 in charity donations, gift cards, and other prizes. All items retained from the content validation step were included at one time period. Due to the nature of how Qualtrics recruits participants, I was unable to calculate the exact response rate. However, 627 started the survey, and 367 were eliminated due to lack of eligibility. Additionally, 45 were eliminated for failing to pass the two attention checks, 1 participant was removed for random responding, and 3 participants were removed because they indicated they worked with between 250 and 10,000 protégés which would make it difficult for them to answer based on one specific protégé. Due to missing variables, 1 participant was removed. Finally, no participants were eliminated for completing the survey in less than one-third of the average time for survey completion. The final sample size was 210 (33% of those who started).

The final sample consisted of 64% females with an average age of 36. In terms of education, 7.1% had completed high school, 21.9% attended some college or had an associate's degree, 42.9% had a bachelor's degree, and 28.1% had a master's degree or higher. The average job tenure was just over 6 years. The average relationship tenure was 3.5 years with participants having experience mentoring an average of 5 protégés. The participants were 71.9% white, 10% Hispanic, 9.5% Asian, 7.6% black, and 1% other races.

Measures

Mentors rated protégé positive and negative role behavior, relationship quality, and mentoring support given at one time period. Participants were asked to indicate their agreement on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) unless otherwise indicated. All items were averaged to create a single score. The full list of items used for the scale validation study is listed in Appendix B.

Protégé positive role behavior. I searched the literature for appropriate items representing mentor perceptions of protégé positive role behavior. Measures relating to positive mentoring experiences often confound the positive experience with outcomes (e.g., Ragins, 2012; Ragins & Scandura, 1999) or focus on protégé outcomes (Sosik, Godshalk, & Yammarino, 1997). Other measures focus on the quality of the mentoring relationship (e.g., Allen & Eby, 2003). However, while Young and Perrewé's (2000, 2004) measure of protégé role behavior from the mentor's perspective included some items that tapped into mentor perceptions of positive role behaviors (e.g., "My protégé puts forth effort in attending functions as requested" and "My protégé interacts with me on a personal level"), I wanted to develop a more representative measure. To develop an

initial item pool for a protégé positive role behavior, I selected items relating to protégé behavior from multiple sources. In addition to the 12 items from Young and Perrewé's measure of protégé role behavior, I created one item based on Allen, Poteet, and Burrough's 1997 content analysis identifying "Individual Reasons for Mentoring" and three items based on the definition of what protégés are expected to do presented in Eby, Durley, and colleagues (2008), which was based on research by Kram (1985) and Young and Perrewé (2000).

Protégé negative role behavior. While negative mentoring experiences from the mentor's perspective have been measured using the brief measure of negative mentoring experiences developed by Eby, Durley, and colleagues (2008), many of these items focus on the mentor-protégé relationship rather than just protégé negative behavior. For the purposes of this dissertation, I focus solely on protégé behavior perceived negatively by the mentor. Thus, for my initial item pool, I removed all items relating to the mentor and protégé relationship (e.g., "My protégé and I have conflicting personalities" and "I feel that our relationship is not as satisfying as it used to be") and any items related to protégé attitudes (e.g., "My protégé has a self-serving attitude" and "My protégé is jealous of my work accomplishments"). Furthermore, I removed any items that related to behavior outside of work (e.g., "I worry that my protégé has a substance abuse problem") and items relating to harassment (e.g., "My protégé gives me unwanted sexual attention"). Additionally, based on my pilot study interviews, I developed three items focused on disappointing career decisions (e.g., "My protégé does not want to advance in his/her career" and "My protégé has made some career decisions that disappointed me").

Relationship quality. Initial items included four items adapted from Wayne and Ferris's (1990) measure of affect in supervisor-subordinate relationships (e.g., "I like my protégé (mentor) very much"); 11 items from the shared influence, respect, trust and commitment, and communal norms dimensions of Ragins (2012) relational mentoring index (e.g., "My protégé (mentor) and I respect each other"); four items from Eby and Allen's (2003) relationship quality index (e.g., "Our mentoring relationship is very effective"); and one item from Norton's Quality of Marriage Index (QMI; Norton, 1983) ("We have a good relationship").

Mentoring support given. Mentoring support given was measured in the scale validation study only by mentors using the eight items for career support and 10 items for psychosocial support from Dreher and Ash (1990). Respondents were asked to rate the extent to which they gave the following support to their protégés in the previous three months on a scale from 1 (*not at all*) to 5 (*to a very large extent*). Sample career items include "Given or recommended your protégé for challenging assignments that present opportunities to learn new skills?" and "Given or recommended your protégé for projects that required personal contact with managers in different parts of the company?" Sample psychosocial items include "Encouraged your protégé to talk openly about anxiety and fears that detract from work?" and "Shared your career history with your protégé?." Mentoring support given was assessed as a latent construct with the two dimensions as reflective indicators ($\alpha = .92$).

Results

Content Validation

As suggested by DeVellis (2011) and Hinkin (1998), subject matter experts evaluated protégé positive and negative role behavior and relationship quality items by indicating the construct it best reflected (a categorical response option) and the relevance of that item to that construct on a scale of 1 (*not at all relevant*) to 4 (*very relevant*). Because items were all pulled from previous measures, SMEs did not assess item clarity or conciseness. Open ended comments were encouraged and included in 62% of responses. In the first survey, SMEs were given definitions of protégé positive and negative role behavior. In the second survey, SMEs were given definitions of of protégé positive role behavior and relationship quality, and in the third survey, SMEs were given definitions of protégé negative role behavior and relationship quality. Items were evaluated within each individual survey and then compared for agreement across surveys. If an item was identified as “retain” in both surveys, then the item was retained. If an item was deemed as “drop” in both surveys, the item was dropped. Within each survey, items were categorized as “drop” if there was less than 90% agreement on the construct, or if average relevance was below 3.00. Any items with less than 100% agreement or mean relevance between 3.00 and 3.50 was tagged as “review.” Items were categorized as “retain” if they had 100% agreement and mean relevance was above 3.50. Any item with disagreement was scrutinized closely to determine the final decision. All open comments were considered and items revised as necessary.

After the content validation portion, two items were retained without revision for the protégé positive role behavior measure, eight items for the protégé negative role

behavior measure, and 10 items for the relationship quality measure. In total, nine items from the protégé positive role behavior, 10 items from the negative role behavior, and 10 items from the relationship quality measures were dropped. For the protégé positive role behavior measure, five items were revised and three items were added for a total of 10 items. For the protégé negative role behavior measure, five items were revised and one item added for a total of 14 items. Finally, for the relationship quality measure, no items were revised or added for a total of 10 items. These items along with career and psychosocial support were tested with the Qualtrics Panels sample.

Dimensionality

With the Qualtrics Panels sample, I conducted a principal axis factor analysis with oblique rotation (Promax) for the 34 retained items. Based on the Kaiser 1 (Kaiser, 1960) and scree test (Cattell, 1966), five factors were extracted. Factor 1 contained the first 14 protégé negative role behavior items and explained 43.43% of the variance (*eigenvalue* = 14.77). Factor 2 was comprised of the 10 relationship quality items and explained 19.08% of the variance (*eigenvalue* = 6.49). Factor 3 contained 8 of the 10 protégé positive role behavior items and explained 5.39% of the variance (*eigenvalue* = 1.83). Factor 4 contained three protégé negative role behavior items, but had cross-loadings with factor 1. Factor 4 explained 4.08% of the variance (*eigenvalue* = 1.39). Finally, factor 5 contained two protégé positive role behavior items and explained 3.00% of the variance (*eigenvalue* = 1.02). All factor loadings are reported in Table 2.

Table 2. Exploratory Factor Analysis of Protégé Negative Role Behavior, Protégé Positive Role Behavior, and Relationship Quality

Item	1	2	3	4	5
My protégé tries to sabotage me at work.	.97	.01	-.03	-.18	.09
My protégé tries to damage my reputation at work.	.96	-.003	-.04	-.12	.13
My protégé has deceived me.	.95	.13	.02	.07	-.02
My protégé attempts to “get back” at me.	.93	-.04	.01	-.19	.15
My protégé sometimes distorts the truth.	.90	.10	.03	.15	-.08
My protégé has misled me.	.89	.10	.01	.09	-.14
My protégé seeks advice from others when s/he doesn’t agree with me.	.79	-.05	-.01	.03	.03
My protégé does not seem willing to learn from me.	.76	-.11	-.09	.10	-.08
My protégé does not listen to my advice.	.74	.07	-.08	.52	.08
My protégé does not seem interested in learning better ways of doing things from me.	.70	-.16	.01	.25	-.06
My protégé is reluctant to change his/her behavior in response to my feedback.	.70	.002	-.06	.53	.13
My protégé’s performance does not meet my expectations.	.65	-.07	.11	.39	-.17
My protégé does not do high quality work, even though s/he has the skills and knowledge to do so.	.64	-.05	.13	.28	-.23
My protégé has performance problems on the job which have not improved since we started working together.	.60	-.10	.02	.49	.07
My protégé and I trust each other.	.10	.97	-.04	-.07	-.08
My protégé and I enjoy a high-quality relationship.	.14	.90	.10	-.11	-.12
My protégé and I respect each other.	-.004	.87	.17	.05	-.19
I like my protégé very much.	-.08	.84	-.13	.29	.18
I get along well with this protégé.	-.10	.82	.10	.06	-.11
My protégé and I have a good relationship.	-.11	.81	-.03	.24	.22
Mentoring this protégé is a pleasure.	.002	.81	-.06	-.21	-.05

Table 2, continued.

Item	1	2	3	4	5
I am very satisfied with our mentoring relationship.	-.02	.77	.06	-.23	-.05
Our mentoring relationship is very effective.	.12	.72	.07	-.27	.09
My protégé and I are committed to the relationship.	-.09	.68	.05	.08	.11
My protégé requests my advice or information on projects or strategies to enhance his/her ability to achieve objectives, recognition, or career aspirations.	-.01	-.001	.74	-.04	.07
My protégé accepts or requests projects from me, which enhance his/her technical knowledge.	-.04	-.02	.68	.01	-.03
My protégé discusses any concerns or problems with me which may hinder his/her success.	.01	.01	.66	.03	.07
My protégé seeks my advice on risky projects before problems arise or provides me with information about current projects which may be problematic.	.08	.07	.66	-.07	.04
My protégé asks for my feedback relevant to self-improvement goals.	-.002	.02	.64	-.09	.11
My protégé asks for my advice.	.004	.09	.63	-.03	.06
My protégé heeds my advice.	-.01	.01	.46	.20	.37
My protégé demonstrates appreciation for my guidance.	-.05	.11	.42	-.04	.29
My protégé informs me when s/he follows through on suggestions.	-.05	-.13	.36	.06	.69
My protégé takes the initiative to schedule time to get together.	.04	.14	.27	.04	.47

n = 210. Factor 1 = protégé negative role behavior, factor 2 = relationship quality, factor 3 = protégé positive role behavior, factor 4 = protégé negative role behavior, factor 5 = protégé positive role behavior. Items in bold were retained after the first round.

Hinkin (1998) advised, “At this stage, inappropriately loading items can be deleted, and the analysis repeated, until a clear factor structure that explains a high percentage of total item variance is obtained” (p. 112). Thus, any items that did not load on the appropriate factor or had cross-loadings greater than .40 were removed after the initial factor analysis. Thus, the protégé negative role behavior items, “My protégé has performance problems on the job which have not improved since we started working together,” “My protégé is reluctant to change his/her feedback in response to my feedback,” and “My protégé does not listen to my advice” were all removed. The two protégé positive role behavior items, “My protégé takes the initiative to schedule time to get together” and “My protégé informs me when s/he follows through on suggestions” were both removed. After removing these five items, I reran the analysis. Both the Kaiser 1 and scree test clearly demonstrated that three factors be retained, therefore, I retained three factors. Factor 1 contained the 11 protégé negative role behavior items and explained 44.03% of the variance (*eigenvalue* = 12.77). Factor 2 was comprised of the 10 relationship quality items and explained 20.65% of the variance (*eigenvalue* = 5.99). Factor 3 contained the eight protégé positive role behavior items and explained 5.89% of the variance (*eigenvalue* = 1.71). In this second round, I sought to reduce participant burden and retain eight items for each measure and thus dropped items with lower factor loadings or if they had overlapping concepts. In the protégé negative role behavior measure, the item, “My protégé does not do high quality work, even though s/he has the skills and knowledge to do so” had the lowest factor loading and was dropped. The items, “My protégé sometimes distorts the truth” and “My protégé attempts to ‘get back’ at me” overlapped with other items representing the same factor and thus were dropped. In the

relationship quality measure, the item, “My protégé and I are committed to the relationship” had the lowest factor loading and was removed. The item, “My protégé and I respect each other” had the third lowest factor loading and was questioned in the open-ended comments, so I removed this item. All factor loadings are reported in Table 3.

Table 3. Exploratory Factor Analysis of Protégé Negative Role Behavior, Protégé Positive Role Behavior, and Relationship Quality

Item	1	2	3
My protégé has deceived me.	.98	.14	-.01
My protégé tries to sabotage me at work.	.96	.10	.04
My protégé tries to damage my reputation at work.	.96	.09	.02
My protégé has misled me.	.92	.05	-.04
My protégé sometimes distorts the truth.	.92	.05	-.003
My protégé attempts to “get back” at me.	.92	.06	.09
My protégé seeks advice from others when s/he doesn’t agree with me.	.81	-.02	.00
My protégé does not seem willing to learn from me.	.78	-.14	-.12
My protégé does not seem interested in learning better ways of doing things from me.	.73	-.22	-.04
My protégé’s performance does not meet my expectations.	.69	-.20	.01
My protégé does not do high quality work, even though s/he has the skills and knowledge to do so.	.68	-.18	.03
My protégé and I trust each other.	.09	.98	-.09
My protégé and I enjoy a high-quality relationship.	.14	.89	.07
Mentoring this protégé is a pleasure.	-.01	.86	-.07
I am very satisfied with our mentoring relationship.	-.02	.83	.06
Our mentoring relationship is very effective.	.10	.82	.12
I like my protégé very much.	-.07	.79	-.07
My protégé and I have a good relationship.	-.12	.79	.02
My protégé and I respect each other.	-.01	.78	.10
I get along well with this protégé.	-.10	.77	.03

Table 3, continued.

Item	1	2	3
My protégé and I are committed to the relationship.	-.07	.69	.08
My protégé requests my advice or information on projects or strategies to enhance his/her ability to achieve objectives, recognition, or career aspirations.	-.003	-.03	.80
My protégé asks for my feedback relevant to self-improvement goals.	-.02	.02	.72
My protégé seeks my advice on risky projects before problems arise or provides me with information about current projects which may be problematic.	.07	.04	.72
My protégé discusses any concerns or problems with me which may hinder his/her success.	.03	-.02	.70
My protégé accepts or requests projects from me, which enhance his/her technical knowledge.	-.01	-.08	.70
My protégé asks for my advice.	.01	.07	.68
My protégé heeds my advice.	.00	.06	.57
My protégé demonstrates appreciation for my guidance.	-.07	.18	.54

n = 210. Factor 1 = protégé negative role behavior, factor 2 = relationship quality, factor 3 = protégé positive role behavior. Items in bold were retained after the second round.

After dropping all items, the new protégé negative role behavior, protégé positive role behavior, and relationship quality measures all reached acceptable reliability ($\alpha = .96$, $\alpha = .88$, and $\alpha = .95$, respectively).

Convergent and Discriminant Validity Analysis

As part of the validation process, I compared the new protégé positive and negative role behavior to the new relationship quality measure. I also compared the new relationship quality measure to mentoring support given. These measures should be theoretically related to role behavior and relationship quality, but not identical. Specifically, based on previous research (e.g., Eby, Durley, et al., 2008; Eby et al., 2010; Young & Perrewé, 2000), protégé positive role behavior should be positively related to relationship quality, whereas protégé negative role behavior should be negatively related to relationship quality. Finally, mentoring support given should be positively related to relationship quality (cf., Eby et al., 2010; Young & Perrewé, 2000).

Table 4 contains means, standard deviations, and intercorrelations for study variables in the scale validation study. To examine convergent and discriminant validity of the new measures, the relationships among protégé role behavior, relationship quality, and mentoring support given were examined. Protégé positive role behavior had positive correlations with relationship tenure ($r = .19, p = .01$), relationship quality ($r = .63, p = .00$), and mentoring support given ($r = .58, p = .00$), and a negative correlation with protégé negative role behavior ($r = -.18, p = .01$). Protégé negative role behavior had positive correlations with gender (1 = male, 0 = female; $r = .16, p = .02$) and relationship tenure ($r = .21, p = .00$) and was negatively correlated with relationship quality ($r = -.42, p = .00$). Finally, mentoring support given was also positively correlated with relationship

tenure ($r = .24, p = .00$) and relationship quality ($r = .41, p = .00$). Results of the regression analyses are reported in Table 5. I found that protégé positive role behavior had a positive relationship with relationship quality after controlling for gender, age, relationship tenure, and protégé negative role behavior ($\beta = .56, p = .00$) and protégé negative role behavior had a negative relationship with relationship quality ($\beta = -.32, p = .00$). Interestingly, after controlling for age, gender, relationship tenure, and protégé positive and negative role behavior, mentoring support given did not relate to relationship quality ($\beta = .12, p = .06$) suggesting that mentor self-reports of their own mentoring support given does not have an effect on mentor assessments of relationship quality beyond mentor perceptions of protégé positive and negative role behavior. In general, because the relationships between protégé positive and negative role behavior and relationship quality are in the expected directions, I found evidence of convergent and discriminant validity. Thus, I have support to justify using the new measures in my primary study.

Table 4. Means, Standard Deviations, and Intercorrelations of Scale Validation Variables

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Age	36.17	9.88	-							
2. Gender ^a	.36	.48	.06	-						
3. Relationship tenure	3.52	8.25	.19**	.02	-					
4. Education	2.94	.93	-.03	-.08	-.16*	-				
5. PPRB	3.99	.69	.002	-.07	.19**	.05	-			
6. PNRB	1.47	.83	-.11	.16*	.21**	.03	-.18**	-		
7. Relationship quality	4.36	.72	.08	-.08	.09	.01	.63**	-.42**	-	
8. Mentoring support given	3.78	.65	-.04	-.06	.24**	.07	.58**	-.02	.41**	-

Note. $n = 210$. ^a1 = male, 0 = female; Education: 1 = high school, 2 = some college/associate's degree, 3 = bachelor's degree, 4 = master's or law degree, 5 = PhD/DBA or MD/DDS/DVM; PPRB = protégé positive role behavior; PNRB = protégé negative role behavior; Relationship tenure is measured in years.

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

Table 5. Regression Analyses for Scale Validation Study

Independent Variable	Relationship Quality	
	Step 1	Step 2
Gender	-.01	.01
Age	-.01	.03
Relationship tenure	.19**	.04
Protégé negative role behavior	-.45**	-.32**
Protégé positive role behavior		.56**
R ²	.21	.49
ΔR ²	.21**	.28**
Model F	13.20**	38.97**
Gender	-.04	.01
Age	.09	.03
Relationship tenure	-.05	.04
Protégé positive role behavior	.63**	.56**
Protégé negative role behavior		-.32**
R ²	.40	.49
ΔR ²	.40**	.09**
Model F	34.30**	38.97**
Gender	.01	.01
Age	.03	.04
Relationship tenure	.04	.03
Protégé positive role behavior	.56**	.50**
Protégé negative role behavior	-.32**	-.33**
Mentoring support given		.12
R ²	.49	.50
ΔR ²	.49**	.01
Model F	33.46**	33.46**

Note. $n = 210$. Standardized beta coefficients are reported.

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

CHAPTER V. PRIMARY STUDY METHOD

After validating the protégé positive and negative role behavior and relationship quality measures, I began data collection for my primary study. I conducted a parallel/simultaneous mixed methods field study in an academic setting with professors and their PhD student protégés. A parallel/simultaneous mixed method design involves collecting quantitative and qualitative data at the same time (Tashakkori & Teddlie, 1998), often conducting data analysis after the data have been collected rather than an iterative approach common with qualitative methods (Onwuegbuzie & Teddlie, 2003). The quantitative technique was the dominant approach. After identifying interested professors (mentors), I asked mentors to provide contact information for their students (protégés).

Both quantitative and qualitative data were collected via survey. The surveys were distributed electronically through email. Surveys were time-lagged with three waves over a four month period. A four month period helped reduce common method bias by separating measures across time (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), but allowed me to complete the data collection in a timely manner in order to meet graduation deadlines. On the mentor survey at Time 1, I collected demographic information, control variables, protégé positive and negative role behavior, mentoring self-efficacy, and relationship quality. Respondents were asked to answer mentoring questions with respect to a specific protégé who they were currently mentoring. If they mentored multiple students, I asked respondents to answer the questions in relation to the protégé with whom they had the newest relationship. Mentors were instructed to pick a student they had mentored for at least six months and planned to continue mentoring for

at least four months. At Time 1, protégés reported mentor positive and negative role behavior, demographic information, and control variables. Potential control variables included years of mentoring experience (mentor and protégé survey), length of mentoring relationship (mentor survey), trait negative affect, openness to experience, extraversion, agreeableness (mentor), and mismatch within dyad (protégé survey). At Time 2, administered one month later, I collected relationship quality and leader-member exchange from both the mentor's and protégé's perspective. Additionally, I collected mentors' internal attribution for relationship quality, feedback seeking, growth mindset, mismatch within the dyad, and questions about the structure of the mentoring program. I also collected protégé reports of mentor positive role behavior and asked whether or not protégés were allowed to pick their mentor. At Time 3, administered one month after the second wave, I collected protégé-reports of relationship quality, mentor learning/improvement, and mentor positive role behavior and mentor-reports of mentoring self-efficacy, relationship quality, qualitative and quantitative responses to mentor behavioral change intentions and learning, internal attribution for relationship quality, and feedback seeking. Details on the proposed sample, data collection, and analysis are outlined in the following sections. A timeline of my data collection is included in Table 6.

Table 6. Data Collection Timeline

<p style="text-align: center;">Time 1 Late August/September 2016</p>	<p style="text-align: center;">Time 2 October 2016</p>	<p style="text-align: center;">Time 3 November 2016</p>
<p><i>Mentor Survey</i></p> <ul style="list-style-type: none"> Protégé positive role behavior^a Protégé negative role behavior Demographics^a Mentoring experience^a Trait negative affect^a Openness to experience Extraversion^a Conscientiousness^a Agreeableness^a Emotional stability Career mentoring self-efficacy Psychosocial mentoring self-efficacy Relationship quality 	<p><i>Mentor Survey</i></p> <ul style="list-style-type: none"> Relationship quality^a Internal attribution for relationship quality^a Feedback seeking^a Growth mindset^a Mismatch within dyad^a Leader-member exchange 	<p><i>Mentor Survey</i></p> <ul style="list-style-type: none"> Career mentoring self-efficacy^a Psychosocial mentoring self-efficacy^a Mentor quantitative behavioral change intentions Mentor withdrawal Mentor qualitative behavioral change intentions^a Mentor quantitative personal learning Mentor quantitative general learning Mentor qualitative learning^a Relationship quality Internal attribution for relationship quality
<p><i>Protégé Survey</i></p> <ul style="list-style-type: none"> Mentor positive career behavior^a Mentor positive psychosocial behavior^a Mentor negative role behavior^a Demographics Mentoring experience Mismatch within dyad 	<p><i>Protégé Survey</i></p> <ul style="list-style-type: none"> Relationship quality Mentor positive role behavior Leader-member exchange 	<p><i>Protégé Survey</i></p> <ul style="list-style-type: none"> Mentor learning/improvement Relationship quality Mentor positive role behavior

^aMeasures used for hypothesis testing.

