

DISSERTATION

FOSTERING EMPLOYEE ENGAGEMENT THROUGH SUPERVISORY MENTORING

Submitted by

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ABSTRACT

FOSTERING EMPLOYEE ENGAGEMENT THROUGH SUPERVISORY MENTORING

Employee engagement is an increasingly salient topic in organizations given the reported financial, attitudinal, and behavioral gains of having an engaged workforce, and as such, considered a means for achieving effective performance. Supervisors are typically charged with motivating their employees to accomplish work effectively, primarily because of their proximity and often close relationship they have with their subordinates. Consequently, organizations have begun encouraging and expecting supervisors to foster employee engagement. However, little is known about how employees become engaged from observing, working with, and learning from their supervisors. This study contributes to the development of a new theory of how employees, as protégés, become engaged through mentoring received from their supervisors. Using self-report data from 173 employees, I explored the relationships between protégé engagement and perceived mentoring functions (role modeling, career-development, and psychosocial support) in the context of a supervisor-subordinate relationship. Results from this study highlight the theoretical value of mentoring functions, which are understudied aspects in the supervisor-subordinate relationship and are critical for leadership and future leader-development efforts. Thus, this study contributes not only to the theoretical advancement of work engagement, but also to the practical application of efforts to foster employee engagement and to an empirical understanding of how engagement is fostered through satisfaction of intrinsic needs and social learning mechanisms.

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DEDICATION

This dissertation is dedicated to my brother, Michael Contino Nowacki. I have felt your loss so deeply and miss you every day. Thank you for teaching me the value of living a meaningful life, to find humor in the simplest things, and gratitude for happiness.

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INTRODUCTION

In a recent meta-analysis, the Gallup Institute identified numerous positive outcomes associated with having a highly engaged workforce, such as high customer satisfaction, profitability, productivity, earnings per share, and low turnover (Gallup, 2012). Consistent positive findings indicate the value of employee engagement in the work environment, and, as such, coincide with a strong interest in engagement amongst practitioners and organizational leaders (Society for Human Resource Management, 2012). Logically, “what are the antecedents for engagement and how it can be fostered in the work environment?” is one of the foremost questions that researchers, practitioners, and organizational leaders are working to understand. One of the specific antecedents of interest is understanding how supervisors, who occupy a critical role in organizations and who are most proximal to employees, foster engagement among their subordinates. Consequently, organizations have begun investing in supervisory development efforts as a way of promoting employee engagement, assuming that changes in supervisory behavior will result in greater engagement among subordinates (Gallup, 2012). Despite growing investment in supervisor development, limited research exists on how employees become engaged by observing, working with, and learning from their supervisors. Hence, the focus of this study is on the role of supervisors as a critical antecedent to employee engagement.

Supervisors may be critical to the development of their subordinates’ engagement, in part due to their psychological and, in co-located work settings, physical proximity to their direct reports. Supervisors clarify roles, give work assignments, conduct performance reviews, and can shift the nature or specific characteristics of their direct reports’ jobs. Because of their proximity to employees and the nature of the supervisor-subordinate relationship, supervisors are often

charged with motivating their employees to accomplish work effectively (Bass, 1985). Indeed, recent research suggests supervisory behaviors can impact employee motivation along with numerous other subjective work outcomes, including employee engagement (Aryee, Walumbwa, Zhou, & Hartnell, 2012; Hansen, Byrne, & Kiersch, 2014). Hence, the scarcity of research in how supervisors foster engagement is particularly surprising given that supervisors play such an essential role in organizations, serving as the primary contact for employees (Allen, Jimmieson, Bordia, & Irmer, 2007), and therefore, may be essential in promoting employee engagement.

What little research has been conducted on the supervisor-subordinate relationship and its potential effects on employee engagement has been primarily studied from a social support perspective. For example, employee engagement scholars have shown that leader-member exchange (LMX), a social exchange (Blau, 1964) relationship between employee and supervisor (Graen, 1976), is positively correlated with employee engagement (Agarwal, Datta, Blake-Beard, & Bhargava, 2012; de Villiers & Stander, 2011) and explained by the social component within LMX. Leadership characterized by psychosocial support has also positively correlated with employee engagement (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; May, Gilson, & Harter, 2004). The trend in this supervisor-subordinate and engagement research has been to suggest that supervisors who demonstrate caring and social support ultimately activate engagement in their subordinates. The practical corollary to these findings is that supervisors can be taught to provide social support and demonstrate caring for their subordinates (Bakker et al., 2007). Although these studies demonstrate positive social support for employees, the findings lack depth in investigating the complexities of the supervisor-subordinate relationship, failing to explain why some supervisors who provide social support fail to engage their employees. The research thus far has provided only one perspective into how employees become engaged

through their interactions with their supervisor, yet the supervisor-subordinate relationship comprises much more than just the potential for social support.

Our understanding of mentoring to date provides an alternative and more comprehensive framework for which to evaluate how supervisors can foster engagement among their subordinates. In particular, functions that mentors serve for their protégés are three-fold and include: (1) providing psychosocial support, (2) facilitating career development or vocational support (i.e., providing protégés with career growth opportunities), and (3) being a role model (Kram, 1983; Scandura, 1992). In line with the job demands-resource theory (Bakker & Demerouti, 2007), it has been suggested that supervisors providing psychosocial support help reduce employee physical, cognitive, and emotional demands, while also providing psychosocial resources that help employees stay engaged (Bakker et al., 2007). Paradoxically, existing mentoring research has shown that activities less social in nature, such as career-development functions, are more closely related to protégé outcomes, like engagement, than psychosocial support. Specifically, the career-development and role modeling functions, as compared to the psychosocial support function, are more closely related to job satisfaction, pay, promotions, goal setting, job performance ratings, motivation, and job involvement (Allen et al., 2004; Dickson, Kirkpatrick-Husk, Kendall, Longabaugh, Patel, & Scielzo, 2013). Thus, encouraging supervisors to be supportive and examining the extent to which a supervisor is supportive as a means for understanding how supervisors can engage their subordinates is grossly limited. A more complete approach to understanding how supervisors promote employee engagement may be to encourage supervisors to behave as mentors, which includes the two other functions, providing vocational support and acting as a role model. Not until recently has research examined these alternative functions' effects on engagement in a supervisory mentoring context.

The purpose of this study, therefore, is to advance the literature by introducing a new theoretical model that explains a critical antecedent, supervisory mentoring, to employee engagement. Specifically, drawing from social cognitive theory (Bandura, 1977, 1986) and self-determination theory (Deci, 1975), I propose a theoretical model that clarifies and explains the role of psychosocial support, career development, and role modeling in fostering subordinate (in a mentoring context, protégé) engagement. My model, shown in Figure 1, illustrates how mentors, through mentoring function activities, influence protégés' capacity to become engaged.

Employee Engagement

Engagement can be defined as individuals giving all of themselves to their work (Kahn, 1990). Specifically, Kahn proposed that engagement is “the harnessing of organization members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances” (p.694). Kahn’s definition of engagement draws on several early theories of motivation (e.g., Existence, Relatedness, and Growth Theory, Alderfer, 1972; job characteristics theory, Hackman & Oldham, 1976), but more relevant to the proposed study is his reliance on role theory (Goffman, 1961). Role theory suggests that people have fleeting encounters of being either detached or attached to their roles, where detachment indicates a lack of enjoyment and attachment to roles indicates enjoyment and embracing one’s role. Kahn drew from Goffman’s perspective to define the investment of oneself into the work role as a dynamic “push and pull” (p. 694) that individuals experience as they move between engagement and disengagement.