To increase my response rate for each wave, I contacted participants who did not reply to the survey at one week after distribution of the survey and then again at two weeks (Dillman, 2000). To further increase the response rate, I sent \$10 Tango gift cards to participants who completed all three surveys and \$5 Tango gift cards to participants who completed the Times 1 and 3 surveys.

Sample

My population was professors who worked in North American doctoral granting universities and the PhD students they mentored. I recruited from the schools of Liberal Arts (Psychology, Sociology, and Political Science departments), Business, Education, and Engineering in 15 universities, mostly in Eastern, Midwestern, and Southern USA. I pulled email addresses from university websites and emailed potential professor participants directly. After identifying interested professors, I asked professors if they would be willing to send a recruitment email to their students. Those who agreed were sent a separate recruitment email to send to their students.

Of the 5,883 invited professors, 590 responded (10.0%), however some were either ineligible (63), did not complete the survey (131), or failed the attention filters (29). After eliminating these participants, the final sample size was 371 (62.9% of the mentors who responded; 6.3% of all invited professors). From these participants, 236 (63.6%) agreed to send invitations to their student protégés. I sent emails to these professors to forward to their students and 145 students responded (61.4%) to the Time 1 survey. Of these initial respondents, seven did not complete the survey and two protégés were mentored by the same mentor. These participants were dropped for a final Time 1 protégé sample size of 136.

For the Time 2 survey, invitations were sent directly to professors and PhD students who provided their email addresses and agreed to participate. Of the 371 eligible professors, 311 responded to the Time 2 mentor survey (83.8%) with 264 complete responses (71.2%). Of the 136 potential protégés, 123 students responded to the Time 2 protégé survey (90.4%) with 115 complete responses (84.6%). All Time 1 respondents received the Time 3 survey. For the mentor survey, 303 of 371 responded (81.7%) with 269 total complete responses (72.5%). Of the 136 eligible protégés, 118 responded (86.8%) with 113 complete responses (83.1%). To be eligible for inclusion in hypothesis testing, mentors had to complete surveys for Times 1, 2, and 3 and have a matching protégé response at Time 1. After removing all missing data and random respondents (i.e., those who did not correctly respond to the attention filters), the final sample size was 98 mentor-protégé dyads.

Mentor respondents were from 15 universities within a variety of disciplines, including Liberal Arts (40.8%), Business (9.2%), Education (38.8%), and Engineering (11.2%). Mentors were 59.2% female with an average age of 49. In terms of rank, 15.3% were assistant professors, 31.6% were associate professors, 41.8% were full professors, and 11.2% were chaired professors. Mentors were 82.7% white, 7.1% Hispanic, 4.1% Asian, 3.1% black, and 3.1% other. On average, mentors had 13 years and 3 months of mentoring experience and currently mentored 4 protégés.

Protégés were 64.3% female with an average age of 30. Most protégés (94.8%) were full-time students with 27.8% in the initial stages of the program (i.e., in the process of completing coursework requirements); 12.4% had completed coursework requirements and not yet started the dissertation; 30.9% had completed all (or most) courses and were

beginning to work on the dissertation; 7.2% had defended their dissertation proposals, but anticipated taking at least one more year to graduate; and 21.6% were in the final stages of the program (i.e., defended their proposal and expected to graduate within the year). In terms of race, 66.0% were white, 16.5% Asian, 10.3% Hispanic, 6.2% black, and 1.0% other races. Protégés had an average of three academic mentors. The average relationship tenure was 2 years and 5 months.

Due to the low response-rate, I tested for evidence of nonresponse bias. Following Rogelberg and Stanton (2007), I compared respondents to nonrespondents using archival data obtained from faculty members' websites. I conducted a one-way analysis of variance (ANOVA) with gender, rank, university, and college to see if differences existed between respondents and nonrespondents. Results indicated that differences between respondents and nonrespondents existed for gender ($F(1, 5882) = 37.53, p = .00$) and college ($F(1, 5882) = 64.40, p = .00$) only. As bias only exists if the variables also relate to actual responses related to the survey topic, I later examined the relationship between mentor sex and college and the primary variables used for hypothesis testing. These variables were only retained as control variables in my final analysis if they related to the mentor outcomes or relationship quality.

Qualitative Measures

Mentor learning and behavioral change intentions from the mentor's perspective. Recent researchers (e.g., Dunning, Heath, & Sulls, 2004; Sitzmann, Ely, Brown, & Bauer, 2010) questioned the validity of using self-reported learning measures to assess cognitive learning (i.e., amount and type of knowledge gained; Kraiger, Ford, & Salas, 1993). Self-assessments of learning are strongly correlated with affective outcomes

(e.g. motivation and reactions) and weakly correlated with objective learning measures (e.g., grades; Sitzmann et al., 2010) which suggests that self-assessments of learning actually measure how respondents feel about learning rather than how much they learned (Armstrong & Fukami, 2010; Sitzmann et al., 2010). Additionally, self-assessments of learning may include bias such as social desirability or common method variance (Benbunan-Fich, 2010). Finally, some individuals inflate ratings of their overall knowledge, with less competent individuals enhancing self-assessments more than competent individuals (Kruger & Dunning, 1999). To avoid these methodological issues common in self-reported learning measures, at Time 3, mentors were asked to respond to a series of open-ended questions designed to assess mentor learning. Sample questions included, “Thinking about your experience with your student, what you have you learned or how you have grown from this relationship?” and “What did you learn from this experience about mentoring?” These responses were coded following the steps outlined below.¹

Similar to mentor learning, at Time 3, mentors were asked to respond to a series of open-ended questions designed to assess mentor behavioral change intentions. A sample mentor behavioral change intention question was “What will you do differently

¹ I collected mentor reports of the personal skill development dimension of Lankau and Scandura’s (2002) personal learning measure and mentor general learning (Allen & Eby, 2003). Items are listed in Appendix C. Additionally, I collected protégé-reports of mentor learning/improvement with Lankau & Scandura’s personal learning scale, adapted for other-reports. These items are listed in Appendix D.

with this protégé or future protégés based on your experience with your student?” Once again, these responses were coded following the steps outlined in the next paragraph.²

I used a subset of approximately 20 percent of the responses to identify categories of learning and behavioral change intentions for each question. To identify overarching themes, I reviewed 40 responses while taking reflective notes (Strauss & Corbin, 1990). After my initial review, I developed preliminary descriptive codes and coded 54 responses with these codes, adapting as necessary. To provide evidence of interrater agreement, a research assistant independently coded half of the responses. Prior to coding these responses, I conducted two training sessions. In the first session, we independently coded 20 responses and discussed discrepancies. Interrater agreement was .82 for the first training round and Cohen’s kappa was .80 (Cohen, 1960), suggesting consistency between raters (Landis & Koch, 1977; Neuendorf, 2002; Popping, 1988). All disagreements were resolved via discussion and codes were adapted as necessary. In the second session, we independently coded 20 more responses (interrater agreement = .92; Cohen’s kappa = .89) and resolved any discrepancies via discussion. After completing these two rounds of training, I coded all responses and the research assistant coded half of the responses (interrater agreement = .88; Cohen’s kappa = .84). Codes are displayed in Appendix E.

Overall, I found three main learning themes: 1) mentoring-specific learning, 2) occupational-specific learning, and 3) relational learning. In terms of behavioral change

² I collected quantitative measures of mentor behavioral change intentions (Maurer & Palmer, 1999; Tanner, 2014) and mentor withdrawal intentions (Camman, Fichman, Jenkins, & Klesh, 1979). Items are listed in Appendix C.

intentions, mentors identified five areas they wanted to change after working with their current protégés: 1) managing expectations and monitoring progress, 2) delivering feedback, 3) listening to their protégés and identifying protégé needs, 4) adapting to different protégés, and 5) selecting future protégés more carefully. In the next chapter, I elaborate on these results as part of answering my study's research questions.

For hypothesis testing purposes, after reducing the data to categories (Onwuegbuzie & Teddlie, 2003), I transformed these responses into quantitative data (i.e., quantifying; Miles & Huberman, 1994; Teddlie & Tashakkori, 2006) that reflected the *amount* of learning and behavioral change intentions indicated by participants. First, I transformed the learning responses by rating the extent to which the mentor gained 1) mentoring-specific, 2) occupational-specific, and 3) relational skills on a scale from 1 (*not at all*) to 3 (*to a great extent*). To keep results closely aligned with the participants' responses (Miles & Huberman, 1994), this scale was developed during the thematic analysis. Specifically, "*not at all*" was selected if the respondent did not mention the type of learning at all. "*To a moderate extent*" was selected if the respondent said that s/he did not learn a lot from the particular relation, but did mention something related to the type of learning. "*To a great extent*" was selected when the participant mentioned something related to the topic. A similar process was followed for behavioral change intentions. I rated on a scale from 1 (*not at all*) to 3 (*to a great extent*) the extent to which the mentor planned to change his or her behavior in future mentoring relationships. If the mentor said that s/he does not intend to change or did not respond (but responded to other qualitative responses), I coded this individual as 1 (*not at all*). If the mentor said that s/he does not intend to change a lot based on this relationship, but does mention changing in

general, I coded the mentor as 2 (*to a moderate extent*). Finally, if the mentor described changing, I coded the mentor as 3 (*to a great extent*) for general behavioral change intentions. To assess the reliability of my methods, the same research assistant once again independently coded half of the responses following the same procedures as above (i.e., interrater agreement = .95; Cohen's kappa = .89; Landis & Koch, 1977). Learning is therefore measured with three variables: 1) mentoring-specific learning, 2) occupational-specific learning, and 3) relational learning, each scored from 1 to 3. Behavioral change intentions is measured with a single variable score from 1 to 3.

Quantitative Measures

Measures were reported by both mentors and protégés. Mentors rated mentoring self-efficacy, mentor behavioral change intentions, mentor learning, protégé positive and negative role behavior, relationship quality, internal attribution for relationship quality, feedback seeking, growth mindset, leader-member exchange, and demographics. Protégés rated mentor positive and negative role behavior, relationship quality, mentor learning/improvement, leader-member exchange, and demographics. Participants were asked to indicate their agreement on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) unless otherwise indicated. All items were averaged to create a single score for each measure. The full list of mentor measures is included in Appendix C. The full list of protégé measures is included in Appendix D.

Mentoring self-efficacy. Following the leadership self-efficacy research (e.g., Ng et al., 2008; Seibert et al., 2016), the mentoring self-efficacy scale was measured at Times 1 and 3. At Time 1, I used 12 items for career mentoring self-efficacy and 11 items for psychosocial mentoring self-efficacy adapted from Dreher and Ash (1990). Mentors

were asked to rate “how confident are you in your ability to do the following types of mentoring tasks?” on a scale from 1 (*not at all confident*) to 5 (*very confident*). Sample items for career mentoring self-efficacy include, “Help your protégé finish assignments/tasks or meet deadlines that otherwise would be difficult to complete?” and, “Go out of your way to promote your protégé’s career interests?” Sample psychosocial mentoring self-efficacy include, “Share personal experiences as an alternative perspective to your protégé’s problems?” and, “Serve as a role model for your protégé?” Using all Time 1 responses ($n = 371$), I ran a principal axis factor analysis (oblique rotation) with all mentoring self-efficacy items with two factors specified. The first factor explained 36.32% of the variance ($eigenvalue = 8.35$). The second factor explained 9.52% of the variance ($eigenvalue = 2.19$). To reduce participant burden, I retained the five items from each dimension with the highest factor loadings at Time 1 to measure mentoring self-efficacy at Time 3 (see Table 7).

Table 7. Exploratory Factor Analysis of Time 1 Mentoring Self-Efficacy Items

Item	1	2
Encourage a protégé to talk openly about anxiety and fears that detract from his/her work?	.89	-0.25
Discuss a protégé's questions or concerns regarding feelings of competence, commitment to advancement, relationships with other graduate students or professors, or work/family conflicts?	.76	-0.02
Convey empathy for the concerns and feelings discussed with a protégé?	.75	-0.08
Discuss graduate school challenges with a protégé?	.67	.04
Share personal experiences as an alternative perspective to a protégé's problems?	.67	-0.03
Convey feelings of respect for a protégé?	.59	.10
Encourage a protégé to try new ways of behaving as an academic?	.58	.14
Display attitudes and values similar to a protégé's?	.56	-0.01
Serve as a role model for a protégé?	.47	.20
Share your career history with a protégé?	.47	.11
Encourage a protégé to prepare for the job market?	.39	.34
Protect a protégé from working with other professors before you about their likes/dislikes, opinions on controversial topics, and the nature of the political environment?	.31	.21
Give or recommend a protégé for research projects or other activities that increase his/her contact with higher level academics?	-0.06	.77
Give or recommend a protégé for research projects or other activities that help him/her meet new colleagues?	-0.07	.76
Provide a protégé with opportunities to collaborate on projects with high-potential for publication?	-0.14	.72
Give or recommend a protégé for challenging research projects or teaching activities that present opportunities to learn new skills?	.01	.65
Give or recommend a protégé for research projects or teaching that required personal contact with other professors in your department?	.05	.62
Help a protégé submit projects to conferences?	.06	.60
Help a protégé apply for grants?	-0.11	.56
Go out of your way to promote a protégé's career interests?	.12	.54
Give a protégé advice on finding a job?	.17	.53

Table 7, continued.

Item	1	2
Help a protégé finish projects/tasks or meet deadlines that otherwise are difficult to complete?	.12	.46
Keep a protégé informed about what is going on at higher levels in the university or how external conditions are influencing the university?	.24	.37

n = 371. Factor 1 = psychosocial mentoring self-efficacy, factor 2 = career mentoring self-efficacy. Items in bold were retained after the factor analysis.

To assess construct validity of the shortened 10-item measure at Time 3, I conducted a confirmatory factor analysis (CFA) in Mplus 7.2 with the mentors who responded at Time 3, but were not used for hypothesis testing ($n = 148$). I examined model fit using χ^2 , comparative fit index (CFI), root mean standard error of approximation (RMSEA), and standardized root mean square residual (SRMR). CFI controls for the effect of sample size (Kline, 2011) whereas RMSEA tests how well the model reasonably fits the data, incorporating both parsimony and sample size (Brown, 2006). Optimal fit exists when CFI is greater than .90 (Hu & Bentler, 1999) and RMSEA and SRMR are less than .10 (Kline, 2011). The model did not demonstrate acceptable fit for either a one-factor structure ($\chi^2(35) = 395.13, p = .00; CFI = .66; RMSEA = .26; SRMR = .12$) or for a two factor structure with career and psychosocial mentoring self-efficacy each representing the two factors ($\chi^2(34) = 160.02, p = .00; CFI = .88; RMSEA = .16; SRMR = .07$). Following Hurley et al. (1997), I reverted back to an EFA. I ran a principal axis factor analysis (oblique rotation). Based on the Kaiser 1 (Kaiser, 1960) and scree test (Cattell, 1966), two factors were extracted. Factor 1 contained the five career mentoring self-efficacy items and explained 47.22% of the variance (*eigenvalue* = 4.72). Factor 2 contained the five psychosocial mentoring self-efficacy items and explained 19.89% of the variance (*eigenvalue* = 1.99). However, the item, “Discuss graduate student challenges with a protégé?” had a cross-loading greater than two times the primary factor loading (Hinkin, 1998) and was removed. After removing this item, I reran the analysis (see Table 8). Based on the Kaiser 1 and scree test, two factors were retained. Factor 1 contained the five career mentoring self-efficacy items and explained 47.25% of the variance (*eigenvalue* = 4.25). Factor 2 contained the four psychosocial mentoring

self-efficacy items and explained 21.83% of the variance (*eigenvalue* = 1.97). Cronbach's alpha in the Time 3 sample ($n = 148$) was acceptable ($\alpha_{\text{career}} = .88$; $\alpha_{\text{psychosocial}} = .85$). For hypothesis testing ($n = 98$), career and psychosocial mentoring self-efficacy were assessed as two separate constructs ($\alpha_{\text{career}} = .87$; $\alpha_{\text{psychosocial}} = .82$).

Table 8. Exploratory Factor Analysis of Time 3 Mentoring Self-Efficacy Items

Item	1	2
Give or recommend a protégé for research projects or other activities that help him/her meet new colleagues?	.93	-.17
Give or recommend a protégé for research projects or other activities that increase his/her contact with higher level academics?	.86	-.05
Give or recommend a protégé for research projects or teaching that required personal contact with other professors in your department?	.83	-.01
Give or recommend a protégé for challenging research projects or teaching activities that present opportunities to learn new skills?	.71	.23
Provide a protégé with opportunities to collaborate on projects with high-potential for publication?	.47	.13
Encourage a protégé to talk openly about anxiety and fears that detract from his/her work?	-.07	.87
Discuss a protégé's questions or concerns regarding feelings of competence, commitment to advancement, relationships with other graduate students or professors, or work/family conflicts?	.11	.81
Convey empathy for the concerns and feelings discussed with a protégé?	.01	.73
Share personal experiences as an alternative perspective to a protégé's problems?	-.04	.64

n = 148. Factor 1 = career mentoring self-efficacy, factor 2 = psychosocial mentoring self-efficacy. Items in bold were retained after the factor analysis.

Protégé positive and negative role behaviors. Using the 16 items retained in the scale development study (see Chapter IV), mentors were asked to indicate the degree to which they have experienced the eight items for protégé positive role behavior and eight items for protégé negative role behavior with their protégé on a scale of 1 (*to a very little extent*) to 5 (*to a very great extent*) at Time 1. Protégé positive role behavior items were averaged together to create a single-score indicator ($\alpha = .82$).

Protégé negative role behavior is a low base-rate construct. Specifically, the mean score across all items did not exceed 1.55 and the largest standard deviation was .79. Therefore, I created a summative scale for how often mentors were perceived as engaging in each type of behavior. When mentors selected “Not at all,” I coded the item as “0.” When mentors selected “To a small extent,” “To a moderate extent,” “To a fairly great extent,” or “To a very great extent,” I coded the item as “1.” Thus, scores for protégé negative role behavior could range from 0 to 8. For the sample of 98 utilized for hypothesis testing, scores ranged from 0 to 4 with an average of 1.01.

Mentor positive and negative role behavior. Mentor positive role behavior was measured at Time 1 by protégés using 12 items for career support and 11 items for psychosocial support adapted from Dreher and Ash (1990) to represent an academic setting. Respondents were asked to rate the extent to which they received the following support from their mentors in the previous three months on a scale from 1 (*not at all*) to 5 (*to a very large extent*). Sample career items include “Given or recommended you for challenging research projects or teaching activities that present opportunities to learn new skills?” and “Given or recommended you for research projects or teaching that required personal contact with other professors in your department?” Sample psychosocial items

include “Conveyed feelings of respect for you as an individual?” and “Conveyed empathy for the concerns and feelings you have discussed with him/her?”

To assess construct validity of mentor positive role behavior, I first examined the interitem correlations to see if any items correlated less than .40 with any other items following Hinkin (1998). All items correlated with at least one other item at .40 or higher. Next, I conducted a CFA using all Time 1 protégé responses ($n = 136$). The fit statistics were poor for both a one-factor ($\chi^2 (104) = 466.58, p = .00; CFI = .68; RMSEA = .16; SRMR = .10$) and two-factor ($\chi^2 (103) = 342.83, p = .00; CFI = .79; RMSEA = .13; SRMR = .08$) structure with career and psychosocial items representing the two factors. Therefore, I conducted a principal axis factor analysis with oblique rotation (Promax; Hurley et al., 1997). Three factors were extracted (Cattell, 1966; Kaiser, 1960). The first factor contained the eight mentor positive career behavior items and explained 44.86% of the variance (*eigenvalue* = 7.18). The second factor contained four of the mentor positive psychosocial items and explained 12.65% of the variance (*eigenvalue* = 2.02). The third factor contained the remaining four mentor positive psychosocial items and explained 7.00% of the variance (*eigenvalue* = 1.12). The five items with factor loadings less than .40 and cross-loadings more than two times the factor loadings on the primary factor were dropped (i.e., “Protected you from working with other professors before you knew about their likes/dislikes, opinions on controversial topics, and the nature of the political environment?”, “Kept you informed about what is going on at higher levels in the university or how external conditions are influencing the university?”, “Gone out of his/her way to promote your career interests?”, “Shared personal experiences as an alternative perspective to your problems?”, and “Shared history of his/her career with

you?"; Hinkin, 1998). I reran the analysis and two clean factors were extracted (see Table 9). The first factor contained the five remaining mentor positive psychosocial items and explained 45.17% of the variance (*eigenvalue* = 4.52). The second factor contained the five remaining mentor positive career items and explained 17.41% of the variance (*eigenvalue* = 1.74). Both mentoring positive career behavior and positive psychosocial behavior had acceptable reliability ($\alpha_{\text{career}} = .82$; $\alpha_{\text{psychosocial}} = .84$) in the sample of all protégé Time 1 responses ($n = 136$).

Table 9. Exploratory Factor Analysis of Final Mentor Positive Role Behavior Items

Item	1	2
Conveyed empathy for the concerns and feelings you have discussed with him/her?	.90	-.05
Conveyed feelings of respect for you as an individual?	.87	-.10
Encouraged you to talk openly about anxiety and fears that detract from your work?	.74	.05
Discussed your questions or concerns regarding feelings of competence, commitment to advancement, relationships with other graduate students or professors, or work/family conflicts?	.63	.09
Displayed attitudes and values similar to your own?	.54	.13
Given or recommended you for challenging research projects or teaching activities that present opportunities to learn new skills?	-.09	.82
Given or recommended you for research projects or other activities that increased your contact with higher level academics?	.07	.73
Given or recommended you for research projects or teaching that required personal contact with other professors in your department?	-.03	.71
Given or recommended you for research projects or other activities that helped you meet new colleagues?	.03	.68
Helped you finish assignments/tasks or meet deadlines that otherwise would have been difficult to complete?	.13	.54

n = 136. Factor 1 = mentor positive psychosocial behavior, factor 2 = mentor positive career behavior.

Mentor positive role behavior was assessed as two separate constructs (career and psychosocial; $\alpha = .81$; $\alpha = .85$) for hypothesis testing.