Understanding the pulls of engagement is a popular subject for organizations who wish to maximize employee performance and well-being at work (Robinson, Perryman, & Hayday, 2004). Employee engagement’s growing popularity is not unfounded; there are numerous

positive organizational and individual benefits reportedly associated with employee engagement and recent research suggests there is a large cost associated with employees who are unengaged. For example, the Gallup Organization (2012) estimated that nearly 71% of the working population is unengaged and that the prevalence of unengaged workers comes at quite a cost for organizations. Specifically, they estimated that the annual cost of unengaged employees in the United States is between \$292 and \$355 billion. Associated with high profit margins, productivity, customer satisfaction, and safety (Harter, Schmidt, & Hayes, 2002), employee engagement has also been associated with essential work attitudes and performance behaviors, such as organizational commitment (Bakker & Schaufeli, 2008; Saks, 2006), organizational citizenship behaviors (Saks, 2006), low turnover intentions (Saks, 2006; Schaufeli & Bakker, 2004), and job performance (Bakker & Bal, 2010).

The positive outcomes of employee engagement extend to individual benefits as well. For example, employee engagement has been positively associated with self-reported health and working ability (Airila, Hakanen, Punakallio, Lusa, & Luukkonen, 2012; Rothman, 2008) in addition to job satisfaction (Saks, 2006). These relationships are expected because engagement itself is often described as a positive and fulfilling state of mind, assumed to be enjoyable for employees (Schaufeli, Salanova, González-Romá, & Bakker, 2002).. Given the purported benefits of engagement, identifying and understanding its antecedents is on the agenda of scholars and practitioners alike.

One antecedent to employee engagement that has not been fully explored is mentoring. The use of mentoring as a means for improving employee performance and learning, as an alternative to traditional training, and as a mechanism for retaining talent has developed rapidly over the last few decades (Dickson et al., 2013). Despite its use as a means for improving

performance and employee learning, few researchers have investigated the role of mentoring in fostering engagement.

Understanding Mentoring and the Role of the Supervisor

Mentoring is becoming increasingly important and relevant for improving protégés' work outcomes, such as career growth and satisfaction, promotion, pay, organizational commitment, and motivation (Allen et al., 2004; Dickson et al., 2013). Though mentoring programs are popular, formal ones (in which mentors are assigned protégés to mentor) are still relatively rare, in part due to the difficulties in administering and monitoring them appropriately (Allen, Finkelstein, & Poteet, 2009). Traditional mentoring programs require a great investment of time, money, and program coordination. For organizations that lack adequate time, money, or personnel, a non-traditional approach like supervisory mentoring is needed. Additionally, some organizational cultures may be aligned with an informal program approach as opposed to a highly structured program (Zachary, 2011), rendering assigned mentor-protégé pairing a counter-culture move and consequently, unsustainable. Although some (e.g., Kram, 1983) have voiced concerns about the potential negative influence that other personnel activities, such as making promotion decisions and conducting performance reviews, can have on supervisory mentoring, informal supervisory mentoring appears to have a greater effect on protégés' career outcomes, such as salary, promotion, satisfaction, than traditional, formal mentoring programs (Chao, Walz, & Gardner, 1992). Consequently, in an ever shifting and dynamic workplace, supervisors often take the role of an informal mentor (Ragins & Kram, 2007).

Given the increased attention and reliance on supervisors to serve as a mentor, it is crucial to understand what supervisory mentors can do to get their protégés engaged. The functions of mentoring: career development, psychosocial support, and role modeling, serve as a

guiding framework for the various behaviors supervisory mentors can demonstrate that engender positive results for their direct reports and protégés (Allen et al., 2004; Dickson et al., 2013). By identifying the relationship of mentoring functions with employee engagement, the current study will be practically relevant for organizations wishing to develop and train supervisors on key behaviors associated with employee engagement.

Mentoring in General

Increasingly, organizations see the overall value of having mentoring programs, as do others. In fact, the presence of mentoring programs is now a criterion for being one of Fortune magazine's "Best Companies to Work For" (Branch, 1999). This value is justified; research on mentoring over the last two decades has revealed that mentoring relationships are associated with an array of positive outcomes for the protégé, such as increased pay, promotions, job satisfaction, and career satisfaction for the protégé (Allen et al., 2004).

Although scholarly interest in mentoring relationships dates back to Levinson and colleagues' (1978) work studying human development, mentoring is most often defined using Kram's (1985) conceptualization. Kram conceptualized the mentoring relationship as a developmental relationship between an older, experienced mentor, and a younger, junior protégé. Recently, however, the terms older and younger have been dropped from definitions of mentoring, as mentoring relationships and their quality are not dependent on age (Eby, Rhodes, & Allen, 2007).

In Kram's (1985) seminal work on mentoring, she suggested that to be effective and truly enhance the protégé's growth and advancement, mentors must serve two primary functions: (1) career-development and (2) psychosocial support (see Table 1). Career-development refers to the mentor's role in helping the protégé advance in his or her career, and psychosocial support refers

to the mentor providing support and guidance to the protégé in the face of work-related challenges. Kram proposed that to assess mentoring quality one must examine the extent to which mentors behave in a way that is consistent with career-development and psychosocial functions.

Table 1

Main Functions	Subfunctions
Career-Development	<ol style="list-style-type: none"> 1. Sponsorship 2. Exposure and visibility 3. Coaching 4. Protection 5. Challenging Assignments
Psychosocial	<ol style="list-style-type: none"> 1. Role modeling 2. Acceptance and confirmation 3. Counseling 4. Friendship

Kram's (1985) Mentoring Functions and Subfunctions

According to Kram, the career development function includes five subfunctions: (1) *sponsorship*, (2) *exposure and visibility*, (3) *coaching*, (4) *protection*, and (5) *challenging assignments*. Kram proposed that these functions are possible because the mentor typically has a more senior position, more extensive experience, and greater organizational influence as compared to the protégé. *Sponsorship* refers to activities the mentor does to nominate the protégé for desired lateral opportunities and promotions. *Exposure and visibility* refers to a mentor increasing a protégé's contact with key people in the organization so the protégé can demonstrate his or her competence and performance to others who may serve as useful contacts in the protégé's career development. *Coaching* is characterized by helping the protégé learn and increase his or her knowledge regarding how to navigate the corporate world. Examples of coaching might include helping protégés with an assignment, providing advice on a challenging

project, or helping protégés develop new skills. *Protection* occurs when mentors shield protégés from individuals and activities in the organization, which may have negative effects on the protégé's career development. The last subfunction, *challenging assignments*, is related to the immediate work that the protégé must accomplish in his or her work role. In this subfunction, the mentor gives the protégé assignments that will increase the protégé's knowledge or skills, and ultimately help the protégé to experience a sense of accomplishment and growth.

Kram's second broad mentoring function, the psychosocial function, includes four subfunctions: (1) *role modeling*, (2) *acceptance and confirmation*, (3) *counseling*, and (4) *friendship*. Kram notes that whereas the career development function is dependent on the mentor's experience, seniority, and influence in the organization, the psychosocial function is more closely related to the relational closeness between the mentor and the protégé. *Role modeling* is characterized by the protégé seeing the mentor as someone to respect, admire, and emulate. Implied here is that the mentor must present a desirable example that inspires the protégé. *Acceptance and confirmation* is characterized by encouragement on the part of the mentor and mutual respect between the mentor and the protégé. *Counseling* includes assisting the protégé with issues that arise at work, such as work-related concerns. Lastly, *friendship* occurs when both the mentor and the protégé feel comfortable with each other and could call each other friends.

Role modeling. In Kram's (1985) study, the most frequently reported psychosocial function provided by mentors was role modeling. Although Kram did not initially acknowledge role modeling as a third and critical function, she noted its importance as a subfunction of mentoring, as have others (Gibson, 2004). In support, Scandura (1992) showed that role modeling served an important and unique role in determining important mentoring outcomes.

The concept of role modeling and research that suggests role modeling has an impact on career behaviors, attitudes, and emotions pre-dates Kram's (1985) work on mentoring. For example, Basow and Howe (1979) suggested that role models impact career choice and critical career decisions. Likewise, research has shown that having a 'role model' is critical to personal and professional development (Erikson, 1985; Hall, 1976; Krumboltz, 1996), and is a strong predictor of positive outcomes for the protégé (Haggard, Dougherty, Turban, & Wilbanks, 2011).