Mentor negative role behavior was measured at Time 1 by protégés using 24 items from the negative mentoring experiences measure by Eby and colleagues (2004). Eby et al. identified five different types of mentor negative behavior from the protégé's perspective: 1) mismatch within the dyad, 2) distancing behavior, 3) manipulative behavior, 4) lack of mentor expertise, and 5) general dysfunctionality. Items from the mismatch within the dyad dimension were not included because they referred to the mentor-protégé relationship and not mentor behavior; instead this scale dimension was used as a potential control variable. Two items from the distancing behavior (e.g., "My mentor is more concerned about his/her own career than helping me develop in mine"), five items from the lack of mentor expertise (e.g., "I have my doubts about my mentor's job-related skills"), and two items from the general dysfunctionality ("My mentor has a pessimistic attitude") dimensions were removed because they do not measure behavior.

To assess construct validity of mentor negative role behavior, I first examined the interitem correlations and removed any items that correlated less than .40 with all other items (Hinkin, 1998). Next, I conducted a CFA, comparing the Eby et al.'s (2004) four factor structure to three alternative models. The fit statistics did not support one factor (χ^2 (299) = 1619.22, $p = .00$; $CFI = .37$; $RMSEA = .18$; $SRMR = .14$), two factor (χ^2 (298) = 1567.88, $p = .00$; $CFI = .39$; $RMSEA = .18$; $SRMR = .15$), three factor (χ^2 (296) = 1367.86, $p = .00$; $CFI = .49$; $RMSEA = .16$; $SRMR = .14$), or four factor (χ^2 (293) = 1294.02, $p = .00$; $CFI = .52$; $RMSEA = .16$; $SRMR = .13$) models. Thus, I conducted a principal axis factor analysis with oblique rotation (Promax; Hurley et al., 1997). Six

factors were extracted (Cattell, 1966; Kaiser, 1960). The first factor contained five items and explained 30.93% of the variance (*eigenvalue* = 7.42). The second factor contained six items and explained 13.22% of the variance (*eigenvalue* = 3.17). The third factor contained four items and explained 9.04% of the variance (*eigenvalue* = 2.17). The fourth factor contained four items and explained 7.60% of the variance (*eigenvalue* = 1.82). The fifth factor contained three items and explained 6.68% of the variance (*eigenvalue* = 1.60). The sixth factor contained two items and explained 4.75% of the variance (*eigenvalue* = 1.14). One item with factor loadings less than .40 (i.e., “My mentor is unwilling to delegate responsibility to protégés”) and eight items with cross-loadings more than two times the factor loadings on the primary factor were dropped (i.e., “My mentor is reluctant to talk about things that are important to me,” “My mentor seems to have ‘more important things to do’ than to meet with me,” “My mentor is more concerned about his/her own career than helping me develop in mine,” “My mentor has undermined my performance on tasks or assignments,” “My mentor lacks expertise in areas that are important for the type of work he/she does,” “My mentor does not communicate well,” “My mentor approaches tasks with a negative attitude,” and “My mentor lacks the interpersonal skills necessary to display sensitivity when appropriate”); Hinkin, 1998). I reran the analysis and five clean factors were extracted (see Table 10). The first factor contained three mentor negative manipulative behavior items and explained 33.26% of the variance (*eigenvalue* = 4.99). The second factor contained three mentor negative general dysfunctionality items related to personal behavior and explained 15.97% of the variance (*eigenvalue* = 2.40). The third factor contained two manipulative behavior items and two general dysfunctionality items related to lying and

attitude and explained 9.96% of the variance (*eigenvalue* = 1.49). The fourth factor contained three mentor negative general dysfunctionality items related to hierarchical behavior and explained 9.63% of the variance (*eigenvalue* = 1.45). The fifth factor contained two mentor negative distancing behavior items and explained 8.19% of the variance (*eigenvalue* = 1.23). The five factors demonstrated acceptable reliability in the sample of all Time 1 protégé responses ($n = 136$; $\alpha_{\text{manipulative}} = .90$; $\alpha_{\text{personal}} = .83$; $\alpha_{\text{lying}} = .72$; $\alpha_{\text{hierarchical}} = .72$; $\alpha_{\text{distancing}} = .82$).

Table 10. Exploratory Factor Analysis of Mentor Negative Role Behavior Items

Item	1	2	3	4	5
My mentor takes credit for my hard work.	1.03	-.01	-.09	-.10	-.01
My mentor has taken credit for work that I have done.	.91	-.12	.14	-.18	.07
My mentor has undermined my performance on tasks or assignments.	.71	.13	-.01	.20	.04
My mentor allows nonbusiness related issues to interfere with his/her work.	-.00	.87	-.16	.03	-.06
My mentor tends to bring his/her personal problems to work.	-.09	.85	.13	-.05	.09
My mentor has personal problems (e.g., drinking problem, marital problems).	.06	.67	.22	-.03	-.10
My mentor asks me to do his/her “busy work.”	.09	-.06	.71	.23	-.19
My mentor has a pessimistic attitude.	-.09	.24	.67	-.13	.16
My mentor has deliberately misled me.	.19	.03	.63	.19	-.15
My mentor complains a lot about the university.	-.06	-.06	.62	-.17	.31
My mentor asks me to do his/her “busy work.”	-.00	.03	-.07	.79	.04
My mentor “pulls rank” on me.	-.24	-.13	.22	.70	.04
My mentor is preoccupied with his/her own advancement.	.09	.09	-.24	.58	.25
My mentor does not include me in important meetings.	.01	-.00	-.00	.08	.77
My mentor keeps me “out of the loop” on important issues.	.11	-.05	.20	.11	.75

n = 136. Factor 1 = mentor negative manipulative behavior, factor 2 = mentor negative personal behavior, factor 3 = mentor negative lying behavior, factor 4 = mentor negative hierarchical behavior, factor 5 = mentor negative distancing behavior.

Mentor negative role behavior is another low base-rate construct. The mean score across all items did not exceed 1.46 and the largest standard deviation was .89. After identifying the 15 items that represented each dimension of mentor negative role behavior, I created a summative scale to assess how often mentors were perceived as engaging in each type of behavior. When protégés selected “Not at all” I coded the item as “0.” When protégés selected “To a small extent,” “To a moderate extent,” “To a fairly great extent,” or “To a very great extent,” I coded the item as “1.” Thus, scores for mentor negative role behavior could range from 0 to 15. For the sample of 98 utilized for hypothesis testing, scores ranged from 0 to 13 with an average of 1.87.

Leader-member exchange. To assess discriminant validity of the new relationship quality measure, it was compared with an existing measure of leader-member exchange (LMX). LMX was collected from the mentor perspective³ at Time 2 using the 12-item LMX-MDM (Liden & Maslyn, 1998). Example items included “My protégé would come to my defense if I were ‘attacked’ by others” and “I am impressed by this protégé’s knowledge of his/her job.” LMX items were averaged together to create a single-scale score ($\alpha = .84$). LMX was not utilized for hypothesis testing.

Relationship quality. Along with the protégé positive and negative role behavior items, the relationship quality measure was also developed and validated during the scale validation study. After initial validation, relationship quality was measured with the final eight items from both the protégé and mentor perspective at Times 1, 2, and 3. However, only mentor-reports at Time 2 was used for hypothesis testing.

³ I also collected LMX from the protégé perspective at Time 2 using the 12-item SLMX-MDM (subordinate LMX; Greguras & Ford, 2006; Liden, Sparrowe, Erdogan, Gavino, & Maslyn, 2006) .

I conducted a CFA with relationship quality and mentor reports of leader-member exchange (LMX) using the mentor responses not utilized for hypothesis testing ($n = 166$) at Time 2 to determine whether or not relationship quality is a different construct than LMX. I allowed the error terms of the items making up each of the four dimensions of LMX to correlate. Additionally, I allowed the error terms of the relationship quality items “Our mentoring relationship is effective” and “I am satisfied with our mentoring relationship” to correlate and the error variance of the items “I get along well with this protégé” and “My protégé and I have a good relationship” to correlate. The model did not demonstrate acceptable fit for either a one factor structure ($\chi^2 (157) = 626.53, p = .00; CFI = .83; RMSEA = .13; SRMR = .09$) or for a two factor structure with relationship quality and LMX representing the two factors ($\chi^2 (156) = 562.81, p = .00; CFI = .85; RMSEA = .13; SRMR = .07$). Therefore, I went back and conducted a principal axis factor analysis with oblique rotation (Promax). Four factors were extracted (Cattell, 1966; Kaiser, 1960). The first factor included seven of the eight relationship quality items and explained 51.93% of the variance (*eigenvalue* = 10.39). The second factor contained the three professional respect LMX items, the three affect LMX items, the contribution item, “I do not mind working my hardest for my subordinate,” and the relationship quality item, “I like my protégé very much.” This factor explained 9.14% of the variance (*eigenvalue* = 1.83). The third factor included two of the loyalty LMX items (“My protégé would defend me to others in the university if I made an honest mistake” and “My protégé would come to my defense if I were ‘attacked’ by others”) and explained 7.57% of the variance (*eigenvalue* = 1.51). The fourth factor included the two remaining contribution items and the final loyalty item and explained 5.55% of the variance

(*eigenvalue* = 1.11). After dropping the relationship quality item that loaded on the LMX affect and professional respect dimension (i.e., “I like my protégé very much.”), I reran the analysis (Hinkin, 1998). Four factors were extracted (see Table 11). The first factor contained the seven remaining relationship quality items and explained 51.20% of the variance (*eigenvalue* = 9.73). The second factor contained two professional respect items, two affect items, and one contribution item (variance explained = 9.49%; *eigenvalue* = 1.80). The third factor two remaining items and explained 7.94% of the variance (*eigenvalue* = 1.51). The fourth factor contained one affect item, two contribution items, one loyalty item and one professional respect item and explained 5.59% of the variance (*eigenvalue* = 1.06). Cronbach’s alpha of the seven relationship quality items in this sample was .94.

Table 11. Exploratory Factor Analysis of the Relationship Quality and Leader-Member Exchange Items with Time 2 Sample Not Utilized for Hypothesis Testing

Item	1	2	3	4
My protégé and I have a good relationship.	.95	-.31	.16	.05
I am satisfied with our mentoring relationship.	.87	.10	-.12	.08
Our mentoring relationship is effective.	.82	.14	-.12	.03
My protégé and I trust each other.	.71	.11	.15	-.17
My protégé and I enjoy a high-quality relationship.	.69	.23	.01	-.02
Mentoring this protégé is a pleasure.	.65	.31	-.06	-.03
I get along well with this protégé.	.59	.14	.17	-.04
I am impressed with my protégé's knowledge of his/her job.	.05	.85	-.17	.06
I respect my protégé's knowledge of and competence on the job.	.15	.83	-.09	-.13
I admire my protégé's professional skills.	.05	.79	-.03	.06
I like my protégé very much as a person.	-.12	.58	.48	-.08
My protégé is the kind of person one would like to have as a friend.	-.07	.57	.43	-.07
My protégé is a lot of fun to work with.	.15	.50	.03	.20
I do not mind working my hardest for my protégé.	.24	.43	.13	.12
My protégé would defend me to others in the university if I made an honest mistake.	.07	-.11	.88	.09
My protégé would come to my defense if I were "attacked" by others.	.06	-.06	.87	.05
I provide support and resources for my protégé that goes beyond what is specified in my job description.	-.02	.05	-.04	.81
I am willing to apply extra efforts beyond those normally required, to help my protégé meet his or her work goals.	-.12	.29	.07	.67
My protégé defends my decisions, even without complete knowledge of the issue in question.	.11	-.22	.22	.43

n = 166. Factor 1 = relationship quality; factor 2 = leader-member exchange: professional respect, affect, and contribution; factor 3 = leader-member exchange: loyalty; factor 4 = leader-member exchange: affect, contribution, loyalty, and professional respect.

To confirm that relationship quality and LMX were two separate constructs, I conducted another CFA with the sample of 98 used for hypothesis testing, and using the seven retained items for relationship quality. The model demonstrated moderately acceptable fit for a two factor structure ($\chi^2 (137) = 283.60, p = .00; CFI = .88; RMSEA = .10; SRMR = .09$) with relationship quality and LMX representing the two factors. Importantly, the two factor model fit better than a one factor structure with all items loading on one factor ($\chi^2 (138) = 332.00, p = .00; CFI = .84; RMSEA = .12; SRMR = .11; \Delta\chi^2 = 48.40, \Delta df = 1, p = .00$).

Therefore, the seven relationship quality items shown in Table 11 were used to assess relationship quality for hypothesis testing ($\alpha = .95$). Items were averaged together to create a single-scale score.

Internal attribution for relationship quality. At Time 2, internal attribution for relationship quality was measured by mentors using three items each from the locus of causality and personal control dimensions of the revised Causal Dimensions Scale (CDSII; McAuley et al., 1992). The CDSII is a 9-point semantic differential scale where mentors were asked to think about the quality of the relationship with their protégés and indicate if the quality of the relationship “is manageable by you (9) – is not manageable by you (1)” and “can be regulated by you (9) – cannot be regulated by you (1).” Higher ratings designated internal attribution. Items were averaged together to create a single-scale score ($\alpha = .83$).

Growth mindset. Growth mindset was measured by mentors at Time 2 using three items from Dweck and colleagues (1995). Items were adapted to refer to mentoring ability rather than intelligence. All items were reverse-scored to refer to growth mindset

rather than fixed mindset. Sample items included, “You have a certain amount of mentoring ability and you really can’t do much to change it” and “Your mentoring ability is something about you that you can’t change very much.” Items were averaged together to create a single-scale score ($\alpha = .93$).

Feedback seeking. Feedback seeking was measured by mentors at Time 2 using six items adapted from Ashford (1986). Items were adapted to refer to mentoring in an academic setting rather than performance in an organizational setting. The first three items referred to the inquiry dimension and the final three items assessed the monitoring dimension. Mentors were asked to indicate the frequency in which they engaged in the behavior on a scale from 1 (*very infrequently*) to 5 (*very frequently*). Sample items included, “Seek information from other faculty members about your mentoring?” and “Pay attention to how your peers mentor their students?” The feedback seeking items were averaged to create a single-scale score ($\alpha = .68$).

Potential control variables. To strengthen the internal validity of my study, I considered multiple theoretically-relevant control variables from both the mentors and protégés at Times 1 and 2. First, previous mentoring experience may affect how mentors view their proteges’ behavior (Fagenson-Eland et al., 1997; Young & Perrewé, 2000). Thus, I included years of previous mentoring experience and number of protégés as potential control variables. Next, I collected mismatch within the dyad (measured from the mentor perspective) as mentor-protégé similarity may contribute to assessments of relationship quality. Mismatch within the dyad was measured with nine items from Eby et al. (2004). Mentors indicated the extent to which they agreed with the statements on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Example items include “The

personal values of my protégé are different from my own” and “My protégé and I have different life priorities” ($\alpha = .86$).

Additionally, I collected several individual differences that may affect individuals’ mentoring ability. As negative mentors may generally have negative experiences and negative attitudes, I included trait negative affect as a potential control. Trait negative affect was measured with 10 items from the PANAS (Watson, Clark, & Tellegen, 1988). Respondents were asked to indicate the extent to which they generally feel like the listed traits (e.g., “distressed” or “upset”) on a scale from 1 (*very slightly or not at all*) to 5 (*extremely*; $\alpha = .84$). Furthermore, extraversion, agreeableness, conscientiousness, openness to experience, and neuroticism may affect the amount of mentoring provided to protégés (Bozionelos, 2004; Niehoff, 2006) and were included as potential covariates. Extraversion, agreeableness, conscientiousness, openness to experience, and neuroticism were measured with 4 items each from the Mini-IPIP (Donnellan, Oswald, Baird, & Lucas, 2006), a short-form of the 50-item International Personality Item Pool (IPIP; Goldberg, 1992). Respondents rated the extent to which the items represented their thoughts, feelings, or actions at work (e.g., “I am the life of the party”; “I sympathize with others’ feelings”; “I like order”; I have a vivid imagination”; “I have frequent mood swings”; $\alpha = .83$; $\alpha = .78$; $\alpha = .77$; $\alpha = .60$; $\alpha = .66$). Finally, length of mentoring relationship may affect perceptions of mentoring relationships. Length of the focal mentoring relationship was measured with one item: “How long have you been a mentor to this protégé?”

The results of my test for nonresponse bias demonstrated that differences existed between nonrespondents for mentor sex and college. Mentor sex (1 = female; 0 = male)

positively correlated with psychosocial mentoring self-efficacy and mentor's college (1 = Liberal Arts; 2 = Business; 3 = Education; 4 = Engineering) negatively correlated with protégé positive role behavior and positively with mentor positive role behavior related to career support and mentoring-specific learning. As such, I retained mentor sex and mentor's college as potential controls. To determine whether or not mentors responded to the survey because they were interested in the topic, I also examined the relationship between mentoring experience (i.e., total tenure as mentor and number of protégés) and primary study variables. Total mentoring tenure and number of protégés were both correlated with relationship quality, career mentoring self-efficacy, and mentoring-specific learning, so I retained these variables as potential controls in my analysis.

I followed recent recommended guidelines for covariate selection (e.g., Aguinis & Vandenberg, 2014; Becker, 2005; Bernerth & Aguinis 2016). As Becker (2005) does not recommend controlling for variables that are uncorrelated with endogenous variables due to reduction in power and increased likelihood of Type II and Type I errors (Spector, Zapf, Chen, & Frese, 2000), I only retained control variables if they correlated with relationship quality or mentor outcomes. I calculated means, standard deviations, intercorrelations, and Cronbach's alpha for all study variables and potential control variables. These descriptive statistics are presented in Table 12. Based on the correlations, total mentoring tenure, number of protégés, mismatch within the dyad, gender, college, negative affect, extraversion, agreeableness, and conscientiousness were retained as potential control variables. Control variables were finalized after examining the structural model with paths from all potential control variables to mentor outcomes and relationship quality.

Table 12. Means, Standard Deviations, and Intercorrelations Among Primary Study Variables

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Career mentoring self-efficacy (T3)	4.45	.63	.87				
2. Psychosocial mentoring self-efficacy (T3)	4.28	.69	.47**	.82			
3. Mentoring-specific learning (T3)	2.54	.80	-.14	-.12	-		
4. Occupational-specific learning (T3)	1.54	.89	.16	.26**	-.02	-	
5. Relational learning (T3)	2.52	.79	-.07	-.04	.30**	-.08	-
6. Behavioral change intentions (T3)	2.40	.88	-.18 [†]	-.13	.36**	-.11	.23*
7. Protégé positive role behavior (T1)	4.18	.59	.27**	.31**	.00	.06	.02
8. Protégé negative role behavior (T1)	1.01	1.14	-.12	-.15	.16	-.06	.01
9. Mentor positive career behavior (T1)	3.74	.86	.01	.00	.12	.13	-.01
10. Mentor positive psychosocial behavior (T1)	4.19	.78	.18 [†]	.34**	.13	.16	-.04
11. Mentor negative role behavior (T1)	1.87	2.69	-.20 [†]	-.17	-.03	-.07	-.01
12. Relationship quality (T2)	4.65	.62	.06	.17	-.02	.11	-.04
13. Internal attribution for relationship quality (T2)	6.40	1.18	.02	.29**	-.11	.07	.06
14. Growth mindset (T2)	4.17	.80	.11	.11	-.10	.11	.09
15. Feedback seeking (T2)	2.62	.60	-.20*	-.17 [†]	.13	.08	.12
16. Total mentoring tenure (T1)	15.46	9.98	.38**	.21*	-.28**	.08	-.22*
17. Number of protégés (T1)	16.73	18.10	.21*	.17 [†]	-.36**	-.03	-.17 [†]
18. Mismatch within the dyad (T2)	2.86	.76	-.17 [†]	-.28**	.19 [†]	-.14	.04
19. Mentor gender ^a (T1)	.59	.49	.15	.21*	.02	-.01	.07
20. College ^b (T1)	2.20	1.10	-.13	-.19 [†]	.20*	.11	.02
21. Negative affect (T1)	1.49	.41	-.09	-.11	.10	-.13	.20*
22. Extraversion (T1)	3.09	.94	.15	.21*	.02	.05	.01
23. Agreeableness (T1)	4.21	.66	.25*	.52**	.00	.25*	-.10
24. Conscientiousness (T1)	3.93	.80	.22*	.00	.12	.06	-.06
25. Openness to experience (T1)	4.18	.64	.12	.07	-.10	.03	-.10
26. Emotional stability (T1)	3.75	.75	.00	.06	-.02	.15	-.16
27. Total relationship tenure (T1)	2.40	1.41	.09	.15	-.04	.14	.01
28. Leader-member exchange (T2)			.24*	.36**	-.13	.21*	-.13

n = 98. Total mentoring tenure and total relationship tenure are measured in years. ^a1 = female, 0 = male; ^b1 = Liberal Arts, 2 = Business, 3 = Education, 4 = Engineering. All variables were reported by mentors except for mentor positive career behavior, mentor positive psychosocial behavior, and mentor negative role behavior, which were protégé-reported. [†] *p* < .10, * *p* < .05, ** *p* < .01.

Table 12, continued.

Variable	6	7	8	9	10	11	12
1. Career mentoring self-efficacy (T3)							
2. Psychosocial mentoring self-efficacy (T3)							
3. Mentoring-specific learning (T3)							
4. Occupational-specific learning (T3)							
5. Relational learning (T3)							
6. Behavioral change intentions (T3)	-						
7. Protégé positive role behavior (T1)	-.11	.83					
8. Protégé negative role behavior (T1)	.15	-.36**	-				
9. Mentor positive career behavior (T1)	.21*	.12	.04	.81			
10. Mentor positive psychosocial behavior (T1)	-.04	.17 [†]	-.21*	.40**	.85		
11. Mentor negative role behavior (T1)	-.04	-.03	.23*	-.20*	-.34**	-	
12. Relationship quality (T2)	-.06	.29**	-.29**	.01	.19 [†]	-.15	.95
13. Internal attribution for relationship quality (T2)	-.13	.27**	-.11	-.02	-.11	-.05	.31**
14. Growth mindset (T2)	.02	-.08	.04	.06	.13	-.15	.12
15. Feedback seeking (T2)	.07	-.06	.12	.08	-.03	-.19 [†]	-.09
16. Total mentoring tenure (T1)	-.25*	.15	-.06	-.22*	-.08	-.10	.01
17. Number of protégés (T1)	-.04	.04	.05	-.07	-.03	-.08	-.25*
18. Mismatch within the dyad (T2)	.22*	-.16	.46**	-.02	-.18 [†]	.21*	-.30**
19. Mentor gender ^a (T1)	-.03	.01	-.13	-.02	.14	-.10	-.03
20. College ^b (T1)	.03	-.28**	.21*	.24*	.13	-.00	-.20 [†]
21. Negative affect (T1)	.14	-.06	.17	-.00	-.07	.31**	-.19 [†]
22. Extraversion (T1)	-.18 [†]	.12	.15	.08	.15	-.05	-.01
23. Agreeableness (T1)	-.16	.27**	-.35**	-.07	.32**	-.21*	.03
24. Conscientiousness (T1)	.06	.08	.02	.14	-.04	-.00	.02
25. Openness to experience (T1)	.03	.15	-.02	-.10	-.03	.15	.03
26. Emotional stability (T1)	-.12	.04	.02	.08	.09	-.23*	.14
27. Total relationship tenure (T1)	-.04	.22*	-.02	.06	.13	.02	.11
28. Leader-member exchange (T2)	-.22*	.37**	-.45**	.21*	.37**	-.35**	.50**

$n = 98$. Total mentoring tenure and total relationship tenure are measured in years. ^a1 = female, 0 = male; ^b1 = Liberal Arts, 2 = Business, 3 = Education, 4 = Engineering. All variables were reported by mentors except for mentor positive career behavior, mentor positive psychosocial behavior, and mentor negative role behavior, which were protégé-reported. [†] $p < .10$, * $p < .05$, ** $p < .01$.

Table 12, continued.

Variable	13	14	15	16	17	18	19
1. Career mentoring self-efficacy (T3)							
2. Psychosocial mentoring self-efficacy (T3)							
3. Mentoring-specific learning (T3)							
4. Occupational-specific learning (T3)							
5. Relational learning (T3)							
6. Behavioral change intentions (T3)							
7. Protégé positive role behavior (T1)							
8. Protégé negative role behavior (T1)							
9. Mentor positive career behavior (T1)							
10. Mentor positive psychosocial behavior (T1)							
11. Mentor negative role behavior (T1)							
12. Relationship quality (T2)							
13. Internal attribution for relationship quality (T2)	.83						
14. Growth mindset (T2)	.07	.93					
15. Feedback seeking (T2)	.04	.03	.68				
16. Total mentoring tenure (T1)	.01	-.02	-.35**	-			
17. Number of protégés (T1)	-.15	-.04	-.12	.61**	-		
18. Mismatch within the dyad (T2)	-.30**	-.24*	.08	-.14	-.06	.86	
19. Mentor gender ^a (T1)	.02	.20 [†]	.15	-.07	.04	-.02	-
20. College ^b (T1)	-.04	.08	.16	-.19 [†]	-.06	.07	-.04
21. Negative affect (T1)	-.11	-.02	.13	-.27**	-.17 [†]	.32**	-.08
22. Extraversion (T1)	.06	-.08	.04	.00	.01	.03	.01
23. Agreeableness (T1)	.01	.03	-.09	.20 [†]	.18 [†]	-.28**	.35**
24. Conscientiousness (T1)	.03	-.00	.04	-.01	.19 [†]	-.06	.18 [†]
25. Openness to experience (T1)	-.17	-.10	-.12	.10	.12	.04	-.06
26. Emotional stability (T1)	-.00	.02	-.12	.20*	.11	-.14	-.16
27. Total relationship tenure (T1)	-.08	.12	.07	.21*	.15	-.11	.20 [†]
28. Leader-member exchange (T2)	.33**	.16	-.06	.16	-.09	-.54**	.09

$n = 98$. Total mentoring tenure and total relationship tenure are measured in years. ^a1 = female, 0 = male; ^b1 = Liberal Arts, 2 = Business, 3 = Education, 4 = Engineering. All variables were reported by mentors except for mentor positive career behavior, mentor positive psychosocial behavior, and mentor negative role behavior, which were protégé-reported. [†] $p < .10$, * $p < .05$, ** $p < .01$.

Table 12, continued.

Variable	20	21	22	23	24	25
1. Career mentoring self-efficacy (T3)						
2. Psychosocial mentoring self-efficacy (T3)						
3. Mentoring-specific learning (T3)						
4. Occupational-specific learning (T3)						
5. Relational learning (T3)						
6. Behavioral change intentions (T3)						
7. Protégé positive role behavior (T1)						
8. Protégé negative role behavior (T1)						
9. Mentor positive career behavior (T1)						
10. Mentor positive psychosocial behavior (T1)						
11. Mentor negative role behavior (T1)						
12. Relationship quality (T2)						
13. Internal attribution for relationship quality (T2)						
14. Growth mindset (T2)						
15. Feedback seeking (T2)						
16. Total mentoring tenure (T1)						
17. Number of protégés (T1)						
18. Mismatch within the dyad (T2)						
19. Mentor gender ^a (T1)						
20. College ^b (T1)	-					
21. Negative affect (T1)	-.14	.84				
22. Extraversion (T1)	-.13	.02	.83			
23. Agreeableness (T1)	-.12	-.24*	.20*	.78		
24. Conscientiousness (T1)	.04	-.21*	-.06	.06	.77	
25. Openness to experience (T1)	-.17 [†]	-.08	.25*	.13	-.08	.60
26. Emotional stability (T1)	.21*	-.56**	-.01	.12	.15	.08
27. Total relationship tenure (T1)	-.03	-.20 [†]	-.11	.03	.17 [†]	-.04
28. Leader-member exchange (T2)	-.06	-.33**	.07	.24*	.02	-.01

$n = 98$. Total mentoring tenure and total relationship tenure are measured in years. ^a1 = female, 0 = male; ^b1 = Liberal Arts, 2 = Business, 3 = Education, 4 = Engineering. All variables were reported by mentors except for mentor positive career behavior, mentor positive psychosocial behavior, and mentor negative role behavior, which were protégé-reported. [†] $p < .10$, * $p < .05$, ** $p < .01$.

Table 12, continued.

Variable	26	27	28
1. Career mentoring self-efficacy (T3)			
2. Psychosocial mentoring self-efficacy (T3)			
3. Mentoring-specific learning (T3)			
4. Occupational-specific learning (T3)			
5. Relational learning (T3)			
6. Behavioral change intentions (T3)			
7. Protégé positive role behavior (T1)			
8. Protégé negative role behavior (T1)			
9. Mentor positive career behavior (T1)			
10. Mentor positive psychosocial behavior (T1)			
11. Mentor negative role behavior (T1)			
12. Relationship quality (T2)			
13. Internal attribution for relationship quality (T2)			
14. Growth mindset (T2)			
15. Feedback seeking (T2)			
16. Total mentoring tenure (T1)			
17. Number of protégés (T1)			
18. Mismatch within the dyad (T2)			
19. Mentor gender ^a (T1)			
20. College ^b (T1)			
21. Negative affect (T1)			
22. Extraversion (T1)			
23. Agreeableness (T1)			
24. Conscientiousness (T1)			
25. Openness to experience (T1)			
26. Emotional stability (T1)	.66		
27. Total relationship tenure (T1)	.04	-	
28. Leader-member exchange (T2)	.17 [†]	.22*	.84

$n = 98$. Total mentoring tenure and total relationship tenure are measured in years. ^a1 = female, 0 = male; ^b1 = Liberal Arts, 2 = Business, 3 = Education, 4 = Engineering. All variables were reported by mentors except for mentor positive career behavior, mentor positive psychosocial behavior, and mentor negative role behavior, which were protégé-reported. [†] $p < .10$, * $p < .05$, ** $p < .01$.

CHAPTER VI. PRIMARY STUDY ANALYSES AND RESULTS

Qualitative Findings

Using the open-ended responses on the Time 3 mentor survey, I sought to answer my research question, *What different types of learning and behavioral change intentions result from mentor perceptions of protégé positive and negative role behavior and their relationship quality?* In the following sections, I outline my qualitative findings, identifying what mentors learn from their mentoring relationships with their protégés using the full sample of mentors who responded to the open-ended questions on the Time 3 survey ($n = 269$). When asked, “Thinking about your experience with your student, what have you learned or how have you grown from this relationship?”, “...what have you learned about yourself?”, “...what have you learned about working with others?”, “...what have you learned about mentoring?”, and “...what have you learned about your organization?”, I found that mentors gained mentoring-specific, occupational-specific, relational, and organization-specific knowledge. When asked, “What will you do differently with this protégé or future protégés based on your experience with your student?”, mentors identified changes related to managing expectations and monitoring progress, delivering feedback, listening to their protégés and identifying protégé needs, adapting to different protégés, and selecting future protégés more carefully. For the quantitative assessment, only mentoring-specific learning, occupational-specific learning, relational learning, and behavioral change intentions were assessed as overarching themes.

Mentoring-Specific Learning

The first mentor learning theme related to mentoring-specific learning. Within this theme, I identified five subthemes related to gaining mentoring skills: 1) managing the mentoring relationship, 2) adapting mentoring approach for different protégés, 3) determining strategies for mentoring different topics, 4) improving their own organizational skills, and 5) giving feedback.

Managerial skills ($n = 143$). Overwhelmingly, mentors described developing managerial skills specific for the mentoring relationship. Delegation and autonomy were commonly described, with mentors struggling to balance delegating tasks to their protégés versus doing the tasks themselves, “I am constantly learning a lot about when to be hands on and when to delegate” (Participant #6815). Another mentor said, “I have learned to better delegate tasks to this student as both he and I have grown through the process” (Participant #616).

Additionally, mentors described learning to manage expectations and create clear timelines and goals going forward. For example, the following mentors identified strategies for holding their protégés accountable:

“The main takeaway from this experience is transparency in the expectations and the process. Writing out a timeline and helping guide her to stay on track. For the most part I thought I was clear, but have learned to put more things in writing in order to hold her accountable for the work” (Participant #1343).

“[I learned] the need to make sure that expectations are clear, and that there are timelines, [and] objective intermediate goals...I have learned that there needs to be more interaction – essentially daily interaction. A lot of our students go into

‘hiding,’ and we make that too easy for them to do. That's counterproductive and makes them unhappy, when interaction and direction helps much more”

(Participant #6496).

Finally, within the managerial subtheme, mentors mentioned learning to identify great students, whether it be to find someone who does not have the same characteristics as their current student, “I think it's made me more cautious about investing time and energy into students who aren't willing to put a similar level of commitment into their own work” (Participant #4501), or to find someone with similar characteristics as their current student,

“I'm most excited by students who come with ideas and questions, are teachable and learn from me but who do more than just try to please me, fill in the boxes, and complete assigned tasks. Having someone like [protégé name] who RUNS with every idea has been so fun for me. It's taught me some things about how to select students going forward” (Participant #5019).

Adaptation ($n = 107$). Mentors realized that all protégés are different and identified the importance of adapting their approaches based on the protégés’ personalities, abilities, motivations, and work styles. As one mentor stated,

“I now approach each mentoring case in a highly personalized manner instead of a one-size-fits-all, take-it-or-leave-it approach. Each case is unique, and unfortunately, no one comes with an operation manual to optimize the outcome of the relationship” (Participant #518).

Another mentor said, “I’ve learned that each student is different. We have to adopt different advising styles.” (Participant #2882). Similarly, one mentor stated, “I thought

that I already appreciated that I would have to adapt my mentoring style to different students, but I am learning that I am perhaps not as good at that as I thought I was and will need to work on this more” (Participant #7305). Additionally, mentors described identifying and working with their students’ strengths, “I have come to a greater appreciation of the fact that we all have strengths and weaknesses, and that I should help students with their weak areas while using and pointing out their strengths” (Participant #6867).

Finally, mentors illustrated the need to provide different structures for various stages of the relationship:

“Working with this student reminds me that mentoring, like supervision in field placements, is a developmental process. We need to assess where students are, then push them from that point forward, realizing that students start at very different places and need us to therefore mentor them differently” (Participant #2647).

Mentoring topics ($n = 65$). Finally, mentors described learning how to mentor different topics or learning how to mentor in general. For example, one mentor described learning how to teach her protégé to write in an academic setting, “This student has struggled with her writing and it's helped me think outside of the box and come up with new ways to assist her with her writing” (Participant #7099). Another mentor described thinking more critically about the publishing process and identifying the best way to teach her protégé the nuances of research and publishing, “I think I learned to think about the publishing process more to help him through the process” (Participant #1486). For some mentors, this protégé was their first international student, “I have learned how to

better mentor international students (from Africa) and to not take cultural understandings about academics for granted” (Participant #6067). Another mentor in a similar situation described a particular cultural issue,

“We have cultural differences that we are learning to work with. For example, he had some difficult emotional things to deal with in his first year. My strategy is to encourage my students to discuss the fact that they are struggling with me, but this is not something that students tend to do with their mentors in his culture. Finding a common ground where he is comfortable helping me understand how he is doing without feeling like he is over exposing himself has been an ongoing dialogue for us.” (Participant #7073).

Organizational skills ($n = 38$). Some mentors described where their own organizational skills were lacking, which did not become apparent until they began mentoring their protégé. For example, one mentor stated, “My student is a much more organized person than I am so I have had to become more organized to effectively advise her” (Participant #7030). Another mentor said, “I’m not as organized (time wise) as I would like to be!” (Participant #1119).

Feedback ($n = 32$). Mentors described struggling with feedback, specifically with trying to find a balance between giving students positive feedback and providing negative feedback when necessary. Whereas some mentors erred on giving too much positive feedback, “I do not like to give negative feedback and I still struggle [with] how to deliver it right. I probably sugarcoat it too much, whereas sometimes there are times you just need to say ‘that wasn't good enough, here's how to improve from here’” (Participant #2473), others erred on the more negative side,

“I have learned to be very careful about how I guide him because he was deeply emotionally scarred by his prior mentor. I am now more careful with all my mentees to state something positive about their ideas first, before then focusing on the logical errors or points of disagreement that I have with their perspective...Previously, I was more inclined to ‘get right to the point,’ which may have bulldozed or intimidated mentees” (Participant #518).

Some mentors described learning to deliver negative feedback without destroying their protégés’ motivation, “I have also had to learn and grow in how to talk with a student when I have bad news to share, but have to keep them motivated and focused on other projects” (Participant #903).

Occupational-Specific Learning

In addition to mentoring-specific learning related to mentoring, mentors described enhancing skills that would benefit their careers as academics. Within the second learning theme of occupational-specific learning, I identified three subthemes: 1) research topics and theories, 2) methods, and 3) teaching.

Research topics and theory ($n = 64$). Many mentors discussed learning new theories or being exposed to new areas of research “I am a medical researcher teaching in management. I am learning a lot about management research and how it differs from what I typically do” (Participant #1486). Another mentor stated,

“Her dissertation was so innovative, and I learned a great deal about what was happening on the ground (her work was [an ethnographic study]). We continue to work together, so I've benefited professionally from her intellect” (Participant #7353).

In addition to learning new theories or topic areas, mentors described gaining a new perspective on their own work, “Through our discussions, I have learned new things about our research by explaining it to him and I have learned new things from him explain things that I did not know to me” (Participant #659) or learning how to connect their work to other domains, “I have learned about different ways to think about the importance of my work and the knowledge in my field as it applies to other areas of study and educational study” (Participant #4755).

Other mentors described learning research techniques from their protégés’ other collaborators (either within the university or at other universities),

“She is also working with a few other faculty members in our department, so I have learned a lot about how others are doing research, which definitely helps me think about different ways of approaching my own” (Participant #1726).

“I have learned a great deal about working with colleagues from other institutions. In this particular case, the student I am mentoring has a topic that links nationally to several prominent scholars, and we have worked together to draw that in” (Participant #1126).

Methods ($n = 15$). In particular, mentors described learning new methods, “And with respect to methodologies, I am quantitatively inclined, but my protégé prefers qualitative methods – so working together is great because we complement each other’s work” (Participant #7815). Another mentor said, “She made me think a lot about research design issues, and in the end I learned a lot from her pushing back on some of my comments” (Participant #4007).

Teaching ($n = 3$). Finally, mentors described learning new ways of thinking about the topics that they teach that could potentially spill over to the classroom. For example, one mentor described implementing an effective new teaching method based on his experience with his protégé,

“This student is particularly reflective and spends more time thinking than talking or acting...he tends to take more time thinking first, then acting, and this has been quite productive for both of us. Because of this, I've instituted a few opportunities in my courses for students to think – we take a pause and do a thinking exercise before we start a particular project. This has been well received by students.” –

4345

Overall, these mentors stressed that beyond the basic career benefits and expectations of mentoring (i.e., “It is part of my job”), mentors gained skills to help them further develop in their own careers.

Relational Learning

Consistent with previous research by Lankau and Scandura (2002), I found support for the notion that mentors experience personal and relational learning from mentoring their protégés. Within this third relational learning theme, I identified the communication and listening subtheme that largely aligned with Lankau and Scandura's (2002) measure. Furthermore, I identified two additional subthemes that expand their personal learning definition: 1) perspective taking, empathic concern, and patience and 2) self-awareness.

Communication and listening ($n = 73$). First, I found that mentors do indeed improve their communication skills, “Working with my student has helped me consider

new ways of communicating with colleagues and providing more information about ongoing activities” (Participant #7306). Listening skills were also improved through mentoring, “[I have learned] to keep my big mouth shut and listen” (Participant #6418).

Perspective taking, empathic concern, and patience (*n* = 122 responses).

Whereas Lankau and Scandura (2002) briefly describe mentors becoming more in-tune with their protégés’ feelings and attitudes, I found that this was a fundamental theme within the relational learning framework. Mentors consistently described perspective taking, or attempting to understand “the world from another’s vantage point or imagining oneself in another’s shoes” (Galinsky, Ku, & Wang, 2005, p. 110), when working with their students. For example, one mentor identified a “silent pain that graduate students endure to achieve the degree” and that mentoring reminded him to be aware of this “silent pain, inner pain” in order to improve situations for his graduate students (Participant #7556). Another mentor stated, “I find that we admit students on the basis of scholarly skills and potential and then the whole person shows up” (Participant #6137).

Another mentor described realizing how his experience as a white male in academia is quite different from his black female protégé, “As a white male and mentoring an African American female student, I have learned about considering new and different perspectives and how individual experiences can vary so broadly” (Participant #1086). Another mentor said,

“I am a white woman, and my mentee is an African American woman. I have learned a lot about what it means to be black on a predominantly white campus, and how frequent micro-aggressions and actual aggressions are. I have learned how hard a black woman has to work to be taken seriously” (Participant #7091).

Some mentors realized that graduate students have limited support as mothers or students who have followed a nontraditional path, “I have become more sensitive to the needs of students who have not followed a traditional path – this mentee is a first generation college student” (Participant #6921).

The notion of empathic concern, or sympathy and worry for others (Davis, 1983), reoccurred within this subtheme, “I think that my capacity for empathy has grown, and I’ve tried to be more understanding that research and writing can be a difficult process for some folks to grasp” (Participant #903). Many mentors simply described learning to be patient, “[I] need to be more patient and put myself in their shoes” (Participant #4783).

Other mentors described having been removed from the experience of graduate school, forgetting their own experiences, and being reminded of these experiences when observing their own protégés experiencing similar situations,

“Hearing the students' personal concerns really grounds me. It connects me with memories of my own graduate school experience. Sometimes it is easy to get absorbed in my own ‘bubble’ of focusing on promotion and tenure” (Participant #598).

Another mentor described this realization,

“I ‘forgot’ how students define success, and how difficult it is for some students to ‘fail’ at something from their perspective. I think I have learned to step back in some respects and think about the messages I have given the student about their next steps in the program or in their career. Having been one of those students that didn't take ‘failure’ well, I learned that I have gotten beyond that and stopped thinking about the impact of those experiences on my own career. I need to

remember them, and remember to think about how I say what I need to say with an eye toward how the student will take it. It is always important to remember what it was like as a young professional/student, and use my own experience to inform how I work with others” (Participant #4706).

Overall, mentors recognized the importance of perspective taking, empathic concern, and patience as important groundwork for being a successful mentor, “...it has become increasingly clear that without attempting to truly understand where a student is coming from, it is almost impossible to be a good mentor” (Participant #2240).

Self-awareness ($n = 156$). In addition to communication skills and perspective taking, mentors described gaining self-awareness. Specifically, mentors described moments of clarity when they identified their own strengths and weaknesses, “I’ve learned that I’m not great at giving criticism, but that I am good at developing students’ strengths” (Participant #6951). Someone else stated, “[I learned] that I really need to speak less and listen more. I always thought I was pretty good at listening, but clearly, I need to do more of this. And I need to ask better questions” (Participant #4574). Another mentor said, “I never felt like I was a good mentor. I am even more convinced that I don’t know what I’m doing” (Participant #7897). Whereas some recognized that they “really relish the mentoring experience” (Participant #7279), others stated that “working with others is a big part of [the mentor’s] own job satisfaction” (Participant #6418). One mentor said, “Conversations with [protégé] about her dissertation are one of the best things about my job” (Participant #6158).

Some respondents learned the value of their own opinion,

“I have learned that I actually do have good advice to give! And I have learned that my role as a support system, catalyst, or resource is just as important as my role as a teacher who has experience to share” (Participant #6403).

One professor who was recently promoted to associate professor described mentoring as helping her realize that she is “not so ‘junior’ anymore. Transitioning from pre- to post-tenure has been somewhat difficult but I’m liking the authority it brings because it allows me to advocate for my students” (Participant #7815).

Organization-Specific Learning

Although typically only described when prompted and therefore not coded for the quantitative analysis, mentors mentioned becoming more aware of policies and the culture within their own department or university. Similarly, some mentors described learning more about the amount of support or lack of support granted their doctoral students ($n = 114$ responses). Whereas some mentors discovered that their university offered support for mentoring or graduate students in general, “I have learned that my organization cares about the success of my graduate students and is willing to support me in doing so” (Participant #2233), others described lacking mentoring support or graduate student resources,

“...there is little support to work closely with graduate students. Our organization does not offer a lot of resources to fund students to work on research, or to help them build and develop their skills as writers. We also do not have access to a lot of funding to support student travel. This makes working with students more difficult” (Participant #903).

Another mentor described his department as discouraging him from mentoring students, “My organization does not always value mentoring PhD students. In fact, some senior professors are recommending against Assistant Professors (such as myself) from taking on mentoring PhD students” (Participant #4868).

Specifically related to perspective taking, some mentors learned the extent to which minority students or new mothers were not supported within their program or university. One mentor explained, “It is still not as mother-friendly as it should be, but is getting better” (Participant #7799). Another mentor realized that her institution was not welcoming to Black students and did not have the environment to effectively support students of color,

“I learned that my college can be a hostile place for Black doctoral students.

There are not enough people and not enough mechanisms in place to support the retention and success of students who challenge the established White norms” (Participant #2136).

Another mentor expressed a similar concern after working with her Latina student,

“I’ve learned that people like to talk about how there isn’t a Latino/a pipeline in higher education (pipeline to faculty of color) but really there is but our institutions disadvantage people along the way... And now I’m noticing that it even starts with graduate students. My protégé got one year of funding in our department. This meant that as a first year, she had to spend quite a bit of time looking for funding for her second (and beyond) year. So she didn’t get the luxury of other graduate students – to simply focus on completing course work...

basically my organization like many others sets up barriers for first-generation college goers and/or racial/ethnic minorities” (Participant #7815)

International student needs were also a concern, as one mentor stated, “We could do better handling the needs of international students, who are frequently struggling with issues we are unaware of” (Participant #7897).