Though the concept of role modeling is relatively well-understood by many, probably due to its use as a term in popular media and culture (Gibson, 2004), there has been less construct clarity in the mentoring and career literatures on what a role model is (Gibson, 2004; Jung, 1986;). According to Gibson, role modeling is a "cognitive construction based on the attributes of people in social roles an individual perceives to be similar to him or herself to some extent and desires to increase perceived similarity by emulating those attributes" (p. 136). This definition creates clarity in the literature, and is used in the current study.

Role modeling, therefore, is a cognitive construction of the protégé and is based on perceptions of similarities along with desirable attributes. Unlike psychosocial support and career development functions as suggested by Kram (1985), role modeling is less defined by the behaviors the mentor demonstrates than it is by the protégé's cognitive processes (Gibson, 2004). However, due to research and support that role modeling is a critical function that determines important work outcomes, in the current study, I treat role modeling as a third and distinct function that should be examined more deeply in the context of employee engagement.

The underlying explanation for how role modeling works is largely based on social learning theories, which suggest that one learns by emulating behaviors observed in others; behaviors that are rewarded and acceptable in the immediate social context (Bandura, 1977).

Additionally, existing theoretical understanding of role modeling suggests that people try to shape their behaviors after those in social roles perceived to be important (e.g., a more senior and influential leader; Katz & Kahn, 1978). Recent research indicates that role modeling can have a strong motivating effect on protégés when setting goals for self-improvement, in part because mentors who are perceived as role models serve as social referents for protégés (Gibson, 2004).

Supervisory Mentoring

So *who* is a mentor? This question has long been a subject of debate in the mentoring literature. Directly tied to this debate is the often made distinction between formal and informal mentoring. In the context of organizations, formal mentoring typically refers to a relationship determined within an organizational intervention where protégés are assigned to a mentor. Informal mentoring refers to a mentoring relationship that evolves on its own, where the more experienced individual voluntarily takes on the role of mentor to a less experienced individual. The biggest distinction between formal and informal mentoring is *how* the mentorships are initiated (i.e., whether or not the mentorships were assigned or evolved naturally; Chao et al., 1992). Traditionally, formal mentors are more than one level above the individual in the organizational hierarchy and are more senior (Kram, 1983). These distinguishing characteristics of formal mentoring have set the precedence for how individuals should receive mentoring in an organization (Terry & Beehr, 2003). However, supervisory mentoring provides a more practical, and potentially more impactful relationship for the protégé.

Because formal mentoring programs frequently require careful administration and monitoring from a mentoring expert or administrator along with a significant investment of time and money (Allen et al., 2009; Raabe & Beehr, 2003), most individuals and organizations rely on informal mentoring relationships (Chao et al., 1992). When formal mentoring programs are

absent, supervisors may serve as a viable alternative for traditional mentoring (Allen & Finkelstein, 2003; Byrne, Dik, & Chiaburu, 2008; Raabe & Beehr, 2003). Research suggests that supervisors may be especially well suited to mentor protégés for two key reasons that are discussed in more detail below: (1) supervisory mentors are intra-organizational mentors and (2) supervisory mentors are more likely to provide career development functions than are traditional non-supervisory mentors.

Supervisors may be helpful mentors for their direct reports because this relationship is inter-organizational, meaning that the mentoring relationship exists within the same organizational context. The first reason inter-organizational mentoring is helpful for the direct reports is that mentors inside of the organization (such as supervisors) are likely to have power and influence within the organization to provide the protégé with career advancing opportunities. Second, protégés who have internal mentors probably spend more time and have more access inside their organization, as well as develop more intimate and trusting relationships by way of frequency of exchange and accessibility, as compared to protégés who have external mentors. Third, protégés with mentors inside their organization should have more opportunities to directly observe their mentors in action, allowing for more role modeling opportunities in contrast to protégés with external mentors. Recent research supports these claims; protégés with inter-organizational mentors report receiving greater career development, psychosocial support, and role modeling compared to protégés with mentors outside of their organization (Baugh & Fagenson-Eland, 2005).

Supervisory mentors are also well suited to be mentors because they are responsible for assigning tasks to their protégés. Therefore, supervisory mentors have the opportunities to give protégés challenging assignments, a key career development subfunction. Additionally,

supervisory mentors can directly observe protégés trying new skills, giving the mentors opportunities to provide relevant feedback (i.e., coaching, another career development subfunction). Recent research supports these claims as well. For example, Haggard et al. (2011) asserted that studies in mentoring research that allow for or specify direct supervisory mentoring tend to find improved receipt of career development subfunctions, such as coaching and providing challenging assignments.

How is supervisory mentoring different from other leadership theories? Since supervisory mentoring relies on the relationship between a supervisor (the mentor) and his or her direct report (the protégé), one might contend that this relationship is conceptually similar to existing leadership perspectives such as transformational leadership theory (Bass, 1985) or leader-member exchange (LMX; Graen, 1976). Given these similarities, one might further argue that the relationship between supervisory mentoring and engagement has already been studied (e.g., Aryee et al., 2012; Hansen et al., 2014). Though there is conceptual overlap between supervisory mentoring and key leadership theories, there are substantial differences worth noting and that render the study of supervisory mentoring and engagement a novel contribution.

First, according to transformational leadership theory, leaders are effective when they can align their direct reports' goals with those of the organization. Transformational leadership is composed of four dimensions: (1) idealized influence, (2) inspiring, (3) providing individualized consideration to direct reports, and (4) intellectually stimulating followers (Bass, 1985). Although supervisory mentoring and transformational leadership may be related in that leaders who are considered "transformational" may participate in some career development mentoring when demonstrating individualized consideration, there is a distinct difference between the concepts. The main difference between transformational leadership and supervisory mentoring is

that transformational leadership is performance-oriented where the primary outcome is a higher performing direct report, whereas supervisory mentoring is development-oriented where the primary outcome is developing the skills, knowledge, and career trajectory of direct reports (Castro, Scandura & Williams, 2002).

Second, another leadership theory that may have conceptual similarities to supervisory mentoring is LMX (Graen, 1976). LMX suggests that effective leadership processes are dependent on strong relations between the leader and his or her direct reports (though LMX relationships are not limited to those between leaders and subordinates). According to this theory, LMX relationships between employees and their leaders are characterized by trust, loyalty, and respect. However, similar to transformational leadership, LMX lacks an explicit acknowledgement of the role of the leader in the long-term career development of his or her direct report. Likewise, both theories are focused on identifying characteristics of leadership likely to result in the leader being effective and achieving his or her objectives, instead of focusing on more altruistic attempts to help the protégé develop (Byrne et al., 2008; Thomas & Lankau, 2009).

Thus, although transformational leadership and LMX may share some similarities with supervisory mentoring career-development and psychosocial functions, too many of the mentoring subfunctions are untouched, leaving many gaps for fully explaining how supervisors as mentors promote engagement in their direct reports.

Fostering Employee Engagement through Supervisory Mentoring

Two theories, namely self-determination theory (Deci, 1975) and social cognitive theory (Bandura, 1977; 1986) are useful in explaining why employees may (or may not) become

engaged in their working roles and help us understand why supervisory mentors can influence their protégés' engagement.

Self-determination theory. Self-determination theory (SDT), actually a set of theories, is primarily focused on motivation and attempts to explain how individuals become motivated to different extents (Deci, 1975). Although SDT emphasizes the importance of intrinsic interest in motivation (Deci, 1975), the theory considers motivation on a continuum from extrinsic motivation to intrinsic motivation (Ryan & Deci, 2000). Extrinsic motivation occurs when individuals are motivated by the prospect of receiving rewards. In contrast, intrinsic motivation occurs when people are motivated by self-interest to behave in ways consistent with their self-image. A critical component of SDT associated with intrinsic motivation is basic needs theory. Basic needs theory states that there are three critical needs individuals must meet to become intrinsically motivated (Gagné & Deci, 2005). These include: (1) autonomy, which refers to acting in a way that is self-governing; (2) relatedness, which refers to interacting with and caring for others in relationships that are characterized by trust and mutual reliance; and (3) competence, which means experiencing mastery and achieving goals for tasks that are identified as challenging (Gagné & Deci, 2005). According to Gagné and Deci, the workplace is an example of a social context where these three needs can be met. When these needs are met, intrinsic motivation to complete work tasks is likely to occur, along with positive work outcomes, such as high satisfaction, well-being, and high performance. Indeed, existing research supports a positive relationship between needs satisfaction and intrinsic motivation (Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008).

There are conceptual similarities between employee engagement and intrinsic motivation, justifying the use of SDT as an explanatory framework for understanding why engagement

occurs (Meyer & Gagné, 2008). Specifically, both intrinsic motivation and employee engagement are motivational states that are influenced by satisfying universal internal desires and needs. Although the current study does not propose that intrinsic motivation and employee engagement are the same (research has shown them to be distinct; Rich, LePine, & Crawford, 2010), they are related, which makes SDT a relevant and useful framework for understanding why supervisory mentors may encourage protégé engagement. For example, employees who are challenged by assignments and opportunities for growth, may experience greater competence need satisfaction, and in turn becoming more engaged.

In sum, within the last decade, employee engagement has received increasing attention from organizations and researchers alike, due to interest in understanding the nature of engagement and how to foster this desirable state at work. Despite limited use as a theory to explain employee engagement, SDT offers insights into how employees can become engaged, especially in the context of relationships with their supervisors. However, SDT alone is not enough to explain how supervisors can promote engagement in their employees because engagement is not just about becoming intrinsically motivated. Therefore, I turn to incorporating social cognitive theory.

Social cognitive theory. Social cognitive theory is primarily a learning theory that explains how individuals learn in the context of social and environmental observation (Bandura, 1986). Though there are clear theoretical applications of social cognitive theory as an explanatory mechanism for how people may become engaged in a social context, few empirical applications exist.

Prior to social cognitive theory, Bandura suggested that traditional learning theories had been unidirectional. Specifically, “human behavior has often been explained in terms of one-

sided determinism. In such modes of unidirectional causation, behavior is depicted as being shaped and controlled either by environmental influences or by internal dispositions” (Bandura, 1986, p. 2). Unlike the unidirectional view where behavior is motivated by internal or external forces, social cognitive theory takes a tri-directional approach where behavior is a function of continuous interaction between (1) behavioral, (2) environmental, and (3) internal cognitive processes (Bandura, 1977).

Social cognitive theory also extends other traditional learning theories (i.e., classical and operant theories), by taking a new perspective on reinforcement. Unlike traditional learning theories in which direct reinforcement is a prerequisite for learning and behavioral change, in social cognitive theory reinforcement is thought to facilitate the learning process, but is not a precondition (Bandura, 1977). Instead, learning can occur by observing a role model and exerting executive control to decide which behaviors to avoid, modify, or reproduce entirely. The assumption here is that people are capable of understanding the environmental reinforcements and results of socially observed behaviors, and can explicitly choose to behave in ways that are likely to lead to rewards.

One of the primary concepts in social learning theory is modeling, which states that people can learn through observation (Bandura, 1986). According to Bandura, *modeling* is “one of the most powerful means of transmitting values, attitudes, and patterns of thoughts and behavior” (1986, p. 47). In observational learning, Bandura emphasized the active cognitive processes of the learner. Unlike imitative learning or mimicry, modeling is a process of the learner matching his or her behavior given complex rules and structures. Together, Bandura referred to these behaviors intertwined with rules and structures as patterns of behavior or symbolic representations. Because modeling extends mimicry, *symbolic representations* help

individuals learn how and when to apply values, attitudes, and patterns of thought and behavior regardless of circumstances and environments.

Bandura (1986) theorized when and how observers apply modeling to integrate their models' patterns or symbolic representations into their own future behaviors by outlining the following four component processes: (1) attentional, (2) retention, (3) production, and (4) motivational. *Attentional process* determines which models and what behaviors the protégé selects. The second process, *retention*, determines the extent to which the observer retains and remembers the modeled behaviors. Bandura proposed that to retain modeled behavior, several sub-processes (e.g., symbolic coding, cognitive organization, cognitive rehearsal, and enactive rehearsal) must occur. The third component, *production processes*, involves adapting symbolic representations or the retained (and organized) memories of modeled behaviors into actions. The final process, *motivational process*, determines the enactment of the observed model behavior. As Bandura suggested, "people may acquire and retain the capabilities to execute modeled activities adeptly, but rarely or never perform them ... people do not enact everything they learn. They are more likely to adopt modeled behavior if it results in outcomes they value" (1986, p. 68). Information from the environment such as external reinforcement (*tangible* and *social rewards*) and *vicarious reinforcement* (observing a model experience tangible and social rewards) influence the extent to which a person places value on a set of behaviors and performs them.

Two of the component processes outlined in observational learning (Bandura, 1986) are especially relevant in explaining the process by which perceiving a supervisor as a role model may influence a protégé's engagement. First, Bandura posited that individuals are more likely to learn from others in their environment during the *attentional process*, when the "other" is seen as

having characteristics that are *salient*, *attractive*, and have *functional value*. For example, when a supervisor behaves in ways that the protégé perceives as relevant to his or her own self-concept, goals, and values, the protégé will *attend* to those behaviors. Perceiving a supervisor as a role model suggests that the protégé sees the supervisor as worthy of emulating, and attends to the mentor's behaviors, emotions, and attitudes as a means to emulate and model them, and in turn, becoming more engaged in his or her role (Gibson, 2004; Kram, 1985). Second, the *motivation process* explains that protégés, in their own environment, observe the connection between their supervisory role model's actions and how those actions result in behaviors, emotions, and attitudes that are rewarded. This vicarious reinforcement has been applied to understand how learning occurs in organizational settings (Davis & Luthans, 1980; Huber, 1991; Manz & Sims, 1981). Learning through vicarious reinforcement has since been coined *vicarious learning* and occurs when individuals observe the results of others' behaviors (Manz & Sims, 1981).

The current study draws from these observational learning processes, attentional and motivational, as a means for justifying why protégés perceiving their supervisors as role models relates to their engagement.

The Current Study Hypotheses

SDT and social cognitive theory are especially helpful in considering the theoretical connections between mentoring functions (psychosocial support and career development), role modeling, and employee engagement. I utilize these theories to develop and test a more complete picture of how career-development and specific psychosocial support subfunctions foster engagement, and to establish theoretical connections between role modeling and engagement.

Recently, Akkermans, Schaufeli, Brenninkmeijer, and Blonk (2013) found that career development activities, such as networking, were positively related to employee engagement.

They argued that career development activities act as a personal resource, which in turn, fosters employee engagement. Their study focused primarily on career development activities that individuals engage in on their own, not on mentoring relationships, and as such may not have fully captured the effect of mentor behaviors. Livorsi and Byrne (2014) found that the career development function shared variance with engagement above and beyond the psychosocial support function. Additionally, their findings suggested that two psychosocial support subfunctions were closely related to engagement: (1) acceptance and confirmation, and (2) counseling.

Kram (1985) suggested that acceptance and confirmation occurs when mentors provide validation and positive feedback on work-related tasks. According to this framework, receipt of acceptance provides protégés with a sense of self-worth and confirmation that their work is a valuable contribution (Kram, 1985). In addition, counseling, in which mentors provide protégés with guidance and support in the event of work-related challenges, is one method of supporting protégés to achieve mastery. Mentors who counsel provide guidance on removing obstacles, actively listening to the challenges facing protégés, and they provide support as protégés take on increasingly challenging tasks at work (Kram, 1985). According to SDT, people universally have an intrinsic need for competence (Gagné & Deci, 2005). Positive feedback through acceptance and confirmation, and supportive guidance through counseling are both supportive ways mentors can satisfy protégés' competence need. Thus, supervisory mentoring relationships characterized by acceptance and confirmation of the protégé, along with counseling, will satisfy the competence need.

Hypothesis 1: Protégés' perception of their supervisors' acceptance and confirmation is positively related to competence need satisfaction.