In the same way, mentors discussed discovering that their institution only supports the traditional academic career trajectory, “This campus can be very supportive and helpful for those who represent the ‘standard model,’ but they have a great deal of challenge/limitation when trying to support alternative models of excellence or potential” (Participant #420). Protégés searching for alternative careers or who developed along a nontraditional path encountered greater obstacles in completing their PhDs. For example, “We are overly concerned with cubby holing students into substantive categories. We also discourage students from pursuing careers outside of academics” (Participant #6928). Another mentor described his experience with his student,

“My organization is strongly oriented to producing future scholars who will position themselves in R-1 institutions and advance our field. When students change course from this path (as my student did), they are seen as a rising-star that we (us and our field) have ‘lost.’ When students are not willing to move to wherever the best new faculty position is (oftentimes because they prefer to live geographically close to family), they are viewed as less committed to our field than we originally thought they were. When my student changed course, much of the support that she was receiving from other faculty began to wane” (Participant #4356).

One mentor who left her institution said,

“... there was a real lack of support for either myself or for students who need extra help. They may have claimed they want to create a diverse student population, but they weren't willing to go the extra distance for those who need extra help in becoming part of the academy” (Participant #1028).

Finally, one mentor concluded that his university “...is not always a supportive, caring, or safe place for students from diverse backgrounds” (Participant #4712).

Others gained information about their university's or department's culture ($n = 47$), “The student culture is very important. Some of it can be influenced by faculty; some cannot” (Participant #4840). Another mentor described,

“I've been reminded how around here, if you're not first you're last. There's very little room for missteps, because missteps put you behind as others get resources and accolades. This is likely as true for students as it is for faculty” (Participant #2473).

Finally, mentors learned more logistical details, such as the structure of the doctoral program, requirements, and policies ($n = 38$). For example, one mentor said, “I've learned about new funding opportunities, organizational structure, and outreach opportunities within the department” (Participant #821). Another stated, “I've learned more about the specifics of graduate school requirements, rules about internal dissertation fellowships, etc.” (Participant #6539).

Behavioral Change Intentions

When asked what they intended to do differently in their current or future mentoring relationships, mentors described five major themes: 1) establishing clear

guidelines and monitoring progress, 2) changing their approach to delivering feedback, 3) listening and identifying protégé needs, 4) adapting to these needs, and 5) selecting future protégés more carefully.

Establishing guidelines ($n = 83$). Related to managing the mentoring relationship, most mentors described wanting to establish clear guidelines and create plans for their future protégés. Managing expectations was an important change mentors wanted to make for future relationships, “[I plan to] be clearer about expectations early on. I will still adopt a friendly tone (that's who I am, and I neither can nor want to change that), but try to still make it clear that progress is necessary in order for our relationship to work well” (Participant #182). Some mentors even suggested that they would adopt a mentoring contract for future relationships, “I might outline expectations more clearly up front, and perhaps complete a mentoring contract or agreement” (Participant #7930).

Many mentors described wishing they had done a better job at monitoring progress or holding their protégés accountable. This desire was often described as needing to happen in the initial stages of the relationship. For example,

“I've got to learn to give more milestones, try to be a bit more organized up front to hold their feet to the fire. I don't have to hold their hands, but I need to give frequent deadlines so they have incentive and pressure to try and get things done” (Participant #2473).

Delivering feedback ($n = 43$ responses). Along with managing their protégés' expectations and more proactive management of the mentoring relationship, mentors described wanting to improve how they delivered feedback. Whereas some mentors described wanting to provide more constructive feedback, “[I will] provide more specific

feedback but in a supportive, encouraging context” (Participant #7099), others described wanting to provide difficult or direct feedback more readily when the protégé needed it rather than not providing feedback or giving only positive feedback, “I would like to provide more specific and direct feedback (especially when differences of opinion arise) and to try to determine what motivates her and other protégés” (Participant #821). Overall, these mentors described hoping to balance “...tough love and cheerleading” (Participant #7968).

Identifying protégé needs ($n = 42$). Mentors also discussed wanting to get better at listening and understanding their protégés’ needs, “[I will] listen, learn, and understand each protégé’s needs to adapt my approach” (Participant #1745). Whereas some mentors described listening as a means to understand how to adapt their mentoring approach, others discussed listening as a general desire to understand the protégés’ experience by “listen[ing] to their struggles toward achieving the degree” (Participant #7556). By expressing the desire to listen and understand protégés’ needs, some mentors described hoping to be more cognizant of work-life balance and effects of life on work. For example, one mentor said, “[I will] look for clues about what is going with a student that might go beyond work” (Participant #718).

Adapting ($n = 30$). In addition to listening and identifying protégé needs, mentors also described hoping to be more adaptable in future relationships. These mentors recognized that each protégé is different and identified that different approaches may be appropriate for different phases of the relationship,

“I will think critically about how I can best meet each individual student's needs. They are all so different and come with different abilities and interests. I think it

will continue to be important to have more detailed conversations about where they feel comfortable and where they need to grow” (Participant #903).

Selecting protégés ($n = 18$). Finally, some mentors stated that in the future, they will be more careful selecting their protégés and will “leave the door open so they can leave if the relationship does not work out” (Participant #4151). For example, one mentor stated, “I will certainly be more selective in taking students and in particular pay much more close attention to writing ability” (Participant #7332). Others described being less willing to trust protégés in the future, even if they had positive experiences with their current protégés, “Do not assume that every student will be as easy to work with and do not offer the same trust to other students until they've proved they deserve it” (Participant #983).

Summary of Qualitative Findings

Overall, mentors gained new skills from working with their protégés. First, when asked to describe what mentors learned in general, about themselves, mentoring, and working with others, mentors described three main learning themes: 1) mentoring-specific learning, 2) occupational-specific learning, and 3) relational learning. Mentoring-specific learning related to managing the mentoring relationship, adapting their approach for different protégés, determining strategies for mentoring different topics, improving their own organizational skills, and giving protégés feedback. Occupational-specific learning related to becoming familiar with new theories or research areas, learning new methodologies, and identifying new teaching methods. Relational learning confirmed some of Lankau and Scandura’s (2002) findings that mentors gained listening and communication skills, but also emphasized perspective taking, empathic concern, and

patience as important outcomes of mentoring relationships. Self-awareness was also identified as a form of relational learning.

Second, when asked what mentors learned about their organizations, mentors described learning more about the level of support provided to protégés, especially in regards to specific groups of protégés. Others learned about the culture of their organization or department, whereas others learned more logistical policy or graduate study requirements

Finally, when asked what mentors intended to do differently with their current or future protégés, mentors identified five major behavioral change intentions themes: 1) establishing guidelines and managing progress, 2) delivering feedback, 3) listening and identifying protégé needs, 4) adapting to these needs, and 5) selecting future protégés more carefully in the future.

Quantitative Analysis

After finishing my qualitative analysis and identifying what mentors learned from their experiences with their protégés, I turned to my quantitative analysis to examine how role behaviors influence relationship quality and mentor outcomes.

Preliminary Analysis

First, to assess construct validity of my measures, I conducted three different CFAs (Mplus 7.2) with the variables from each time period to compare alternate factor structures to my hypothesized factor structures.

Time 1 confirmatory factor analysis. To decrease the chance of correlated residuals and improve the variable to sample size ratio (Williams & O'Boyle, 2008), I created three parcels as indicators of protégé positive role behavior using the item-to-

construct balance approach (Little, Cunningham, Shahar, & Widaman, 2002). This method ensures that each parcel is a relatively equal indicator of the latent variable by alternating factor loadings when splitting into parcels.

The first CFA contained the five Time 1 variables: protégé positive role behavior (3 parcels), mentor positive career behavior (5 items), mentor positive psychosocial behavior (4 items) protégé negative role behavior (1 item), and mentor negative role behavior (1 item). Mentor positive career behavior and mentor positive psychosocial behavior were allowed to correlate. All factor loadings on hypothesized factors were. As shown in Table 13, the five factor model demonstrated the best fit of the models ($\chi^2(82) = 146.06, p = .00, CFI = .89, RMSEA = .09, SRMR = .07$) and fit better than all alternative models.

Time 2 confirmatory factor analysis. The second CFA contained all Time 2 latent variables: relationship quality (7 items), internal attribution for relationship quality (6 items), growth mindset (3 items), and feedback seeking (6 items). All factor loadings on the hypothesized factors were significant. As shown in Table 13, the hypothesized four factor model where all four variables were tested as unique constructs demonstrated the best fit of the models ($\chi^2(203) = 353.05, p = .00, CFI = .88, RMSEA = .09, SRMR = .08$) and fit better than all alternative models.

Time 3 confirmatory factor analysis. The third CFA contained the six Time 3 latent variables related to mentor outcomes: career mentoring self-efficacy (5 items), psychosocial mentoring self-efficacy (4 items), mentoring-specific learning (1 item), occupational-specific learning (1 item), relational learning (1 item), and behavioral change intentions (1 item). The hypothesized six factor model demonstrated the best fit of

the models ($\chi^2(54) = 68.39, p = .09, CFI = .96, RMSEA = .05, SRMR = .05$) and fit better than all alternative models (see Table 13).

Table 13. Confirmatory Factor Analyses of Times 1, 2, and 3 Variables

Factors	χ^2	<i>df</i>	CFI	RMSEA	SRMR	$\Delta\chi^2$	Δdf
CFA of Time 1 Variables							
1. Hypothesized (5 factor)	146.06**	82	.89	.09	.07		
2. Mentor positive role behavior as a single factor (4 factor)	258.86**	86	.71	.14	.12	112.80**	4
3. All items loaded on one factor (1 factor)	384.53**	90	.51	.18	.15	238.47**	8
CFA of Time 2 Variables							
1. Hypothesized (4 factor)	353.05**	203	.88	.09	.08		
2. Relationship quality and internal attribution for relationship quality as one factor (3 factor)	587.62**	206	.70	.14	.14	234.57**	3
3. Relationship quality and internal attribution for relationship quality as one factor and growth mindset and feedback seeking as another factor (2 factor)	658.79**	208	.64	.15	.15	305.74**	5
4. All items loaded on one factor (1 factor)	906.97**	209	.44	.19	.18	553.92**	6
CFA of Time 3 Variables							
1. Hypothesized (6 factor)	68.39	54	.96	.05	.05		
2. Mentoring self-efficacy as a single factor (5 factor)	158.23**	59	.75	.13	.09	89.84**	5
3. Mentoring self-efficacy and mentor learning as single factors (3 factor)	162.30**	63	.75	.13	.10	93.91**	9
4. Mentoring self-efficacy and mentor learning with behavioral change intentions as single factors (2 factor)	162.73**	64	.75	.13	.10	94.34**	10

n = 98. CFA = confirmatory factor analysis. * *p* < .05, ** *p* < .01.

Regression analyses. Next, to test hypotheses 6 – 9, I conducted 13 different hierarchical regression analyses with the potential moderators (i.e., internal attribution for relationship quality, feedback seeking, and growth mindset) to determine which moderators affected the relationship between relationship quality and mentor learning outcomes (i.e., career mentoring self-efficacy, psychosocial mentoring self-efficacy, mentoring-specific learning, occupational-specific learning, relational learning, and behavioral change intentions). Prior to analysis, constructs used for calculating the interaction term were mean centered to account for multicollinearity (Moulder & Algina, 2002). For each analysis, the control variables were entered in step 1⁴ (protégé positive role behavior, protégé negative role behavior, mentor positive career role behavior, mentor positive psychosocial role behavior, mentor negative role behavior, total mentoring tenure, number of protégés, mismatch within the dyad, gender, college, negative affect, extraversion, agreeableness, and conscientiousness). In step 2, relationship quality and the appropriate moderator were entered (either internal attribution for relationship quality, growth mindset, or feedback seeking). In step 3, the interaction term (relationship quality x moderator) was entered. As shown in Table 14, feedback seeking moderated the relation between relationship quality and occupational-specific learning ($\Delta R^2 = .06, p = .02$). However, because I conducted 13 simultaneous analyses, I utilized the Bonferroni correction which divides the significance level by the number of hypotheses ($\alpha/13$; Miller, 1981). The interaction between relationship quality and feedback seeking did not meet the threshold for significance (i.e., p-value less than

⁴ I also ran the regression analyses without control variables and did not find any interactions.

.004), therefore, I did not include feedback seeking as a moderator in my full structural model. As I did not find any interactions, hypotheses 6-9 were not supported.

Table 14. Regression Results Predicting Occupational-Specific Learning

Independent Variable	Step 1	Step 2	Step 3
Protégé positive role behavior	-.07	-.09	-.05
Protégé negative role behavior	-.09	.08	.07
Mentor positive career behavior	.24	.24	.27*
Mentor positive psychosocial behavior	.01	.01	.04
Mentor negative role behavior	.11	.09	.13
Total mentoring tenure	.07	.14	.13
Number of protégés	-.14	-.15	-.21
Mismatch within the dyad	-.16	-.15	-.14
Mentor gender	-.15	-.18	-.20
College	.07	.07	.02
Negative affect	-.05	-.06	-.04
Extraversion	-.00	-.01	.04
Agreeableness	.30*	.32*	.33*
Conscientiousness	.03	.03	.00
Relationship quality		.05	-.03
Feedback seeking		.19	.23*
Relationship quality x feedback seeking			.30*
R ²	.17	.20	.26
ΔR ²		.03	.06*
Model F	1.06	1.10	1.47

n = 98. Standardized beta coefficients are reported. * *p* < .05, ** *p* < .01.

Primary Analysis

After testing for moderation, I tested my structural model in Mplus (7.2) using maximum-likelihood estimation. Maximum-likelihood assumes that variables are missing completely at random and uses pairwise deletion (Muthén & Muthén, 2007). Because I used single-item indicators for the latent variables, I corrected for measurement error by setting the error variance to $(1 - \alpha)$ times the sample variance for each latent variable (Bollen, 1989).

In the model with only control variables, I included paths for the control variables between the mediator and all outcomes. In all subsequent analysis, any paths that were not related in the control model were removed following recommendations from Becker (2005). Therefore, each model includes a path from mismatch within the dyad to relationship quality, conscientiousness to career mentoring self-efficacy, and agreeableness to psychosocial mentoring self-efficacy. All other control variables were eliminated. Additionally, I allowed career mentoring self-efficacy and psychosocial mentoring self-efficacy to correlate.

I compared the fit of the hypothesized fully mediated model to the model containing only control variables and five alternative partially mediated models (see Table 15). The fully mediated model fit the data better than the model that included only controls ($\Delta\chi^2 = 30.59$, $df = 4$, $p = .00$). The first alternative model, which included paths from the mentor-rated independent variables (protégé positive role behavior and protégé negative role behavior) to all outcomes, did not significantly improve model fit ($\Delta\chi^2 = 14.11$, $df = 12$, $p = .29$). The second partially mediated model, which included paths from protégé-rated independent variables (mentor positive career behavior, mentor positive

psychosocial behavior, and mentor negative role behavior) also did not significantly improve model fit ($\Delta\chi^2 = 22.72, df = 18, p = .20$). The third partially mediated model with paths from mentor and protege negative role behaviors to outcomes did not significantly improve model fit ($\Delta\chi^2 = 12.11, df = 12, p = .44$). The fourth partially mediated model, with paths from mentor and protégé positive role behaviors to outcomes did improve model fit ($\Delta\chi^2 = 26.02, df = 18, p = .10$). Finally, the fully saturated model with direct paths included from all independent variables to outcomes did not significantly improve model fit ($\Delta\chi^2 = 37.62, df = 30, p = .16$). Therefore, I used Model 6, or the partially mediated model with direct paths from all positive role behaviors to outcomes, to test my hypotheses.

Table 15. Structural Model

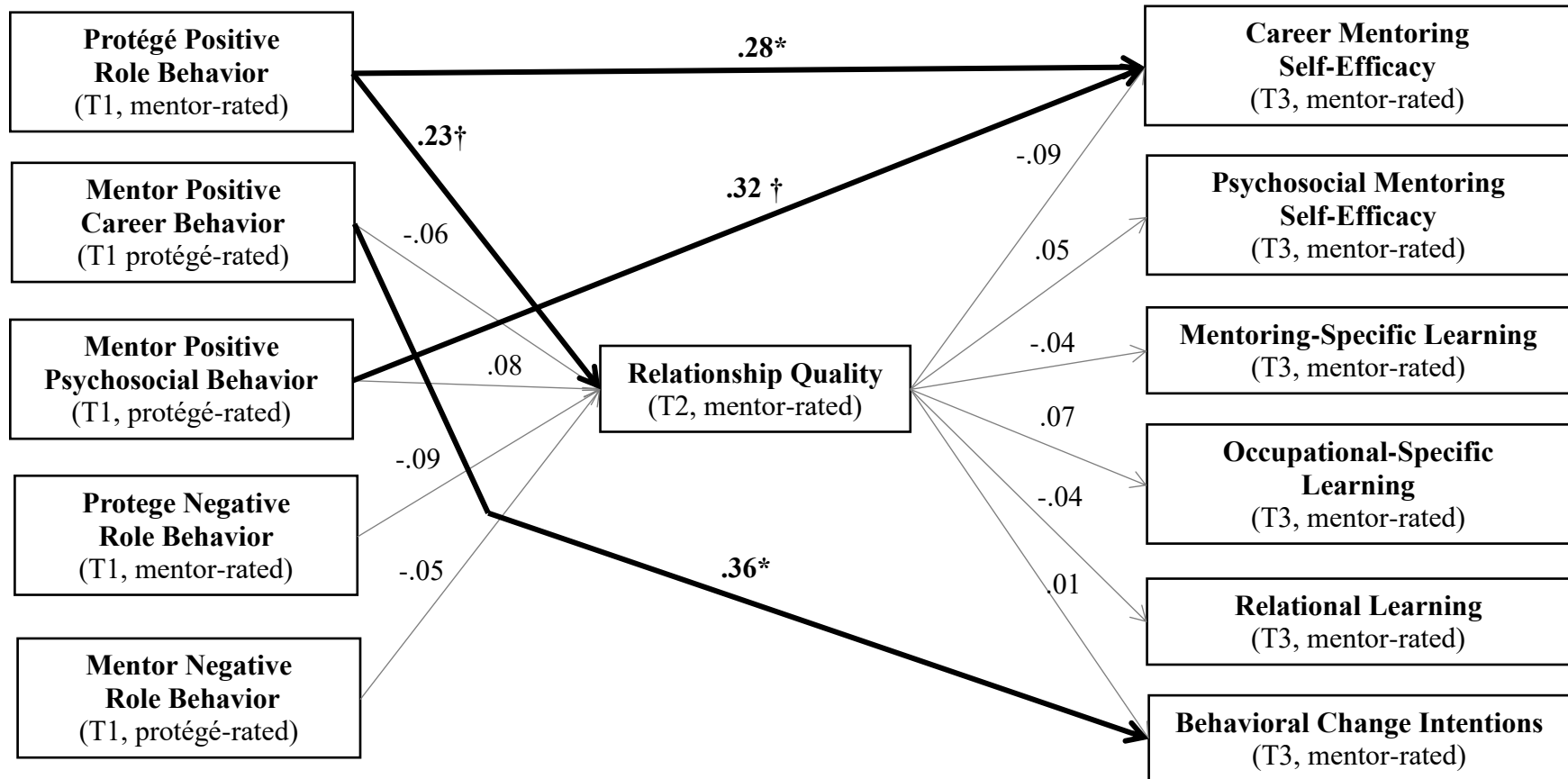
Factors	χ^2	<i>Df</i>	CFI	RMSEA	SRMR	$\Delta\chi^2$	Δdf
1. Only control variables	90.15**	44	.71	.10	.09		
2. Fully mediated (hypothesized)	59.96	48	.93	.05	.07		
3. Partially mediated (mentor-rated role behaviors to all outcomes)	45.45	36	.94	.05	.06	14.11	12
4. Partially mediated (protégé-rated role behaviors to all outcomes)	36.84	30	.96	.05	.05	22.72	18
5. Partially mediated (negative role behaviors to all outcomes)	47.85	36	.93	.06	.06	12.11	12
6. Partially mediated (positive role behaviors to all outcomes)	33.54	30	.98	.04	.04	26.02	18
7. Partially mediated (all role behaviors to all outcomes)	21.94	18	.98	.05	.04	37.62	30

n = 98. * *p* < .05, ** *p* < .01.

To test my hypotheses, I evaluated the significance of the standardized path coefficients (see Figure 2). Hypothesis 1a predicted that mentor's perception of protégé positive role behavior would be positively related to relationship quality. The path between protégé positive role behavior and relationship quality was positive ($\beta = .23, p = .05$). Using a one-tail test, this hypothesis was supported. Hypothesis 1b predicted that protégé's perception of mentor positive role behavior would also be positively related to relationship quality. The relationships between relationship quality and mentor positive career behavior and mentor positive psychosocial behavior were weak ($\beta_{\text{career}} = -.06, p = .68$; $\beta_{\text{psychosocial}} = .08, p = .56$). Thus this hypothesis was not supported. Hypothesis 2a predicted that mentor's perception of protégé negative role behavior would be negatively related to relationship quality, however, this hypothesis was not supported ($\beta = -.09, p = .40$). Hypothesis 2b predicted that protégé's perception of mentor negative role behavior would be negatively related to relationship quality, but this hypothesis was also not supported ($\beta = -.05, p = .62$). Hypothesis 3 posited that relationship quality would be positively related to mentoring self-efficacy, however, this hypothesis was not supported for either career ($\beta = -.09, p = .56$) or psychosocial mentoring self-efficacy ($\beta = .05, p = .76$). Hypothesis 4a predicted that relationship quality would be negatively related to the amount of mentor's behavioral change intentions. This hypothesis was not supported ($\beta = .01, p = .96$). Hypothesis 4b predicted that relationship quality would be negatively related to the amount of mentor's learning. This hypothesis was not supported for mentoring-specific learning ($\beta = -.04, p = .82$), occupational-specific learning ($\beta = .07, p = .57$), or for relational learning ($\beta = -.04, p = .78$). Finally, hypothesis 5 predicted that relationship quality would mediate the relations between protégé and mentor positive and

negative role behavior and mentor outcomes. As would be expected from my previous results and as shown in Table 16, relationship quality did not mediate the relation between any of the independent variables and dependent variables. Although only one of my hypotheses was supported, the partially-mediated model revealed that: protégé positive role behavior had a positive relationship with career mentoring self-efficacy ($\beta = .28, p = .046$); mentor positive career behavior had a positive relationship with behavioral change intentions ($\beta = .36, p = .03$); and mentor positive psychosocial behavior had a positive relationship with career mentoring self-efficacy ($\beta = .32, p = .07$). These results suggest that mentoring role behaviors have direct effects on mentor outcomes.