Hypothesis 2: Protégés' perception of their supervisors' counseling is positively related to competence need satisfaction.

Self-determination's basic needs theory also provides insight into why supervisors demonstrating the career development subfunctions (sponsorship, exposure and visibility, coaching, protection, and challenging assignments) satisfy protégés' competence needs. When supervisory mentors coach (a critical subfunction within the career development function; Kram, 1985), they provide employees with recommendations and suggestions for skill growth. Likewise, challenging assignments (another subfunction of career development) are given to protégés by mentors to facilitate protégé growth and skill development. Additionally, supervisors who sponsor or endorse protégés demonstrate trust in their protégé's skill set and competence by promoting them amongst their colleagues or peers. Similarly, giving protégés exposure and visibility in an organization demonstrates the mentor's sense of confidence in the protégé's abilities. The competence need should, therefore, be satisfied by protégés' receipt of the career development function.

Hypothesis 3: Protégés' perception of receiving career development subfunctions from their supervisors is positively related to competence need satisfaction.

When needs, such as the competence need, are satisfied, individuals experience feelings of vitality, control, and conditions required to be intrinsically motivated (Deci & Ryan, 2012). It should be noted that the basic needs theory was developed to clarify the needs necessary to become intrinsically motivated, not to foster employee engagement. However, Meyer and Gagné (2008) proposed that conceptual similarities between employee engagement and intrinsic motivation justify the use of SDT as a framework for understanding and studying engagement. Furthermore, research to date has found significant positive relationships between needs

satisfaction and employee engagement (Van den Broeck et al., 2008). Accordingly, I propose a positive relationship between competence needs satisfaction and employee engagement.

Hypothesis 4: Protégés' satisfaction of the competence need is positively related to their engagement.

Recent research has highlighted that career development is not only related to engagement (Akkermans et al., 2013), protégé engagement (Livorsi & Byrne, 2014), job attitudes, and motivation, but is related to an even greater extent than psychosocial support (Allen et al., 2004; Dickson et al., 2013). Combining these research findings and leveraging the mediating mechanism of competence need satisfaction with SDT's basic needs theory, I propose that career development and psychosocial functions of supervisory mentoring are positively related to employee engagement through competence need satisfaction. In support, research has shown the competence need as fully mediating the relationship between environmental constructs (e.g., supportive work environments, autonomous cultures) and intrinsic motivation (Deci, Ryan, Gagné, Leone, Usunov, & Kornazheva, 2001); hence, I propose the same here.

Hypothesis 5a: Protégés' satisfaction of the competence need fully mediates the relationship between perceptions of their supervisors' acceptance and confirmation subfunction and employee engagement.

Hypothesis 5b: Protégés' satisfaction of the competence need fully mediates the relationship between perceptions of their supervisors' counseling subfunction and employee engagement.

Hypothesis 5c: Protégés' satisfaction of the competence need fully mediates the relationship between perceptions of their supervisors' career development function and employee engagement.

Despite theoretical reasons why perceiving a supervisor as a role model should increase one's engagement, role modeling has not been extensively studied in the context of fostering protégé engagement. Through the process of identifying their supervisors as role models, protégés observe their supervisors' attitudes, behaviors, and displayed emotions (Bandura, 1977), and consequently, actively learn new tasks, skills, and norms. Specifically, when protégés identify their supervisors as role models, they signify seeing their supervisors as worthy of observation and of emulating their behaviors. Protégés who identify their mentors as role models internalize that the mentors behave in ways that are perceived as being successful in their careers and roles (Kram, 1985). Implicit in this identification of the supervisor as a role model is that protégés see the supervisor as possessing characteristics that are *salient* and *attractive*, and have *functional value*. By observing the results of others' behaviors (Manz & Sims, 1981), protégés learn to take on the behaviors through vicarious learning. Perceiving someone as a role model and emulating his or her behaviors influences one's own role motivation (Lockwood & Kunda, 1999). Engagement, therefore, being a role motivation construct is likely a direct outcome of the protégé emulating a supervisory role model's behavior, attitudes, and emotions at work.

Hypothesis 6: Protégés' perceptions of supervisory role modeling is positively related to protégé engagement.

According to Gibson (2004), role modeling may be influenced by the protégé's tenure in his or her job. In particular, early in one's job, role modeling may be perceived as even more critical due to a need to identify expectations in the workplace and in one's job. Thus, protégés new in their jobs are more likely to role model, or emulate their mentoring supervisors, than are protégés with longer job tenure. Because they are new and seek active support to achieve

success, junior protégés see their supervisors as possessing valuable skills from which they can learn to be successful. By following their role models, the junior protégés become engaged.

Hypothesis 7: The relationship between protégés' perceptions of their supervisors as role models and protégés' engagement is moderated by protégé tenure. The more junior the protégés, the more they perceive their supervisor as a role model, which increases employee engagement.

When a protégé acknowledges seeing his/her supervisor as someone to emulate and to look up to, it is expected that the relationship between perceptions of role modeling and employee engagement would be enhanced by observing and learning from the supervisor, consistent with social cognitive theory's vicarious learning (Bandura, 1977).

Hypothesis 8: The relationship between protégés' perceptions of their supervisors as role models and protégés' engagement is moderated by vicarious learning on the part of the protégé. The more the protégé acknowledges learning through his or her supervisor, the more he or she perceives the supervisor as a role model, which increases his or her engagement.

METHOD

Sample and Procedure

Since supervisory mentoring is, by nature, a more fluid and informal construct than formal mentoring, a protégé may not explicitly acknowledge a supervisor as a “mentor” even if he or she is providing mentoring functions. Furthermore, supervisors vary a great deal in the extent to which they serve specific mentoring functions to their direct reports (Ragins & Kram, 2007). Therefore, the primary requirement for participating in this study was that the employee/protégé was working at least part-time (classified as 20 or more hours/week) and had a direct supervisor (i.e., self-employed individuals would not be adequate participants).

This field sample was recruited from several organizations across a number of industries including education, professional services, construction, food and beverage, and government service. Participants were recruited primarily from Colorado-based organizations that had professional or personal ties to myself and colleagues.

Of the 173 respondents, 65 (37.6%) were female, 100 (57.8%) were male, and 8 (4.6%) did not disclose their sex. The majority (84.4%) of participants was Caucasian, 5.2% Hispanic or Latino, 1.7% Black or African American, 0.6% Asian, 1.7% identified themselves as belonging to two or more groups, 1.7% acknowledge having a race not listed in the choices, and 4.6% did not disclose race. The average age of respondents was 42.48 years ($SD = 12.35$) with an average tenure in the current role of 5.29 years ($SD = 6.68$) and an average tenure in the organization of 6.84 years ($SD = 7.91$). The average number of years that individuals reported to their current supervisor was 2.75 years ($SD = 3.30$).

A potential limitation of using a convenience sample is the lack of representativeness of the entire working population. However, because I pursued organizations across a wide number

of industries, these organizations were diverse in age, sex, race, and ethnicity, thus increasing the chance of broad generalizability.

Measures

I estimated reliability for all measures within this study's sample using Chronbach's alpha (see Appendix for all measures used).

Role modeling. Role modeling was assessed using an adapted version of the MFQ-9, a scale developed by Castro, Scandura, and Williams (2004). Role modeling was assessed using one of the three subscales in this measure, where role modeling was treated as its own independent variable, consistent with current research on mentoring measurement (e.g., Castro et al., 2004; Dickson et al., 2013).

The MFQ-9 scale was adapted to ask directly about an employee's *supervisor* as opposed to his or her *mentor*. Because supervisory mentoring is a non-traditional approach to mentoring, the protégé may or may not officially acknowledge his or her supervisor as a mentor, and the extent to which the supervisor provides mentoring functions is on a continuum (Raabe & Beehr, 2003), it is appropriate to adapt the scale to include only supervisory language as opposed to mentoring language. This version of the MFQ includes items such as: "My supervisor takes a personal interest in my career." Responses were captured on a 5-point Likert scale format (1 = *Strongly Disagree* to 5 = *Strongly Agree*).

The MFQ-9 has accumulated substantial validity evidence to date in comparison to other mentoring role and function scales (Pellegrini & Scandura, 2005). Previous research on this scale supports that the factors and "subscales" are distinct (Castro et al., 2004; Pellegrini & Scandura, 2005; Scandura & Ragins, 1993). Sample reliability estimates are approximately .84 and .88 for career development function and role modeling, respectively (Pellegrini & Scandura, 2005). The

sample reliability estimate in the current study for role modeling was .86.

Career development, acceptance and confirmation, and counseling. Five career development subfunctions, acceptance and confirmation, and counseling were assessed using an adapted version of Noe's (1988) mentoring function scale, which includes items like: "My supervisor has demonstrated good listening skills in our conversations," and "My supervisor has conveyed feelings of respect for me as an individual." Sample reliability estimates for the broader psychosocial support function as proposed by Noe (1988) are approximately .88. Individual internal reliability estimates have not yet been obtained for the specific subfunctions, and therefore were examined in the current study. Validity evidence on this scale suggests an adequate factor structure and predictive validity (i.e., with perceived support; Noe, 1988). The sample reliability estimates in the current study career-development, acceptance and confirmation, and counseling were .92, .77, and .90, respectively.

Competence need satisfaction. Competence need satisfaction was assessed using Van den Broeck and colleagues' (2010) basic need satisfaction scale, which includes items like: "I really master tasks at my job," and "I feel competent at my job." Sample reliability estimates thus far have been .85 (Van den Broeck et al., 2010). Research suggests the scale demonstrates adequate factor structure, discriminant validity (i.e., with burnout), and predictive validity with important organization-related variables (i.e., self-reported well-being, vigor, and retention). The sample reliability estimates in the current study for competence need satisfaction was .86.

Employee engagement. Employee engagement was assessed using Rich and colleagues' (2010) engagement scale, which includes three dimensions of engagement: (1) cognitive engagement, (2) affective engagement, and (3) physical engagement. Items on the overall scale include statements like: "While I am at work, I work with high intensity," "While I am at work,

I am emotionally connected,” and “While I am at work, I concentrate completely.” One study utilizing this scale reported a reliability estimate of approximately .89 to .94 (depending on the engagement dimension; Rich et al., 2010). Though comprising three dimensions, the scale is scored as a composite. The scale has adequate discriminant validity with other work-related variables (i.e., with job involvement and perceived support), and predictive validity evidence (i.e., supervisor ratings of an individual’s discretionary effort; Rich et al., 2010). The sample reliability estimates for the composite employee engagement scale in the current study was .95.

Vicarious learning. After an extensive search, no measures exist that ask protégés the extent to which they learn by observing their supervisory mentor. Therefore, to examine the extent to which protégés acknowledge learning through their supervisor, I developed a three-item measure. The sample reliability estimates for the vicarious learning scale in the current study was .80.

Control variables. Below is a description of the variables that were used as controls and to minimize the effect of potential common method bias.

Sex of supervisor. There is some evidence that the sex of the mentor influences protégés’ perceptions of mentoring functions. Specifically, female mentors may be perceived as providing more psychosocial support to their protégés compared to male mentors (Tharenou, 2005). I examined if there were significant differences between sex of supervisor and receipt of mentoring functions. Because no significant differences were found between sex of supervisor and perceptions of mentoring functions received, I did not include this variable as a final study control.

Sex of protégé. Tharenou (2005) and Ragins (1989) have noted that female protégés may desire and perceive receiving psychosocial support functions more than their male counterparts

due to different expectations in a mentoring relationship depending on sex. Accordingly, I also examined if there were significant differences between sex of protégé and receipt of mentoring functions. Because no significant differences were found between sex of protégé and perceptions of mentoring functions received, I did not include this variable as a final study control.

Percentage of time as mentor. Supervisors may spend some of their time acting as a mentor and other times not providing mentoring but doing other managerial tasks. It stands to reason that supervisors who spend a large percentage of their time mentoring should demonstrate even more behaviors consistent with the mentoring functions, and be perceived as strong mentors. Moreover, by only asking employees to report their perceptions on supervisory mentoring functions, without measuring the extent to which supervisors may be serving other roles, I would be conceptually blending supervisory mentoring with other supervisory tasks. Therefore, it was critical to ask employees about their perceptions regarding how often their supervisors behaved like mentors. To measure this, I provided a brief definition of mentoring and then asked respondents to answer the following question: “on a scale from 0-100, what percentage of time does your supervisor behave like a mentor?” I used this item as a control for my main study hypotheses.

RESULTS

To confirm adequate power for examining study hypotheses, I conducted a post-hoc power analysis. I used the sample size of 173 and a 13 predictor variable equation, which included the main study predictor variables and control variables. The calculated effect size was .19, which is consistent with a medium effect size ($f^2 = .15$; Cohen 1977). Using an alpha level of .05, the post hoc analyses indicated that the statistical power for this study was .98, which was more than adequate to test the study hypotheses and detect a medium effect size.

I conducted a confirmatory factor analysis (CFA) on all of my measures, verifying that each of the constructs assessed were distinct from one another, and performing in ways consistent with their theoretical conceptualization, which provides construct validity evidence for the measures. I used established fit indices to decide adequacy, namely root mean square error of approximation (RMSEA) and comparative fit index (CFI). Recommended cutoff scores include: (1) RMSEA values should be close to 0.06 to indicate good fit, and (2) CFI values greater than 0.95 indicate good fit (Hu & Bentler, 1999). I also conducted a chi-square difference test, where appropriate, to confirm significant differences between nested models with alternative factor structures. Results of the CFAs are presented in Table 2 and indicate that all measures were conforming to their hypothesized structures. Descriptive statistics, correlations, and internal consistency estimates of study variables are presented in Table 3.

To examine whether or not there were differences in receipt of mentoring functions by employee sex and sex of the supervisor, I conducted an analysis of variance (ANOVA) test. Results are presented in Tables 4 and 5. No significant differences were found between men and women protégés in receipt of mentoring functions. Likewise, perceived mentoring functions also

did not differ based on the sex of the supervisors. Therefore, sex of supervisor and protégé were not used as study controls.

My first mediation hypothesis was that a receipt of acceptance and confirmation would lead to satisfaction of the competence need, which would in turn foster greater engagement. Regression results showed that acceptance and confirmation was significantly and positively related to employee engagement ($b = .16, p < .05, 95\%$ Confidence Interval (CI): .00, .22). However, acceptance and confirmation was not significantly related to competence need satisfaction ($b = .14, ns, 95\%$ CI: -.01, .20); therefore, I did not test for indirect effects, consistent with mediation analysis guidelines (Preacher & Hayes, 2008). Therefore, Hypotheses 1 and 5a were not supported.

In my second mediation hypothesis, I hypothesized that receipt of counseling would lead to satisfaction of the competence need, and in turn, greater engagement. Results indicated a significant and positive relationship between counseling and employee engagement ($b = .21, p < .05, 95\%$ CI: .03, .25). Counseling was not significantly related to competence need satisfaction ($b = .16, ns, 95\%$ CI: -.00, .21), and therefore, I did not test for indirect effects. These results indicated that Hypotheses 2 and 5b were not supported.

In my final mediation hypothesis, I hypothesized that receipt of career development would lead to satisfaction of the competence need, which would in turn foster greater engagement. Career development was significantly and positively related to employee engagement ($b = .20, p < .01, 95\%$ CI: .02, -.07), but not significantly related to competence need satisfaction ($b = -.04, ns, 95\%$ CI: -.16, .09; see Table 6). Given the non-significant relationship between career development and competence need satisfaction, I did not test for indirect effects. Therefore, Hypotheses 3 and 5c were not supported.

Although inappropriate to test for the relationship between competence need satisfaction and employee engagement in the context of mediation as described above, I was interested in studying the relationship between competence need satisfaction and engagement alone (Hypothesis 4). I examined the relationship between competence need satisfaction and employee engagement after including the study control variable. I found a significant relationship between competence need satisfaction and employee engagement ($b = .35, p < .01, 95\% \text{ CI: } .23, .51$). Therefore, Hypothesis 4 was supported.