Figure 2. Results of Partially Mediated Model



n = 98. Standardized path estimates are reported. Significant paths are in bold. Control variables are not shown here, but include paths from mismatch within the dyad to relationship quality, conscientiousness to career mentoring self-efficacy, and agreeableness to psychosocial mentoring self-efficacy. For ease of interpretation, only significant direct paths are included. Direct paths from protégé positive role behavior, mentor positive career behavior, and mentor positive psychosocial behavior to all outcomes are also included. † *p* < .10, * *p* < .05, ** *p* < .01.

Table 16. Direct and Indirect Effects from Role Behaviors to Mentor Outcomes

Outcome	Path	Standardized Path Estimate	95% CI
Career mentoring self-efficacy	Protégé positive role behavior	.28*	-.03, .60
	Protégé positive role behavior → Relationship quality	-.02	-.17, .06
	Mentor positive career behavior	-.24	-.47, .06
	Mentor positive career behavior → Relationship quality	.01	-.04, .06
	Mentor positive psychosocial behavior	.32†	.00, .54
	Mentor positive psychosocial behavior → Relationship quality	-.01	-.13, .01
	Protégé negative role behavior → Relationship quality	.01	-.01, .04
	Mentor negative role behavior → Relationship quality	.01	-.00, .01
Psychosocial mentoring self-efficacy	Protégé positive role behavior	.17	-.22, .51
	Protégé positive role behavior → Relationship quality	.01	-.04, .22
	Mentor positive career behavior	-.09	-.45, .22
	Mentor positive career behavior → Relationship quality	-.00	-.08, .01
	Mentor positive psychosocial behavior	.22	-.16, .74
	Mentor positive psychosocial behavior → Relationship quality	.00	-.01, .13
	Protégé negative role behavior → Relationship quality	-.00	-.04, .01
	Mentor negative role behavior → Relationship quality	-.00	-.02, .00
Mentoring-specific learning	Protégé positive role behavior	-.03	-.43, .34
	Protégé positive role behavior → Relationship quality	-.01	-.26, .09
	Mentor positive career behavior	.11	-.36, .39
	Mentor positive career behavior → Relationship quality	.00	-.03, .07
	Mentor positive psychosocial behavior	.09	-.20, .50
	Mentor positive psychosocial behavior → Relationship quality	-.00	-.18, .02
	Protégé negative role behavior → Relationship quality	.00	-.01, .06
	Mentor negative role behavior → Relationship quality	.00	-.01, .02
Occupational-specific learning	Protégé positive role behavior	.03	-.42, .44
	Protégé positive role behavior → Relationship quality	.02	-.07, .18
	Mentor positive career behavior	.04	-.36, .39
	Mentor positive career behavior → Relationship quality	-.00	-.07, .02

Table 16, continued.

Outcome	Path	Standardized Path Estimate	95% CI
	Mentor positive psychosocial behavior	.15	-.20, .50
	Mentor positive psychosocial behavior → Relationship quality	.01	-.02, .26
	Protégé negative role behavior → Relationship quality	-.01	-.05, .01
	Mentor negative role behavior → Relationship quality	-.00	-.02, .01
Relational learning	Protégé positive role behavior	.04	-.34, .48
	Protégé positive role behavior → Relationship quality	-.01	-.20, .10
	Mentor positive career behavior	.02	-.32, .32
	Mentor positive career behavior → Relationship quality	.00	-.03, .06
	Mentor positive psychosocial behavior	-.05	-.41, .28
	Mentor positive psychosocial behavior → Relationship quality	-.00	-.13, .02
	Protégé negative role behavior → Relationship quality	.00	-.01, .03
	Mentor negative role behavior → Relationship quality	.00	-.01, .02
Behavioral change intentions	Protégé positive role behavior	-.14	-.72, .21
	Protégé positive role behavior → Relationship quality	.00	-.27, .08
	Mentor positive career behavior	.36*	.09, .80
	Mentor positive career behavior → Relationship quality	-.00	-.05, .08
	Mentor positive psychosocial behavior	-.19	-.73, .18
	Mentor positive psychosocial behavior → Relationship quality	.00	-.06, .08
	Protégé negative role behavior → Relationship quality	-.00	-.03, .04
	Mentor negative role behavior → Relationship quality	-.00	-.01, .02

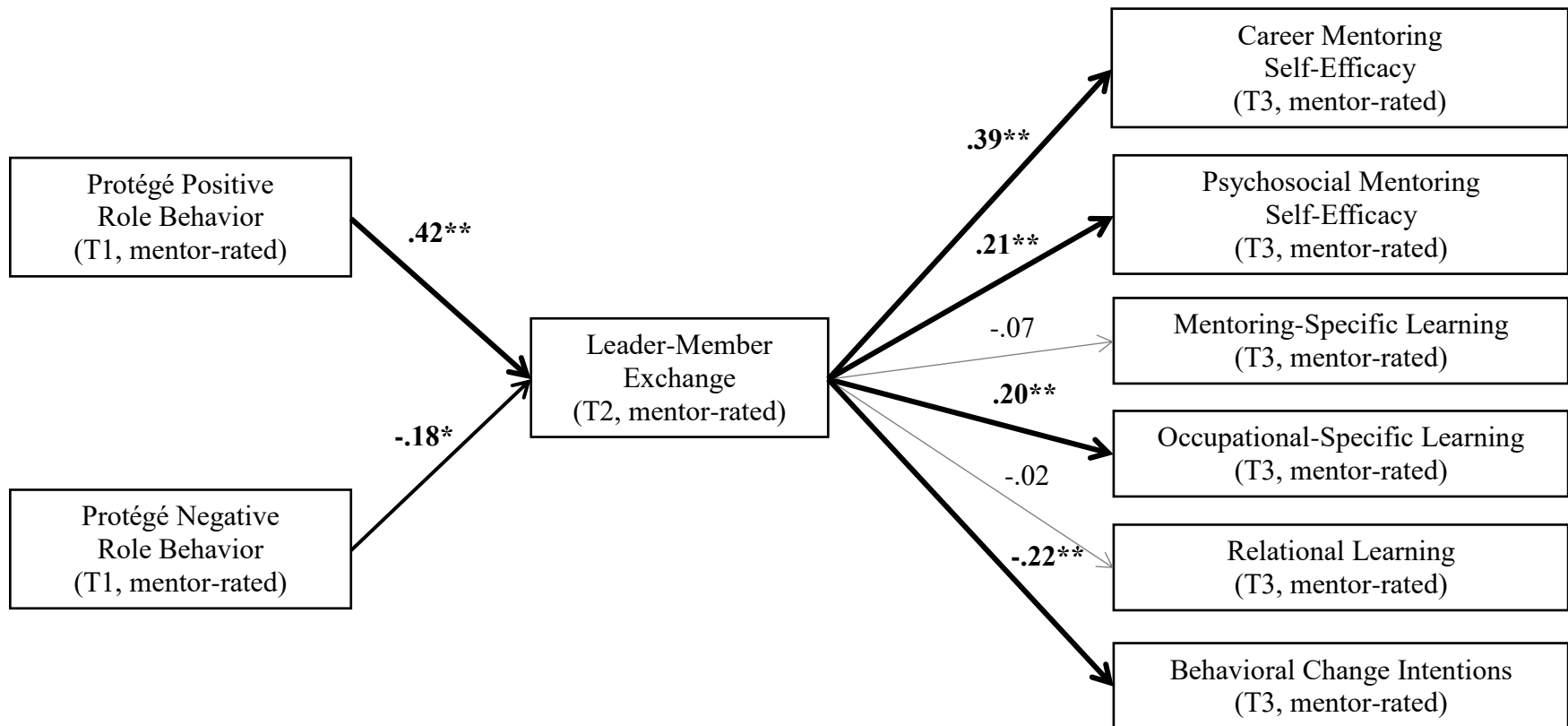
$n = 98$. CI = confidence interval; direct paths are in bold. † $p < .10$, * $p < .05$, ** $p < .01$.

Supplemental Analysis

Given the general lack of support for my hypothesized model with relationship quality as the mediator and because of the conceptual similarity between LMX and relationship quality, I reran my model (fully mediated) using LMX as a mediator and measure of relationship quality. Additionally, I dropped protégé measures of mentor role behavior to increase my sample size to 212. Paths for the control variables were included from mismatch within the dyad to LMX, conscientiousness to career mentoring self-efficacy, and agreeableness to psychosocial mentoring self-efficacy. The model, shown in Figure 3, demonstrated good fit for the data ($\chi^2 = 39.17$, $df = 30$, $p = .12$, $CFI = .98$, $RMSEA = .04$, $SRMR = .04$). Protégé positive role behavior ($\beta = .42$, $p = .00$) had a positive relationship with LMX and protégé negative role behavior ($\beta = -.18$, $p = .02$) had a negative relationship with LMX. Furthermore, I found that LMX was positively related to career mentoring self-efficacy ($\beta = .39$, $p = .00$), psychosocial mentoring self-efficacy ($\beta = .21$, $p = .01$), occupational-specific learning ($\beta = .20$, $p = .00$), and negatively related to behavioral change intentions ($\beta = -.22$, $p = .00$). The indirect effects between protégé positive role behavior and career mentoring self-efficacy ($\beta = .17$, $p = .00$), psychosocial mentoring self-efficacy ($\beta = .09$, $p = .01$), occupational-specific learning ($\beta = .08$, $p = .00$), and behavioral change intentions ($\beta = -.09$, $p = .00$) and protégé negative role behavior and career mentoring self-efficacy ($\beta = -.07$, $p = .05$), were significant. The indirect effects between protégé negative role behavior and psychosocial mentoring self-efficacy ($\beta = -.04$, $p = .053$), occupational-specific learning ($\beta = -.04$, $p = .053$), and behavioral change intentions ($\beta = .04$, $p = .052$) were significant with one-tailed tests.

These results suggest that LMX may be an important variable to consider in the role behavior and mentor learning relationship.

Figure 3. Results of Supplemental Analysis



n = 212. Standardized path estimates are reported. Significant paths are in bold. Control variables are not shown here, but include paths from mismatch within the dyad to leader-member exchange, conscientiousness to career mentoring self-efficacy, and agreeableness to psychosocial mentoring self-efficacy. † *p* < .10, * *p* < .05, ** *p* < .01

CHAPTER VII. DISCUSSION

The purpose of this study was to examine what mentors learn from their relationships with their protégés. Specifically, I examined three research questions:

- 1) What do mentors learn from their mentoring experiences?
- 2) How do mentoring experiences relate to learning?
- 3) Under what conditions do mentoring experiences relate to learning?

First, I conducted a scale validation study to develop and evaluate new measures of protégé positive and negative role behavior and relationship quality. Next, I conducted a mixed methods field study in an academic setting to examine my hypotheses and research question. In the following pages, I outline my main findings, detail the theoretical and practical implications, discuss the strengths and weaknesses of my study, and identify future research directions.

Summary of Findings

In response to my first research question, “What do mentors learn from their mentoring experiences?”, I expanded the realm of mentor learning to include mentoring-specific, occupational-specific, and relational learning. Mentors also identified specific changes they wished to make to their mentoring behavior from their experiences with their protégés. Within the first learning theme, mentoring-specific learning, I identified five subthemes related to gaining mentoring-specific skills: 1) managing the mentoring relationship, 2) adapting the mentoring approach for different protégés, 3) determining strategies for mentoring different topics, 4) improving organizational skills, and 5) giving feedback. Mentors largely described learning how to be better mentors through their

experiences with their protégés, whether it be by becoming better managers of the mentoring relationship or exposure to mentoring new subjects.

Within the second learning theme, occupational-specific learning, I identified three subthemes related to gaining occupational-specific skills: 1) research topics and theories, 2) methods, and 3) teaching. Overall, mentors gained career benefits through learning specific skills that could be utilized to advance their own careers.

Within the third learning theme, relational learning, I identified three subthemes: 1) communication and listening, 2) perspective taking, empathic concern, and patience, and 3) self-awareness. In general, mentors obtained an awareness of others and themselves that would help them in their relationships.

Although primarily not discussed unless probed and therefore not included in the quantified learning measures, mentors expressed learning about support, lack of support, culture, and policies within their own departments or universities. Whereas some organizations provided extensive support for their protégés, others fell short, especially when providing support for diverse student populations.

Finally, I identified five behavioral change intentions themes: 1) establishing clear guidelines and monitoring progress, 2) changing their feedback approach, 3) listening and identifying protégé needs, 4) adapting to protégé needs, and 5) selecting future protégés more carefully. In general, mentors identified and described specific changes they wished to make to their own mentoring.

In response to my second research question, “How do mentoring experiences relate to learning?”, I found that the quality of the relationship does not affect the extent to which mentors learn. Instead positive role behaviors have direct effects on some

mentor outcomes. Specifically, protégé positive role behavior was positively related to career mentoring self-efficacy, mentor positive career behavior was positively related to behavioral change intentions, and mentor positive psychosocial behavior was positively related to career mentoring self-efficacy. Additionally, I found that LMX may be a more appropriate mediator than relationship quality in the relation between role behaviors and mentor learning outcomes.

Finally, in response to my third research question, “Under what conditions do mentoring experiences relate to learning?”, I did not find any boundary conditions for the relation between relationship quality and mentor learning outcomes.

Theoretical Implications

My study contributes to the mentoring literature in four ways. First, I studied role behaviors, relationship quality, and mentor learning outcomes as distinct constructs. Mentoring researchers often confound relationship quality with behavior and outcomes. For example, whereas Eby and colleagues (2010) included positive and negative mentoring experiences from both the protégés’ and mentors’ perspectives, their measures of negative experiences included relational components (e.g., “I feel that our relationship is not as satisfying as it used to be”) which confounded relationship quality with the behavior of the opposite partner. Positive mentoring experiences from the mentors’ perspective included mentor outcomes such as personal satisfaction, job performance, organizational recognition, and loyal base of support for the mentor which assessed mentor outcomes rather than mentors’ perceptions of their protégés’ behaviors. Therefore, my study extends beyond Eby et al. (2010) by developing more refined measures of positive and negative protégé role behaviors that separate these behaviors

from the quality of the relationship and mentoring outcomes. By examining role behaviors, relationship quality, and mentor outcomes as separate constructs, I was able to examine how these constructs related to one another. In addition, and as discussed further below, my study goes beyond Eby et al. (2010) by examining additional outcomes of relationship quality.

Second, as discussed in Chapter II, initial evidence suggests that mentors learn from mentoring, but little is known about *what* mentors learn and *how* they learn it. Previous research identifies learning in general (e.g., “I learned a lot from my protégé”; Allen & Eby, 2003) and personal learning (e.g., communicating, listening, solving problems, and innovatively cultivating relationships with others in the workplace; Lankau & Scandura, 2002) as specific learning outcomes. My study determined what mentors learned from their relationships with their protégés. Accordingly, a major contribution of my study is the identification of three types of mentor learning that result from mentoring experiences. These categories are identified in the following paragraphs.

The first category of mentor learning identified was mentoring-specific learning. Consistent with SLT (Bandura, 1971, 1977a) which suggests that mentors learn through both direct and vicarious experiences, mentors gained mentoring-specific skills through their direct experiences with their protégés. Whereas I suggested that individuals would be more likely to learn in low-quality mentoring relationships, my results did not suggest that the quality of the mentoring relationship affected the amount of mentor learning. Mentors, regardless of relationship quality, reported learning mentoring-specific skills such as improving their relationship management skills, learning the importance of adaptation, learning to mentor multiple topics, gaining organizational skills, and learning

to give better feedback to their protégés. Through the direct experience of mentoring their protégés, mentors gained skills specifically related to mentoring.

The second type of mentor learning was occupational-specific learning. Intentional reverse-mentoring, organized for the purpose of passing technical expertise from the protégé to the mentor, has been utilized as organizations such as Procter and Gamble and General Electric (Greengaard, 2002), however, mentoring for the purpose of learning technical and career-relevant skills has not been examined in the academic literature. I found that mentors learned occupational-specific skills related to exposure to new theories and research topics, learning new methods, and teaching. These findings are consistent with SLT, which suggests that by observing their protégés' behavior and ideas (through vicarious experience), mentors can gain knowledge that will benefit them in their careers. Specifically, by observing and engaging in successes and failures within their protégés' own research, mentors gained occupational-specific knowledge.

Furthermore, in the mentoring literature, researchers have long suggested that mentors receive career benefits from mentoring, including career advancement (Johnson et al., 2001), recognition from others (Eby et al., 2006), promotions (Allen et al., 2006), career success and income (Allen et al., 2006; Bozionelos, 2004; Collins, 1994). Similarly, mentors' self-enhancement motives positively related to career mentoring (Allen, 2003). These findings suggest that mentors should mentor to gain organizational and occupational benefits due to the recognition received from engaging in mentoring activities. Specific to academia, mentors may also gain prestige from mentoring students who go on to become prolific researchers in their field. Instead, my study suggests that

beyond organizational and occupational rewards, mentors benefit in their career due to the theoretical and methodological skills gained during the mentoring process.

The third major category of mentor learning was relational learning. Similar to Kram's (1996) original definition, personal learning is defined as attaining knowledge, skills, and competencies for individual development purposes, such as self-reflection, self-disclosure, active listening, empathy, and feedback. Lankau and Scandura (2002) developed a quantitative measure for personal learning that included personal skill development dimension of communication, listening, and sensitivity to others. Whereas my findings largely support the inclusion of communication and listening, I found wide support for placing more emphasis on additional concepts identified in Kram's original work, such as perspective taking, empathic concern, patience, and self-awareness.

Within the relational learning theme, mentors described engaging in perspective taking, which I define as an active, psychological process that involves perceiving the world from another's viewpoint and trying to understand the "thoughts, motives, and/or feelings of a target, as well as why they think and/or feel the way they do" (Parker, Atkins, & Axtell, 2008, p. 151). Parker and colleagues define *active* perspective taking as an intentional process and differentiate it from *effective perspective taking*, or the extent to which attempting to comprehend another's perspective is successful. Based on the scope of the qualitative responses (i.e., mentor responses only, limited in context), it cannot be determined whether or not the perspective taking mentors engaged in was effective or not. Despite this, mentors still described a change in the way that they worked with their protégés based on their perception of their protégés' situations. Many mentors gained insight into how marginalized populations experienced the PhD process.

In these situations, mentors demonstrated empathic concern and patience in their encounters with their students. Empathic concern is defined as sympathy, worry, or compassion for others (Davis, 1983). In other words, mentors were made aware of and reconsidered how their typical rhetoric and approach to mentoring would influence their protégés, particularly in reference to protégés from diverse backgrounds.

Third, I sought to examine the theoretical explanation between mentoring behavior and mentor learning. According to SLT, learning occurs when reinforcing consequences make individuals aware of what they must do to gain beneficial outcomes or avoid negative outcomes. As such, I predicted that role behaviors would influence relationship quality, which would in turn positively relate to mentoring self-efficacy and negatively relate to the amount of mentor learning and behavioral change intentions. Within this framework, I hoped to identify additional outcomes of negative mentoring experiences. My results suggest that whereas mentors do learn, the quality of the relationship, defined as the overall affective assessment of the relationship (Eby et al., 2010; Humberd & Rouse, 2015), has little to do with mentor learning. Instead, I found that protégé positive role behavior and mentor positive psychosocial behavior had positive, direct effects on career mentoring self-efficacy. This suggests that positive behaviors inform mentors of the extent to which they are engaging in appropriate mentoring behaviors, but do not necessarily affect the quality of the mentoring relationship. Additionally, negative role behaviors did not influence relationship quality or the extent to which mentors learned. Although not in the expected direction, mentor positive career behavior had a direct, positive effect on behavioral change intentions. This positive relationship suggests that even though mentors engage in positive career

behaviors such as helping their protégés get involved in challenging projects and other activities that advance their careers, they still wish to change aspects of their mentoring, including setting expectations, identifying and adapting to protégé needs, and providing more constructive feedback.

In contrast, LMX demonstrated promising results related to mentor learning outcomes. LMX recognizes that leaders (i.e., mentors) create differential relationships with their members (i.e., protégés) based on the effort, resources, and support exchanged between the two parties (Dansereau, Graen, & Haga, 1975; Graen & Cashman, 1975). Initially, I did not focus on LMX due to the differing goals of a leader-member relationship versus a mentoring relationship. In a leader-member relationship, a leader focuses on making sure the organization or department is successful and the member's job is completed successfully. In a mentor-protégé relationship, mentors are more concerned about the vocational and personal successes of their protégés. However, in an academic setting, leader/mentor goals may be indistinguishable. For example, a leader's goal to make sure the job is completed correctly (e.g., successfully publishing research) may be indistinguishable from the goals of the mentor (e.g., career and personal development by successfully publishing research). Furthermore, LMX may have stronger relationships with mentor learning outcomes due to the more specific method of assessment. Relationship quality is measured broadly, as a general overall assessment of the relationship (e.g., "My protégé and I have a high-quality relationship"), versus the more specific focus on the four types of relationship exchanges in LMX measurement: 1) contribution, which are task-related behaviors each member of the exchange relationship puts forth to reach mutual goals, 2) loyalty or each party's support of behavior and

character, 3) affect or mutual liking, and 4) professional respect, or the mutual regard for the other party's capabilities (e.g., Liden & Maslyn, 1998).

Finally, I introduced the construct, mentoring self-efficacy, or the perceived capabilities of the mentor to effectively execute career and psychosocial mentoring functions. I found that mentors' positive experiences with their protégés (defined as protégé positive role behavior) were positively related to career mentoring self-efficacy three months later, suggesting that mentors' appraisals of their protégés' positive behavior lead mentors to feel increased competence, identity, and effectiveness in their mentoring roles. Additionally, mentor positive career behavior had a positive relationship with career mentoring-self-efficacy three months later, which suggests that mentors who engage in positive career behavior also feel increased self-efficacy through their own positive experiences and role behaviors.

Practical Implications

Based on the results of my study, I have identified several practical implications. First, many mentors identified behavioral change intentions related to basic mentoring concepts. Most faculty members are given protégés without instruction on best practices for establishing this mentoring relationship. Although a large part of professors' jobs, mentoring is an area much like teaching or service where academics get little training or exposure before getting thrown into the task. A greater focus should be on training professors to be effective mentors and fostering effective mentoring relationships with their protégés. Specifically, programs focused on training mentors to establish guidelines and manage their mentoring relationships, deliver more effective feedback, and identify and adapt to protégé needs can facilitate more effective relationships.

Second, facilitating an inclusive environment that supports diverse populations is a significant challenge for organizations (Mor Barak, 2017; Shore et al., 2011). My findings suggest that one way employees may become more cognizant of diverse backgrounds is through the mentoring process. The mentors in my study reported engaging in active perspective taking wherein they sought to see the world and the experience of graduate school from their protégés' perspectives. Engaging in perspective taking allowed mentors to have greater empathic concern for their protégés and other individuals from diverse backgrounds. Similarly, Parker and colleagues identified perspective taking as a potential method for managing diversity, and Brickson (2000) proposed that perspective taking by the majority population within an organization will benefit minority individuals within the organization.