I examined the relationship between role modeling and employee engagement after controlling for percentage of time supervisors served as mentors. However, role modeling was not significantly related to employee engagement (see Table 7). Therefore, Hypothesis 6 was not supported.

I tested for a moderation effect of job tenure on role modeling and engagement. Given that there was no significant change in variance explained and a non-significant relationship between the interaction variable and employee engagement, results do not support Hypothesis 7 (see Table 7). I also tested for a moderation effect of vicarious learning on role modeling and employee engagement. Results of the analysis indicated there was no significant moderation effect (see Table 8). Therefore, Hypothesis 8 was also not supported.

In summary, the results of this study show: (a) positive support for career development, counseling, and acceptance and confirmation positively and significantly related to employee engagement; (b) no support for career development, counseling, and acceptance and confirmation related to competence need satisfaction (Hypotheses 1,2,3,5a, 5b, and 5c); (c) positive support for competence need satisfaction positively and significantly related to employee engagement (Hypothesis 4); (d) no support for role modeling positively and

significantly related to employee engagement (Hypothesis 6); (e) no support for an interaction effect where job tenure decreases the relationship between role modeling and engagement (Hypothesis 7); and (f) no support for an interaction effect where vicarious learning increases the relationship between role modeling and engagement (Hypothesis 8). An additional noteworthy study finding was that there were no significant differences in receipt of mentoring functions based on sex of the protégé or the supervisor. The positive (and moderate) relationships between employee engagement and career-development, counseling, and acceptance and confirmation indicate that employees who perceive that their supervisors offer supervisory mentoring report high levels of engagement.

DISCUSSION

The purpose of this study was to propose and examine a key antecedent to employee engagement, mentoring in a supervisory-protégé context. The new proposed theoretical model of how engagement is fostered suggests that key mentoring functions including role modeling, career development, acceptance and confirmation, and counseling foster engagement. This model moves away from the notion that psychosocial support is the critical dimension that supervisors provide for their employees to foster engagement (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; May, Gilson, & Harter, 2004). Instead, the proposed and more comprehensive theoretical model suggests that by behaving like mentors (which includes elements like role modeling and career development in addition to psychosocial support functions), supervisors can more effectively foster their subordinates' engagement levels.

The results of the study indicated that career development, counseling, and acceptance and confirmation were all significantly and positively related to employee engagement. These antecedents provide a foundation for a new theoretical model that suggests specific mentoring functions are critical theoretical antecedents for employee engagement. While I did not find mediation, the strong relationships between these mentoring functions and engagement indicate that receipt of functions like career development, acceptance and confirmation, and counseling may meet an intrinsic need among protégés, and in turn foster their engagement. The results of the study also indicated, as expected, that competence need satisfaction is closely related to employee engagement. This finding is consistent with previous research suggesting that SDT is a viable theory to explain how people become engaged (Gagné & Deci, 2005).

Though I proposed that competence need satisfaction would explain the relationship between mentoring functions and employee engagement, the empirical results indicated that

mentoring functions were not significantly related to competence need satisfaction. The results may indicate that mentoring functions serve some other role to promote employee engagement than the one I proposed. That is, mentoring functions may foster engagement with or without employees' feeling competent in their roles. It is also possible that competence need satisfaction is more or less important to some individuals. Though SDT suggests that competence need satisfaction is a universal need that should be satisfied through challenging work environments, which supervisory mentors should influence (Ryan & Deci, 2000), it is possible that individuals may satisfy the competence need through numerous mechanisms such as mentors outside of the organization, coworkers, or in arenas outside of work.

I proposed that a moderation effect would exist between job tenure and role modeling because role modeling is expected to be influenced by the protégé's tenure in his or her job (Gibson, 2004). In particular, early in one's job, role modeling may be perceived as even more critical due to the stage in one's job where protégés new in their jobs are more likely to role model, and that role modeling would foster engagement. Results from the study show no evidence to support that job tenure or vicarious learning moderate the relationship between role modeling and employee engagement. It is possible, however, that protégés early in their careers look to other activators for engagement, like indicators of career growth or career potential. Therefore, the results may suggest that protégé receipt of the role modeling function from their supervisors fosters engagement regardless of job tenure.

I hypothesized that a moderation effect would exist between vicarious learning and role modeling because a protégé who acknowledges learning by watching his or her supervisor, who he or she considers a role model, is more likely to become deeply engaged in his or her work. I did not, however, find significant moderation effects. This lack of moderation may be due to a

smaller relationship between role modeling and engagement. That is, it may be that the percentage of time a protégé acknowledges that his or her supervisor acts as a mentor (the key study control variable) may be more critical in fostering engagement than perceiving a mentor as a role model.

Implications

Though not all hypotheses were supported, examining this new theoretical model highlights several important theoretical implications for the engagement and mentoring literatures exist. First, the primary implication for the engagement literature is that this new theoretical model expands our understanding of how supervisors foster engagement. To date, the perspective has primarily been a psychosocial support model, suggesting that supervisors engage their followers through supportive mechanisms. The more vocational perspective of the current theoretical model suggests the value of career development as a critical antecedent in fostering engagement.

Second, it is clear that competence need satisfaction is associated with employee engagement. This finding suggests that competence need satisfaction may be a critical individual antecedent for employee engagement. Recent theoretical advancements in SDT suggests that need satisfaction, including competence need satisfaction should promote greater intrinsic motivation, and in turn foster engagement (Gagné & Deci, 2005). Thus, the study finding that competence need satisfaction is closely related to employee engagement has two primary theoretical contributions: (1) competence need satisfaction may be an understudied and important individual antecedent for employee engagement, and (2) findings from this study support the use of SDT to explain how individuals may become engaged.

The study also has theoretical contributions to the mentoring literature. Results indicating a positive, significant, and moderately strong relationship between career development, acceptance and confirmation, and counseling in a supervisory context illustrates the potential value of applying mentoring to a supervisory relationship. This increases our theoretical understanding of *who* may be best suited to mentor individuals in order to foster engagement. Though this study did not compare formal mentoring relationships with supervisory mentoring relationships, the study findings are consistent with previous findings that supervisory mentoring yields moderate effect sizes and promotes subjective work-related outcomes (Chao et al., 1992).

This study also has several practical implications. First, this study has practical lessons for leadership development efforts; by identifying the effects of specific behaviors on protégé engagement including career development activities, counseling, and providing acceptance and confirmation to employees, leadership development efforts can be targeted. Based on the results, leaders may be trained to understand the value of these functions and specific behaviors associated with each. For example, a leadership development effort might train leaders how to foster career development by delegating challenging assignments for their subordinates or asking their subordinate questions about his or her career path and goals.

Practically, it may also be important for organizations to recognize that competence need satisfaction is closely related to employee engagement. By ensuring that individuals feel challenged to grow and achieve results and goals, organizations may foster engagement through an increased competence need satisfaction.

Limitations, Strengths, and Directions for Research

The current study relied on a cross-sectional design using self-reports from one online survey, which may be considered a limitation in terms of conclusions drawn and their

generalizability. A dilemma here, however, is that the nature of the constructs studied require self-report perceptions. Specifically, protégés' perceptions of their supervisors cannot be assessed by another person – they must come from the protégé, him or herself.

To maximize participation, I used one online survey, which reduced the time burden on participants and avoided issues of attrition across multiple survey sessions. Consequently, the current study design is susceptible to common method bias, which could potentially influence the relationships between study variables. Common method bias occurs when constructs are measured using the same method, and this “common method” increases (or decreases) the strength of relationships between variables. It could be argued, that common method bias occurred and is reflected in the size of significant correlations between mentoring functions.

The reliance on convenience samples is another limitation for this study. Convenience sampling can result in low generalizability and limited diversity in perspectives. Unfortunately, and perhaps due to this method, there was indeed limited variability in sex and ethnicity in my sample. Though my recruitment efforts were vast, I was, in the end, unable to find one organization sufficiently large enough to provide a full sample and willing to participate in this study. Therefore, convenience sampling method was used to provide access to a large, diversified working population, and achieve data collection in timely manner.