Additionally, this familiarity gained about others' perspectives often led to the realization within the organization that their department or university was not as supportive for marginalized groups as they had hoped or thought. By recognizing the needs of diverse students through their mentoring experiences, mentors became more aware of resources that other groups needed in order to be successful. From this renewed perspective, mentors identified areas of improvement within their departments and/or organizations which would help to develop protégés from diverse backgrounds. Similarly, mentors who engaged in behaviors that provided psychological support to diverse protégés (mentor positive psychosocial behavior) gained confidence in their ability to provide career mentoring.

Protégé positive behaviors, such as asking for advice and feedback, demonstrating appreciation for guidance, and discussing concerns or problems with their mentors,

increased mentors' beliefs that they were effective at giving occupational-specific mentoring. The more that protégés actively engaged in the mentoring relationship, the better mentors felt about their ability to deliver career guidance. In the workplace, protégés should engage in active, positive role behaviors in order to enhance mentors' confidence in their abilities to provide career mentoring.

Finally, I found that mentoring has benefits to mentors beyond traditional career outcomes. Mentors learned skills that are indeed transferrable to their careers (i.e., methodological, theoretical, and teaching), but also gained knowledge and awareness of their own skills and shortcomings that will benefit them in multiple areas of their lives.

Strengths and Limitations

My study has several strengths. First, the study design is time-lagged over three time periods in an effort to reduce common method bias that may result from the utilization of all self-report measures (Podsakoff et al., 2003). Second, mentor behavioral change intentions and learning were assessed using open-ended questions, which decreased potentially inflated or socially desirable responses. By integrating a parallel/simultaneous mixed methods design, I evaluated previously unexplored mentor behavioral change intentions and learning from mentoring experiences. Finally, I developed and validated mentor's perceptions of protégé role behavior and relationship quality scales to differentiate between behavior and relationship quality.

While the proposed study has multiple strengths, I also encountered several challenges. First, due to the time-lagged design, I started with a very large sample size at Time 1 to account for expected attrition across the other two surveys. Even though I started with almost 6,000 targeted participants, my response rate was extremely low

(10.0%) and I ended up with a smaller sample size than I had hoped. To test for evidence of nonresponse bias, I compared my respondents to nonrespondents using archival data (Rogelberg & Stanton, 2007). Although the results of my one-way ANOVA indicated that differences existed between respondents and nonrespondents for gender and college, the results of my structural model with only control variables indicated that gender and college were not related to relationship quality and mentor outcomes. Thus, I concluded that nonresponse bias was not a major concern in my study. Nevertheless, the small sample size limited the types of analyses I could perform.

Second, mentor and protégé negative role behaviors are low base-rate phenomena. Despite this, previous research demonstrated that negative mentoring experiences have substantial impact on mentor and protégé attitudes (Eby et al., 2010; Eby et al., 2004; Eby, Durley, et al., 2008). However, my negative role behavior measures had very little variance. To increase the variance of the protégé and mentor negative role behavior measures, I used a summative scale in an attempt to remedy the low base rate, however, means were still very low for the negative behaviors. Furthermore, I did not find effects between negative role behaviors and relationship quality, and relationship quality and mentor outcomes. Additionally, my newly developed measure of relationship quality only assesses high-quality relationships (or low levels of high-quality relationships) and does not assess low-quality relationships, which may further explain why I did not find that negative role behaviors related to relationship quality. In the future, including a scale that also measures low-quality relationships may influence the negative role behavior to relationship quality relation.

Finally, the design of my study did not allow me to test for causality. Although the time-lagged design helps account for common method variance, it does not determine causation.

Future Research

In the future, I will examine the interaction of positive and negative role behaviors to see how they impact relationship quality and/or LMX. Whereas only protégé positive role behavior had a relationship with relationship quality, the quality of the relationship may actually depend on some combination of positive and negative role behaviors. For example, the positive relationship between protégé positive role behavior and relationship quality might be stronger when protégé negative role behavior is low versus high.

Another future research avenue relates to the exploration of perspective taking and empathic concern within the mentoring context. My initial results suggest that mentoring could help foster an inclusive environment through the active process of perspective taking. Mentors who engage in active perspective taking may be more effective at managing diversity within the workforce. Parker and colleagues (2008) further proposed that individuals who engage in effective perspective taking may be less likely to make attribution errors in the workplace. For example, the actor-observer bias (Jones & Nisbett, 1971), which maintains that individuals tend to attribute failures to others' traits or dispositions, but tend to attribute their own failures to the situation. Mentors who seek to understand the perspectives of their protégés will be more likely to recognize when situational factors are in fact inhibiting protégé success.

Finally, I collected protégé-reports of mentor positive career and psychosocial behavior at Times 1, 2, and 3. I plan to use latent growth modeling to examine how

mentors' positive or negative experiences with their protégés influence the trajectory of mentor positive role behavior across the three time periods.

Conclusion

In sum, the purpose of this study was to examine what mentors learn from mentoring experiences and how these experiences relate to mentor learning. I found that mentors gained mentoring-specific, occupational-specific, and relational knowledge from mentoring their protégés. Additionally, mentors identified specific changes they wished to make to their mentoring behavior from their experiences with their protégés. I found that protégé positive role behavior and mentor positive psychosocial behavior was directly related to career mentoring self-efficacy. Mentor positive career behavior was positively related to behavioral change intentions and protégé positive role behavior was positively related to relationship quality. I found that relationship quality did not mediate the relationship between role behaviors and mentor learning outcomes. Finally, I did not find support for the moderating effects of internal attribution for relationship quality, growth mindset, and feedback seeking.

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APPENDIX A

Interview Protocol for Pilot Study

Background Questions

Before we begin, I have some background questions for you.

1. Tell me about your career history to date.
2. What is your current role? What are your supervisory responsibilities?
3. How many years have you been a supervisor?
4. What are your mentoring responsibilities (either formal or informal)?
5. What have been your informal or formal mentoring responsibilities in the past?

Mentor Experience with Protégé – Disappointing Career Decision

1. I'm going to give you a moment to think about the high-potential mentee who made the career decision that disappointed or upset you.
2. Tell me a little bit about this person.
 - a. Potential probes:
 - i. Gender
 - ii. Ethnicity
 - iii. Age
 - iv. Direct report?
3. Tell me about your relationship with this individual.
 - a. Potential probes:
 - i. When did you first meet the individual?
 - ii. (If direct report) Were you involved in hiring the individual or recruiting the individual to your area?
 - iii. Was it a formal or informal mentoring relationship?
 - iv. How long did you work with the individual?
 - v. What were the individual's responsibilities?
 - vi. How would you describe the quality of your relationship with the individual?
4. Tell me about the decision this employee made that disappointed you.
 - a. Potential probes:
 - i. What did the mentee do?
 - ii. Was it unexpected?
 - iii. How did you find out about it?
 - iv. What were your initial reactions? How did this experience make you feel?
5. How has this experience impacted your work with your current employees/mentees?
 - a. Potential probes:
 - i. How do you expect this experience will affect your relationships with future employees/mentees?
 - ii. Do you think about this experience when working with other employees/mentees? Explain.

- iii. Do you think this has or will improve over time? Why or why not?
6. How has this experience impacted your attitude toward work?
7. Has this experience impacted you personally? How?
8. Have you experienced any repercussions from your organization or other coworkers/supervisors as a result of this experience?
9. What else would you like to tell me about this experience?

Demographics

Finally, would you be willing to answer a few demographic questions?

1. What is your age?
2. What is your gender?
3. What is your ethnicity?

Thank you so much for your time. Please let me know if any questions come up about the study.

APPENDIX B

Original Items for Scale Validation Study

The items below are the full set of scale items used in the scale validation study.

Mentor Perceptions of Protégé Positive Role Behavior

1. My protégé heeds my advice.^a
2. My protégé demonstrates appreciation for my guidance.^a
3. My protégé exerts effort toward self-improvement.^a
4. My protégé asks for my advice.^b
5. My protégé puts forth effort in attending functions as requested.^c
6. My protégé interacts with me on a personal level.^c
7. My protégé models personal behavior after mine.^c
8. My protégé models professional behavior after mine (meeting deadlines, arriving to meetings on time, etc.)^c
9. My protégé shows a personal interest in me and my values, goals, and aspirations.^c
10. My protégé discusses any concerns or problems which may hinder his/her success.^c
11. My protégé puts forth discretionary effort beyond that required by a project.^c
12. My protégé shows interest in prestigious or professionally useful projects valued by the university.^c
13. My protégé requests advice or information on projects or strategies to enhance his/her ability to achieve objectives, recognition, or career aspirations.^c
14. My protégé seeks advice on risky projects before problems arise or provides me with information about current projects which may be problematic.^c
15. My protégé accepts or requests projects which enhance his/her technical knowledge.^c
16. My protégé is prepared to discuss relevant issues with newly made contacts.^c

1 = To a very little extent; 5 = To a very great extent

^aItems were developed based on the definition of what proteges are expected to do presented in Eby, Durley, Evans, and Ragins (2008) based on research by Kram (1985) and Young and Perrewé (2000).

^bItems were developed based on Allen, Poteet, and Burrough's (1997) content analysis identifying "Individual Reasons for Mentoring." Items relating to protégé behavior were selected..

^cItems were pulled from Young and Perrewé's (2000) measure of role behaviors from the mentor's perspective.

Mentor Perceptions of Protégé Negative Role Behavior

Protégé Performance Problems

1. My protégé does not do high quality work. (protégé performance below expectations)
2. My protégé has performance problems on the job. (protégé performance below expectations)
3. My protégé's performance does not meet my expectations. (protégé performance below expectations)
4. My protégé does not seem willing to learn. (protégé unwillingness to learn)
5. My protégé does not seem interested in learning better ways of doing things. (protégé unwillingness to learn)
6. My protégé is reluctant to change his/her behavior in response to feedback. (protégé unwillingness to learn)

Interpersonal Problems

7. My protégé uses flattery to make me like him/her more. (impression management and gamesmanship)
8. My protégé often "kisses up" to superiors. (impression management and gamesmanship)
9. My protégé engages in political game-playing. (impression management and gamesmanship)
10. My protégé is too reliant on me for work-related advice. (protégé submissiveness)
11. My protégé is too dependent on our mentoring relationship. (protégé submissiveness)
12. My protégé has trouble doing things without a lot of guidance from me. (protégé submissiveness)

Destructive Relational Patterns

13. My protégé lets his/her personal goals take priority over the interests of others. (protégé exploitive behavior)
14. My protégé acts like he/she is better than others. (protégé exploitive behavior)
15. My protégé has misled me. (breach of mentor trust)
16. My protégé sometimes distorts the truth. (breach of mentor trust)
17. My protégé has deceived me. (breach of mentor trust)
18. My protégé tries to damage my reputation at work. (protégé sabotage)
19. My protégé tries to sabotage me at work. (protégé sabotage)
20. My protégé attempts to "get back" at me. (protégé sabotage)

New Items Developed from Pilot Study:

21. My protégé does not listen to my advice.
22. My protégé has made some career decisions that disappointed me.
23. My protégé does not make efforts to advance in his/her career.

1 = To a very little extent; 5 = To a very great extent

Scale modified from the brief measure of negative mentoring experiences developed by Eby, Durley, Evans, & Ragins, (2008). The subdimensions of mentor-protégé conflict and relationship deterioration were removed because they referred to relationship quality rather than protégé behavior. The item “My protégé has a self-serving attitude” and the jealousy and competitiveness items were removed because they refer to attitudes rather than behavior. The subdimension related to harassment was removed. Finally, The subdimension related to self-destructive behavior was removed because the items related to behavior outside of work.

Mentor Perceptions of Relationship Quality

Think about the mentoring relationship you described in the first set of questions. This protégé should be the same person you answered the previous questions in reference to above. When thinking about this particular mentoring relationship, please indicate your agreement with the following statements.

1. I like my protégé very much. (liking)^a
2. I get along well with this protégé. (liking)^a
3. Mentoring this protégé is a pleasure. (liking)^a
4. I think this protégé would make a good friend. (liking)^a
5. My protégé and I respect each other.(shared influence and respect)^b
6. My protégé and I influence each other. (shared influence and respect)^b
7. My protégé and I value what each person has to say. (shared influence and respect)^b
8. There is mutual respect in our relationship. (shared influence and respect)^b
9. There is mutual influence in our relationship. (shared influence and respect)^b
10. My protégé and I trust each other. (trust and commitment)^b
11. My protégé and I are committed to the relationship. (trust and commitment)^b
12. Trust and commitment are central to our relationship. (trust and commitment)^b
13. In our relationship, we help each other without expecting repayment. (communal norms)^b
14. We never keep score of who gives and who gets in our relationship. (communal norms)^b
15. We give to each other without expecting repayment. (communal norms)^b
16. Our mentoring relationship is very effective. (overall relationship quality)^c
17. I am very satisfied with our mentoring relationship. (overall relationship quality)^c
18. My protégé and I enjoy a high-quality relationship. (overall relationship quality)^c
19. Both my protégé and I benefit from the relationship. (overall relationship quality)^c
20. We have a good relationship.^d

1 = strongly disagree; 5 = strongly agree

^aItems were adapted from Wayne and Ferris’s (1990) measure of affect in supervisor-subordinate relationships.

^bItems were pulled from the shared influence and respect, trust and commitment, and communal norms dimensions of Ragins (2012) relational mentoring index. Double-barreled items were adapted for clarity. The relational mentoring index includes characteristics, behaviors, and outcomes of high-quality mentoring. Because I am interested in relationship quality, any items related to behaviors or outcomes were removed. The personal learning and growth, inspiration, and affirmation (ideal self, best self, and authentic self) dimensions were not included because they are outcomes of high-quality mentoring relationships.

^cItems were pulled from the relationship quality measure by Allen and Eby (2003).

^dItem pulled from Norton's Quality of Marriage Index (QMI; Norton, 1983).

APPENDIX C

Measures – Mentor

Pre-Questions (Time 1)

Description for Survey: Mentors are persons usually considered more experienced, who support, train, or “teach the ropes to” others as they pursue their career goals. Those that they mentor are usually referred to as “protégés.” For the purposes of this study, we are interested in protégés who are PhD students. Example mentoring behaviors include introducing your protégé to others within the university, listening to the protégé’s career or personal problems or challenges, sharing your own career or personal stories with the protégé, and/or providing career guidance to the protégé.

Are you currently a mentor to a PhD student?

- Yes
 No
 Unsure

Is this your first mentoring relationship?

- Yes
 No

If you currently mentor more than one individual, please answer the following questions in terms of the mentoring relationship that started most recently. This protégé should be someone you have mentored for at least six months and plan to mentor for at least four more months. Keep this specific protégé in mind for the remainder of the survey.

The two follow-up surveys will ask questions about this specific protégé. To remind yourself which protégé you selected, please insert a first name, nickname, or initials _____ . We will include this identifier in your next two surveys.

Have you mentored this individual for at least six months?

- Yes
 No

Do you plan to mentor this individual for the next four months?

- Yes
 No

How long have you been a mentor to this protégé? If greater than one year, type in the number of years and months. If less than one year, just type in the number of months.

- _____ Years
_____ Months

What is this protégé’s gender?

____ Male
____ Female

Screening/pre-questions adapted from Ragins (2012). Mentor definition is pulled from Allen, Poteet, Russell, & Dobbins (1997, p. 9).

Mentor Perceptions of Protégé Positive Role Behavior (Time 1)

Description for Survey: Think about the mentoring relationship you described in the first set of questions. When thinking about this particular mentoring relationship, please indicate the extent to which you have experienced the following with your protégé.

1. My protégé accepts or requests projects from me, which enhance his/her technical knowledge.
2. My protégé asks for my advice.
3. My protégé demonstrates appreciation for my guidance.
4. My protégé discusses any concerns or problems with me which may hinder his/her success.
5. My protégé heeds my advice.
6. My protégé requests my advice or information on projects or strategies to enhance his/her ability to achieve objectives, recognition, or career aspirations.
7. My protégé seeks my advice on risky projects before problems arise or provides me with information about current projects which may be problematic.
8. My protégé asks for my feedback relevant to self-improvement goals.

1 = To a very little extent; 5 = To a very great extent

Mentor Perceptions of Protégé Negative Role Behavior (Time 1)

Description: Think about the mentoring relationship you described in the first set of questions. This protégé should be the same person you answered the previous questions in reference to above. When thinking about this particular mentoring relationship, please indicate the extent to which you have experienced the following with your protégé.

Protégé Performance Problems

1. My protégé's performance does not meet my expectations.
2. My protégé does not seem interested in learning better ways of doing things from me.
3. My protégé does not seem willing to learn from me.

Destructive Relational Patterns

4. My protégé has misled me.
5. My protégé has deceived me.
6. My protégé tries to damage my reputation at work.
7. My protégé tries to sabotage me at work.
8. My protégé seeks advice from others when s/he doesn't agree with me.

1 = To a very little extent; 5 = To a very great extent

Mentor Perceptions of Relationship Quality (Times 1, 2, & 3)

Description: Think about the mentoring relationship you described in the first set of questions. This protégé should be the same person you answered the previous questions in reference to above. When thinking about this particular mentoring relationship, please indicate your agreement with the following statements.

1. My protégé and I enjoy a high-quality relationship.^a
2. I am satisfied with our mentoring relationship.^a
3. Our mentoring relationship is effective.^a
4. My protégé and I have a good relationship.^a
5. My protégé and I trust each other.^a
6. I like my protégé very much.
7. I get along well with this protégé.^a
8. Mentoring this protégé is a pleasure.^a

1 = strongly disagree; 5 = strongly agree

^a Items retained for hypothesis testing.

Mentoring Self-Efficacy (Times 1 & 3)

Description: How confident are you in your ability to successfully do the following types of mentoring tasks? Answer these questions with respect to mentoring in general, and not with regard to any specific protégé.

Career

1. Give or recommend a protégé for challenging research projects or teaching activities that present opportunities to learn new skills?^{a b}
2. Give or recommend a protégé for research projects or teaching that require personal contact with other professors in your department?^{a b}
3. Give or recommend a protégé for research projects or other activities that increase his/her contact with higher level academics?^{a b}
4. Give or recommend a protégé for research projects or other activities that help him/her meet new colleagues?^{a b}
5. Help a protégé finish projects/tasks or meet deadlines that otherwise are difficult to complete?
6. Protect a protégé from working with other professors before you know about their likes/dislikes, opinions on controversial topics, and the nature of the political environment?
7. Go out of your way to promote a protégé's career interests?
8. Keep a protégé informed about what is going on at higher levels in the university or how external conditions are influencing the university?

9. Help a protégé apply for grants?
10. Provide a protégé with opportunities to collaborate on projects with high-potential for publication?^{a b}
11. Give a protégé advice on finding a job?
12. Help a protégé submit projects to conferences?

Psychosocial

13. Convey feelings of respect for a protégé?
14. Convey empathy for the concerns and feelings discussed with a protégé?^{a b}
15. Encourage a protégé to talk openly about anxiety and fears that detract from his/her work?^{a b}
16. Share personal experiences as an alternative perspective to a protégé's problems?^{a b}
17. Discuss a protégé's questions or concerns regarding feelings of competence, commitment to advancement, relationships with other graduate students, professors, or work/family conflicts?^{a b}
18. Share your career history with a protégé?
19. Encourage a protégé to prepare for the job market?
20. Encourage a protégé to try new ways of behaving as an academic?
21. Serve as a role model for a protégé?
22. Display attitudes and values similar to a protégé's?
23. Discuss graduate school challenges with a protégé?^a

1 = not at all confident; 2 = a little confident; 3 = moderately confident; 4 = confident; 5 = very confident

This scale was adapted from Ng, Ang, & Chan (2008). Mentoring functions were adapted from Dreher and Ash (1990) to refer to an academic setting. Following Green and Bauer (1995), items relating to collaboration were included.

^a Based on a principal axis factor analysis with the Time 1 mentoring self-efficacy responses ($n = 371$), the five items with the highest factor loadings were included for each dimension at Time 3.

^b Items retained for hypothesis testing based on a principal axis factor analysis with the Time 3 mentoring self-efficacy responses not utilized for hypothesis testing ($n = 148$).

Control Variables and Demographics (Time 1)

Mentoring Experience

How many PhD students have you mentored (including the protégé reported on in these surveys)? _____

How long have you been a mentor (either formally or informally), including other protégés besides the one reported in these surveys? If greater than one year, type in the number of years and months. If less than one year, just type in the number of months.

____ Years
____ Months

How many mentors have you had?

Trait Negative Affect

Description: Please answer the next set of questions about yourself. This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you generally feel this way, that is, how you feel on average. Use the following scale to record your answers.

1. Distressed
2. Upset
3. Guilty
4. Scared
5. Hostile
6. Irritable
7. Ashamed
8. Nervous
9. Jittery
10. Afraid

1 = very slightly or not at all; 2 = a little; 3 = moderately; 4 = quite a bit; 5 = extremely

Items are from Watson, Clark, and Tellegen (1988).

Openness to Experience, Extraversion, Conscientiousness, Agreeableness, and

Neuroticism

Description: Please indicate how well each of the following statements characterizes your thoughts, feelings, or actions using the following scale.

Openness to Experience

1. I have a vivid imagination.
2. I am not interested in abstract ideas. (reverse)
3. I have difficulty understanding abstract ideas. (reverse)
4. I do not have a good imagination. (reverse)

Extraversion

1. I am the life of the party.
2. I don't talk a lot. (reverse)
3. I talk to a lot of different people at parties.
4. I keep in the background. (reverse)

Conscientiousness

1. I get chores done right away.
2. I often forget to put things back in their proper place. (reverse)
3. I like order.
4. I make a mess of things. (reverse)

Agreeableness

1. I sympathize with others' feelings.
2. I am not interested in other people's problems. (reverse)
3. I feel others' emotions.
4. I am not really interested in others. (reverse)

Neuroticism

1. I have frequent mood swings.
2. I am relaxed most of the time. (reverse)
3. I get upset easily.
4. I seldom feel blue. (reverse)

1 = strongly disagree; 5 = strongly agree

Items are from the 20-item Mini-IPIP (Donnellan et al., 2006).

Demographics

How many hours on average do you work per week? _____

Gender: Male_____ Female_____

Current Age: _____years

Which category most closely describes your race?

White

Black

Hispanic

Asian

Other

How long have you been working at your current position? If greater than one year, type in the number of years and months. If less than one year, just type in the number of months.

_____ Months
_____ Years

What is your current rank?

_____ Assistant Professor
_____ Associate Professor
_____ Full Professor
_____ Chaired Professor

How long have you been at this rank? If greater than one year, type in the number of years and months. If less than one year, just type in the number of months.

_____ Months
_____ Years

How many universities have you worked for in a full-time position (including your current university)? _____

How many organizations outside of academia have you worked for in a full-time position (including self-employment)? _____

How long has it been since you completed your PhD? If greater than one year, type in the number of years and months. If less than one year, just type in the number of months.

_____ Months
_____ Years

We are interested in understanding the interaction of both mentors and protégés in mentoring relationships and what factors contribute to successful mentoring relationships. To facilitate this, we are interested in surveying the protégé you referenced in this survey. If you are interested in including your protégé in this study, your responses will NOT be shared with your protégé in any way. By selecting yes to the question below, we will email you information and a link to the study to forward to your protégé. After the first survey, we will email your protégé directly for the remaining two surveys.

If you would like to forward information and a link to the protégé portion of the study to your protégé, please select yes below:

_____ Yes
_____ No

Internal Attribution for Relationship Quality (Time 2)

Description: Think about your relationship with your protégé. For each row, please select the point that best reflects the cause(s) of the quality of the relationship.

The quality of this relationship...

1	2	3	4	5	6	7	8	9
Is not manageable by you						Is manageable by you		
Cannot be regulated by you						Can be regulated by you		
Reflects something outside of you						Reflects something inside of you		
Is caused by something about your protégé						Is caused by something about you		
Is something over which you have no power				Is something over which you have power				
Reflects an aspect of the situation						Reflects an aspect of yourself		

Items are from the locus of causality and personal control dimensions from the Revised Causal Dimension Scale (McCauley, Duncan, & Russell, 1992; Russell, 1982; Russell, McAuley, & Tarico, 1987).

Mismatch Within the Dyad (Time 2)

Description: Please indicate the extent to which you agree with the following statements. All answers will be confidential.

1. The personal values of my protégé are different from my own.
2. My protégé and I have different life priorities.
3. My protégé and I have different work habits.
4. My work strategies are different from my protégé's.
5. My protégé and I have a different understanding of effective work performance.
6. My protégé and I have different personal dispositions.
7. Comparing myself to my protégé, I would say our temperaments are different.
8. My protégé and I have similar personalities.
9. My protégé and I are different from one another.

1 = strongly disagree; 5 = strongly agree

Items are from Eby, Butts, Lockwood, and Simon (2004).

Leader-Member Exchange (Time 2)

Description: When thinking about your mentoring relationship, please indicate your agreement with the following statements.

1. I respect my protégé's knowledge of and competence on the job.

2. My protégé would defend me to others in the university if I made an honest mistake.
3. My protégé is the kind of person one would like to have as a friend.
4. I do not mind working my hardest for my protégé.
5. My protégé would come to my defense if I were “attacked” by others.
6. I like my protégé very much as a person.
7. I provide support and resources for my protégé that goes beyond what is specified in my job description.
8. I admire my protégé’s professional skills.
9. My protégé defends my decisions, even without complete knowledge of the issue in question.
10. My protégé is a lot of fun to work with.
11. I am willing to apply extra efforts, beyond those normally required, to help my protégé meet his or her work goals.
12. I am impressed with my protégé’s knowledge of his/her job.

1 = strongly disagree; 5 = strongly agree

Items pulled from Greguras and Ford (2006). The scale assesses four dimensions. Items 1, 8, and 12 refer to professional respect. Items 2, 5, and 9 refer to loyalty. Items 3, 6, and 10 refer to affect, and items 4, 7, and 11 refer to contribution.

Growth Mindset (Time 2)

Description: Please indicate your agreement with the following statements.

1. You have a certain amount of mentoring ability, and you really can’t do much to change it.
2. Your mentoring ability is something about you that you can’t change very much.
3. Being a “mentor” or not is something that you really cannot change. Some people are good mentors and other people aren’t.

1 = strongly disagree; 5 = strongly agree

Items pulled from Dweck and colleagues (1995). Items were adapted to refer to mentoring ability rather than intelligence. Items were reverse-scored to refer to growth mindset rather than fixed mindset.

Feedback seeking (Time 2)

Description: In order to find out how well you are performing as a mentor, how FREQUENTLY do you

1. Seek information from other faculty members about your mentoring?
2. Seek feedback from your department chair about your mentoring?

3. Seek feedback from your former PhD students on how you could improve your mentoring?
4. Pay attention to how your peers mentor their students?
5. Observe what mentoring behaviors your college/school rewards and use this as feedback on your own performance?
6. Compare yourself with peers (other professors)?

1 = very infrequently; 2 = rarely; 3 = occasionally; 4 = frequently; 5 = very frequently

Items are adapted from Ashford (1986) to refer to mentoring rather than performance. Items 1 – 3 refer to the inquiry dimension and items 4 – 6 refer to the monitoring dimension.

Department Structure (Time 2)

Does your department formally assign doctoral students to faculty mentors?

Yes _____

No _____

Were you able to select this doctoral student as your protégé?

Yes _____

No _____

Are you responsible for funding your doctoral student?

Yes _____

No _____

Partially _____

How many doctoral students are you currently mentoring?

Mentor Learning (Time 3)

Thinking about this your experience with your student, what you have you learned or how you have grown from this relationship?

Thinking about this your experience with your student, what you have you learned about **yourself** from this relationship?

Thinking about this your experience with your student, what you have you learned about **your organization** from this relationship?

Thinking about this your experience with your student, what you have you learned about **working with others** from this relationship?

Thinking about this your experience with your student, what you have you learned about **mentoring** from this relationship?

Mentor Personal Learning (Time 3)

Thinking about your experience with your protégé, indicate your agreement with the following statements.

1. I have learned how to communicate effectively with others in the workplace.
2. I have improved my listening skills in the workplace.
3. I have developed new ideas about how to perform my job in the workplace.
4. I have become more sensitive to others' feelings and attitudes in the workplace.
5. I have gained new skills in the workplace.
6. I have expanded the way I think about things in the workplace.

1 = strongly disagree; 5 = strongly agree

Items are pulled from the personal skill development dimension of Lankau and Scandura's (2002) personal learning measure.

Mentor General Learning (Time 3)

Thinking about your experience with your protégé, indicate your agreement with the following statements.

1. I learned a lot from my protégé.
2. My protégé gave me a new perspective on many things.
3. My protégé and I were "co-learners" in the mentoring relationship.
4. There was reciprocal learning that took place between my protégé and I.
5. My protégé shared a lot of information with me that helped my own professional development.

1 = strongly disagree; 5 = strongly agree

Items are pulled from the relationship learning measure developed by Allen & Eby (2003).

Mentor Behavioral Change Intentions (Time 3)

Do you intend to mentor other graduate students in the future?

- Yes
 No
 Unsure

What led you to make this decision? _____

Do you intend to continue working with this student throughout the student's program?

- Yes
 No
 Unsure

What led you to make this decision? _____

If answered yes or unsure to either of the above questions:

What will you do differently with this protégé or future protégés based on your experience with your student (e.g., spend more time talking with my student, be less willing to trust my student, provide more specific feedback)? _____

Quantitative Mentor Behavioral Change Intentions (Time 3)

How likely is it that you will seek fewer mentoring opportunities in the future as a result of mentoring this student?

1 = very unlikely; 2 = unlikely; 3 = unsure; 4 = likely; 5 = very likely

To what extent will you be more careful about who you select as a protégé in the future as a result of mentoring this student?

1 = To a very little extent; 5 = To a very great extent

1. I intend to improve my skill as a mentor.^a
2. I will change how I manage the relationship with my protégé.^b
3. After my experience with my protégé, it is important to alter the relationship I have with my protégés.^b
4. I will change the kind of mentor I am.^b
5. I will work harder to be a better mentor.^b

1 = strongly disagree; 5 = strongly agree

^aItem adapted from Maurer and Palmer (1999).

^bItems adapted from Tanner (2014).

Mentor Withdrawal Intentions (Time 3)

1. I often think of leaving this mentoring relationship.
2. It is very possible that I will look for a new protégé next year.
3. If I may choose again, I will choose to mentor this same protégé. (reverse-scored)

1 = strongly disagree; 5 = strongly agree

Items adapted from the Camman, Fichman, Jenkins, and Klesh (1979) turnover intentions measure.

APPENDIX D

Proposed Measures – Protégé

Pre-Questions (Time 1)

Description for Survey: Mentors are persons usually considered more experienced, who support, train, or “teach the ropes to” others as they pursue their career goals. Those that they mentor are usually referred to as “protégés.” Example mentoring behaviors include introducing protégés to others within the university, listening to the protégé’s career or personal problems or challenges, sharing career or personal stories with the protégé, and/or providing career guidance to the protégé.

[Insert name] indicated that you are currently his/her protégé. Is this correct?

Yes

No

Unsure

Protégé Perceptions of Mentor Positive Role Behavior (Times 1, 2, & 3)

Description: Think about the mentor indicated in your survey invitation. All answers will be confidential. To what extent did your mentor provide the following to you in the past three months:

Career

1. Given or recommended you for challenging research projects or teaching activities that present opportunities to learn new skills? ^a
2. Given or recommended you for research projects or teaching that required personal contact with other professors in your department? ^a
3. Given or recommended you for research projects or other activities that increased your contact with higher level academics? ^a
4. Given or recommended you for research projects or other activities that helped you meet new colleagues? ^a
5. Helped you finish assignments/tasks or meet deadlines that otherwise would have been difficult to complete? ^a
6. Protected you from working with other professors before you knew about their likes/dislikes, opinions on controversial topics, and the nature of the political environment?
7. Gone out of his/her way to promote your career interests?
8. Kept you informed about what is going on at higher levels in the university or how external conditions are influencing the university?

Psychosocial

9. Conveyed feelings of respect for you as an individual? ^a
10. Conveyed empathy for the concerns and feelings you have discussed with him/her? ^a

11. Encouraged you to talk openly about anxiety and fears that detract from your work? ^a
12. Shared personal experiences as an alternative perspective to your problems?
13. Discussed your questions or concerns regarding feelings of competence, commitment to advancement, relationships with other graduate students or professors, or work/family conflicts? ^a
14. Shared history of his/her career with you?
15. Encouraged you to prepare for the job market?
16. Encouraged you to try new ways of behaving as an academic?
17. Served as a role model?
18. Displayed attitudes and values similar to your own? ^a

1 = not at all; 2 = to a small extent; 3 = to some extent; 4 = to a large extent; 5 = to a very large extent

Items were adapted from Dreher and Ash (1990) to refer to an academic setting.

^a Items retained for hypothesis testing.

Protégé Perceptions of Mentor Negative Role Behavior (Time 1)

Description: Think about the mentor indicated in your survey invitation. Please indicate the extent to which you agree with the following statements. All answers will be confidential.

1. My mentor is reluctant to talk about things that are important to me. (distancing behavior)
2. My mentor seems to have “more important things to do” than to meet with me. (distancing behavior)
3. When I interact with my mentor he/she does not give me his/her full attention. (distancing behavior)
4. My mentor does not include me in important meetings. (distancing behavior)
5. My mentor keeps me “out of the loop” on important issues. (distancing behavior)
6. My mentor is more concerned about his/her own career than helping me develop in mine. (distancing behavior)
7. My mentor is preoccupied with his/her own advancement. (distancing behavior)
8. My mentor “pulls rank” on me. (manipulative behavior)
9. I am intimidated by my mentor. (manipulative behavior)
10. My mentor is unwilling to delegate responsibility to protégés. (manipulative behavior)
11. My mentor asks me to do his/her “busy work.” (manipulative behavior)
12. My mentor has intentionally hindered my professional development. (manipulative behavior)
13. My mentor has lied to me. (manipulative behavior)
14. My mentor has undermined my performance on tasks or assignments. (manipulative behavior)

15. My mentor has deliberately misled me. (manipulative behavior)
16. When I am successful, my mentor takes more credit than he/she deserves. (manipulative behavior)
17. My mentor takes credit for my hard work. (manipulative behavior)
18. My mentor has taken credit for work that I have done. (manipulative behavior)
19. My mentor lacks expertise in areas that are important for the type of work he/she does. (lack of mentor expertise)
20. My mentor does not communicate well. (lack of mentor expertise)
21. My mentor has personal problems (e.g., drinking problem, marital problems). (general dysfunctionality)
22. My mentor tends to bring his/her personal problems to work. (general dysfunctionality)
23. My mentor approaches tasks with a negative attitude. (general dysfunctionality)
24. My mentor complains a lot about the university. (general dysfunctionality)
25. My mentor has a pessimistic attitude. (general dysfunctionality)
26. My mentor allows nonbusiness related issues to interfere with his/her work. (general dysfunctionality)
27. My mentor lacks the interpersonal skills necessary to display sensitivity when appropriate. (lack of mentor expertise)

1 = not at all; 2 = to a small extent; 3 = to some extent; 4 = to a large extent; 5 = to a very large extent

Items are from Eby, Butts, Lockwood, and Simon (2004). Items from the mismatch within the dyad dimension were not included because they referred to the mentor-protégé relationship and not mentor behavior. Two items from the distancing behavior, five items from the lack of mentor expertise, and two items from the general dysfunctionality dimensions were removed because they do not measure behavior.

Control Variables and Demographics – Protégé Survey (Time 1)

Mismatch Within the Dyad

Description: Think about the mentor indicated in your survey invitation. Please indicate the extent to which you agree with the following statements. All answers will be confidential.

1. The personal values of my mentor are different from my own.
2. My mentor and I have different life priorities.
3. My mentor and I have different work habits.
4. My work strategies are different from my mentor's.
5. My mentor and I have a different understanding of effective work performance.
6. My mentor and I have different personal dispositions.
7. Comparing myself to my mentor, I would say our temperaments are different.
8. My mentor and I have similar personalities.
9. My mentor and I are different from one another.

1 = strongly disagree; 5 = strongly agree

Items are from Eby, Butts, Lockwood, and Simon (2004).

Mentoring Experience

How many professors have you had as mentors (including the mentor reported on in these surveys)? _____

How many protégés have you mentored? _____

How long have you been a protégé (either formally or informally), including other mentors besides the one reported in these surveys? If greater than one year, type in the number of years and months. If less than one year, just type in the number of months.

____ Years

____ Months

How many mentors have you had outside of academia?

Demographics

Are you a full-time student?

____ Yes, I am a full-time student

____ No, I am a part-time

How long have you been in your PhD program? If greater than one year, type in the number of years and months. If less than one year., just type in the number of months.

____ Months

____ Years

How many hours on average do you work per week? _____

Which stage of the PhD program are you currently in?

____ In the process of completing coursework requirements

____ Completed coursework requirements and have not yet started the dissertation

____ Completed all (or most) courses; beginning to work on the dissertation

____ Defended the dissertation proposal, but anticipate taking at least one more year to graduate

____ Defended the dissertation proposal and expect to graduate within the next year

Gender: Male____ Female____

Current Age: _____ years

Which category most closely describes your race?

White
Black
Hispanic
Asian
Other

How many organizations outside of academia have you worked for in a full-time position (including self-employment)? _____

Thank you for your response! I will follow up in approximately one month with a second survey.

Protégé Perceptions of Relationship Quality (Times 2 & 3)

Think about the mentoring relationship you described in the first set of questions. This mentor should be the same person you answered the previous questions in reference to above (and the mentor who sent you this survey invitation). When thinking about this particular mentoring relationship, please indicate your agreement with the following statements.

1. My mentor and I enjoy a high-quality relationship.
2. I am satisfied with our mentoring relationship.
3. Our mentoring relationship is effective.
4. My mentor and I have a good relationship.
5. My mentor and I trust each other.
6. I like my mentor very much.
7. I get along well with this mentor.
8. It is a pleasure being mentored by this professor.

1 = strongly disagree; 5 = strongly agree

Leader-Member Exchange (Time 2)

1. I respect my mentor's knowledge of and competence on the job.
2. My mentor would defend me to others in the university if I made an honest mistake.
3. My mentor is the kind of person one would like to have as a friend.
4. I do not mind working my hardest for my mentor.
5. My mentor would come to my defense if I were "attacked" by others.
6. I like my mentor very much as a person.
7. I do work for my mentor that goes beyond what is expected of me in my job.
8. I admire my mentor's professional skills.
9. My mentor would defend my work actions, even without complete knowledge of the issue in question.
10. My mentor is a lot of fun to work with.

11. I am willing to apply extra efforts, beyond those normally required, to meet my mentor's work goals.
12. I am impressed with my mentor's knowledge of his/her job.

1 = strongly disagree; 5 = strongly agree

Items pulled from Liden and Maslyn (1998). The scale assesses four dimensions. Items 1, 8, and 12 refer to professional respect. Items 2, 5, and 9 refer to loyalty. Items 3, 6, and 10 refer to affect, and items 4, 7, and 11 refer to contribution.

Department Structure (Time 2)

Were you able to select this professor as a faculty mentor?

____ Yes

____ No

How many faculty mentors do you currently work with?

Mentor Learning/Improvement (Time 3)

Thinking about your experience with your mentor over the past four months, indicate your agreement with the following statements.

1. My mentor has learned how to communicate effectively with others in the workplace.
2. My mentor has improved his/her listening skills in the workplace.
3. My mentor appears to have developed new ideas about how to perform his/her job in the workplace.
4. My mentor has become more sensitive to others' feelings and attitudes in the workplace.
5. My mentor has gained new skills in the workplace.
6. My mentor appears to have expanded the way s/he think about things in the workplace.

1 = strongly disagree; 5 = strongly agree

Items are pulled from the personal skill development dimension of Lankau and Scandura's (2002) personal learning measure and adapted for other-reports.

APPENDIX E

Qualitative Coding Instructions and Qualitative Codes

Phase I – Descriptive Codes (i.e., first-order codes)

Worksheet: “Phase I”

1. Read through the “COMBINED LEARNING” responses (Column H) and enter as many applicable descriptive codes as needed in Columns D-G for the appropriate category (i.e., mentoring-specific, occupational-specific, relational, or org-specific learning).
2. Read through the “ORG LEARNING” responses (Column J) and enter as many applicable descriptive codes as needed in Column I, “ORG-SPECIFIC LEARNING (OSL) CODES”.
3. Read through the “BEH CHANGE INTENTIONS” responses (Column L) and enter as many applicable descriptive codes as needed in Column K, “DESCRIPTIVE CODE – BEH CHANGE”.

Code	Subtheme	Description
TSL: <u>Mentoring-Specific Learning</u> – Mentors learned mentoring-specific skills such as giving feedback, adapting for different protégés, and managing the mentoring relationship.		
FB	Feedback	Mentors described trying to find a balance between being supportive and providing negative feedback Spoke of getting better or becoming aware that they had trouble giving difficult feedback
AD	Adaptability	Different approaches for different students Working with students with different personalities, abilities, motivation, work styles Identifying and working with students' strengths and weaknesses Differing structure for different stages of the relationship
O	Organizational skills	Time management Writing down everything that discussed for own organizational purposes Available for students
M	Managerial skills	Delegation Autonomy → balancing learning on own versus giving advice/doing work Identifying great students to work with (based on their qualities) Managing expectations, clear timelines, goals Balancing between advisor and friend Progress/accountability/checking in with protégé Writing down everything discussed for accountability purposes
TOP	Mentoring different topics	Learning to mentor different topics or learning to mentor in general; e.g. writing, department-specific, publishing process; how to be an advisor
CSL: <u>Occupational-Specific Learning</u> – Mentors learned skills that would benefit them in their careers as academics (e.g., teaching skills, new theories, methods, research techniques).		
M	Methods	Learning new methods
R	Research	New literatures, theories and interests Research approaches, how others do research (either faculty members within department/university or outside of the university)
TCH	Teaching	New teaching methods and interests (e.g., how to write)

RL: Relational Learning – Mentors learned relational skills such as communication, perspective-taking, and self-awareness		
COM	Communication	Explicitly mentioning communication, verbally talking or listening (but could also be written communication) With students/other faculty Listening and asking questions
PER	Perspective taking	Awareness of other life circumstances Graduate student anxiety “silent pain” Minority students’ experiences Empathy How work-family conflict affects students Respect Patience Understanding student problems
SEL	Self-awareness	Not the idea person once thought Identifying own biases and weaknesses Recognizing that enjoy mentoring, mentoring is rewarding Positive self-awareness
OSL: Organization-Specific Learning – Mentors learned about the department or university.		
OSL	General org-specific learning	The responses here are a little thin, so you may need to use just a general org learning code This can include generally positive comments about the organization/department
POL	Policies	Structure of doc program, requirements, policies
SUP	Supportive	Program/organization is supportive of doc students Supports students of color, easy to work across disciplines Flexible organization
NS	Not supportive	Lack of support for students Inflexible Red tape, obstacles
W	Misunderstood question	Note – there are a couple respondents who misunderstood the question and thought I meant organizational skills. Reword for future research.

BC: Behavioral Change Intentions – Mentors intend to change for future relationships based on current relationship		
EXP	Managing expectations	Develop clear guidelines/semester planning Spend time establishing guidelines for future Accountability; monitor progress Delegate more
FB	Balancing tough love and cheerleading	Providing difficult feedback Providing direct feedback Providing positive feedback/support
CONT	Contact	Increasing contact with students Decreasing contact (provides no reason)
WKLFE	Work-Life	Become more cognizant of work-life balance and effects of life on work
AD	Adaptability	Recognizing that each protégé is different Different approaches for different phases of relationship Changing approach for different protégés Identifying and working with strengths and weaknesses
IMP	General self-improvement	Less emotionally reactive Share more personal and life experiences
PAT	Patience	Be patient Empathy Advocate for student (maybe change this whole subtheme to empathy)
L	Listening and understanding	Listen and ask questions Understanding needs/work style of protégé Trusting
CARE	Selection of protégé	Be more careful who work with Leave relationship open to ending Less time, so less contact Less trusting
TOP	Teaching specific topic	Teaching speaking skills

Notes: If they did not answer, you can leave an “X” in the cell.

Phase II – Quantification

Worksheet: “Phase II”

1. Read the “COMBINED LEARNING” responses in Column G.
2. On a scale from 1 = not at all; 2 = to a small extent; 3 = to a moderate extent; 4 = to a great extent, rate the amount of each type of learning. Note: I have already filled in the columns where we agreed that they did not learn anything related to the topic. The cells highlighted in green are the only cells requiring responses.
 - a. This mentor gained mentoring-related skills (Column D).
 - b. This mentor gained occupational-specific skills (Column E).
 - c. This mentor gained relational skills (Column F).

Guide:

1 = not at all → Respondent does not mention at all

2 = to a small extent → Says not much from this relationship, but does mention something related to the type of learning

3 = to a great extent → Mentions something related to topic

3. Read the “BEH CHANGE INTENTIONS” responses in Column G.
4. On a scale from 1 = not at all; 2 = to a small extent; 3 = to a moderate extent; 4 = to a great extent, rate the amount of behavioral change intent. Note: Similar to the learning cells, I already inputted a 1 where we both agreed that participants did not mention changing. You only need to input values for the cells marked in green.
 - a. This mentor plans to change their behavior in future mentoring relationships.

Guide:

1 = not at all → Respondent does not mention at all or says does not intend to change

2 = to a small extent → Says not much from this relationship, but does mention changing in general

3 = to a great extent → Mentions some or a lot of change

Notes: If the participant did not respond at all, I put an X in the cell where responses would have been.