Another potential limitation is the way role modeling is measured in this study. Though I have conceptualized role modeling as a third and distinct function in supervisory mentoring, existing role modeling scales to date (including the MFQ-9) does not measure specific mentoring behaviors associated with role modeling. Instead, the MFQ-9 acknowledges that mentoring is a cognitively constructed concept and measures the extent to which a protégé sees his or her mentor as a role model. While the MFQ-9 has received substantial validation evidence, the

current study's results related to role modeling may be limited by the way in which role modeling was measured.

A last potential limitation in this study's ability to contribute to the mentoring literature is the reliance on protégé perceptions only. Increasing attention on the mentor's perceptions and experiences in the mentoring relationship within the mentoring literature (Eby, 2010) indicate a trend towards capturing both protégé and mentor views of the relationship. Several mentoring researchers have proposed that researchers draw from intact dyads (the mentor and the protégé) as a means for understanding how mentors and protégés influence one another (Ragins & Kram, 2007). The purpose of my study, however, was to examine protégés' perceptions of their supervisor's mentoring as an antecedent of engagement, a purpose sufficiently achieved without mentor perceptions. Moreover, one could argue that the collection of mentor perceptions of their view of the mentoring relationship in this study would have done nothing to contribute to understanding how engagement within the protégé is fostered since the current study was primarily concerned with understanding protégé perceptions of mentoring received and how these perceptions influence his or her own engagement. Thus, the study findings imply that there is inherent value of understanding protégé perceptions of supervisory behaviors vs. actual supervisor behavior (the two may not be one and the same). Nonetheless, my contribution to the mentoring literature is somewhat limited by the study methodology.

The current study also has several notable strengths. First, I was able to collect data from a working and moderately diverse sample. By recruiting employees from several organizations I was able to avoid collecting data from an online or student sample. This was beneficial as the study variables required that individuals be able to report about his or her supervisor, satisfaction

with competence in a working context, and overall employee engagement. Thus, a working sample allowed me to have greater confidence in the data.

An additional strength of the study was the use of methods to ensure that common method bias was not an issue in my study. According to Conway and Lance (2010), researchers have a responsibility for addressing common method variance in an a priori fashion. I took a priori precautions for avoiding common method variance by providing participants' anonymity and using constructs with minimal construct overlap.

A final strength of this study was its theoretical and practical relevance given current organizational research and business challenges. The current study and proposed theoretical model adds value to both the engagement and mentoring literatures, expanding our understanding of how engagement is fostered and illustrating the value of supervisors behaving like mentors. Additionally, the current study is practically relevant. Organizations forced with identifying alternative means to formal mentoring programs may find practical value in understanding the supervisory behaviors that are critical to fostering protégé engagement.

Given the results of this study, I have also identified key areas for future research. First, though the results of study did not support competence need satisfaction as a mediator between mentoring functions and employee engagement, the clear direct association between mentoring functions and employee engagement suggests that some other individual- or organizational-level variable may be responsible for mediating the relationship. One potential mediating mechanism not studied here is another SDT need: need for relatedness. To satisfy this need in the work context, individuals must feel a close and meaningful relationship with others. It is possible that supervisors who mentor may satisfy this need, and in turn foster engagement.

Second, my results did not support role modeling as a critical function for fostering employee engagement and I did not find support for the moderating mechanisms in my theoretical model. However, future researchers might examine how supervisory mentors model engagement and encourage their protégés to learn to be engaged. It is possible that alternative methodologies could more appropriately answer this theoretical question. Future research might explore this study question using qualitative methodology. For example, researchers could explicitly ask protégés to report on how they learn on the job and what if anything they learn by watching their supervisors.

Conclusion

The current study has added to our understanding of what fosters employee engagement, offering both theoretical and practical implications for the engagement and mentoring literatures. Study findings indicated partial support for a new theoretical model regarding how supervisory mentors foster protégé engagement. Most notably, the study findings indicated that career development, acceptance and confirmation, and counseling were all positive and significant predictors of protégé engagement indicating that specific mentoring functions not previously examined may serve to foster engagement. Though the study results did not reveal mediation or moderation, the study highlighted the theoretical (and practical) importance of a supervisor's investment in his or her direct report's career development and in specific psychosocial support subfunctions.

Table 2

Measures	χ^2	<i>df</i>	CFI	RMSEA	90% CI for RMSEA	$\Delta\chi^2$
Vicarious learning and role modeling as 1 factor	88.78	9	.86	.23	(.18, .27)	
Vicarious learning and role modeling as 2 factors	15.78	8	.98	.07	(.01, .13)	73.00**
Mentoring psychosocial subfunctions as 1 factor	84.49	27	.92	.12	(.09, .15)	
Mentoring psychosocial subfunctions as 2 factors (counseling and acceptance and confirmation)	72.75	26	.94	.11	(.08, .14)	11.74**
Mentoring career development subfunctions as 1 factor	209.33	54	.83	.08	(.12, .16)	22.00**
Mentoring subfunctions as 5 factors (protection, exposure and visibility, challenging assignments, coaching, and sponsorship)	231.23	55	.83	.15	(.13, .17)	
Engagement as 1 factor	1358.92	135	.62	.23	(.21, .24)	
Engagement as 3 factors (physical, cognitive, and affective)	386.00	132	.92	.10	(.09, .11)	972.00**
Competence need satisfaction as 1 factor	30.54	9	.95	.11	(.07, .16)	
Measurement model as 1 factor	5044.03	1274	.35	.15	(.14, .15)	
Measurement model as 9 factors	2323.89	1238	.95	.08	(.07, .08)	2720**

Fit Indices for Confirmatory Factor Analyses (N=173)

Note. χ^2 = Chi-square; *df* = degrees of freedom; CFI = comparative fit index; RMSEA = root mean square error of approximation.

90% CI RMSEA = 90% confidence interval for RMSEA; $\Delta\chi^2$ is the chi-square difference * $p < .05$, ** $p < .01$

Table 3

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Employee engagement	4.17	0.59	(.95)							
2. Acceptance and confirmation	3.78	0.86	.23**	(.77)						
3. Counseling	3.71	0.89	.28**	.71**	(.90)					
4. Career-development	3.63	0.82	.29**	.70**	.76**	(.92)				
5. Role modeling	3.55	0.98	.23**	.51**	.67**	.73**	(.86)			
6. Competence need satisfaction	4.24	0.57	.33**	.08	.08	-.06	-.11	(.86)		
7. Vicarious learning	3.48	0.87	.20**	.46**	.49**	.68**	.66**	-.19*	(.80)	
8. Job tenure	5.29	6.68	-.09	.07	-.03	-.10	-.09	.28**	-.19*	(--)
9. Percentage of time as mentor	40.28	30.69	.25**	.35**	.46**	.54**	.52**	-.09	.40**	-.19*

Descriptive Statistics and Intercorrelations Between Key Study Variables (N=173)

Note. The alpha internal consistency reliability coefficients appear in parentheses along the diagonal

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

Table 4

Variable	Male		Female		<i>t</i> (173)	<i>p</i>	95% CI	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			LL	UL
Role modeling	3.47	0.91	3.70	1.07	-1.47	.14	-.54	.07
Career development	3.66	0.82	3.59	0.82	.49	.62	-.19	.33
Acceptance and confirmation	3.85	0.82	3.65	0.90	1.42	.15	-.07	.47
Counseling	3.70	0.88	3.72	0.89	-.08	.93	-.29	.26

Contrast of Male vs. Female Protégés Self-Reported Receipt of Mentoring Functions

Note. LL= The lower limit of the confidence interval; UL= the upper limit of the confidence interval

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

Table 5

Variable	Male		Female		<i>t</i> (173)	<i>p</i>	95% CI	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			LL	UL
Role modeling	3.56	0.98	3.54	1.01	1.4	.88	-.35	.40
Career development	3.63	0.85	3.63	0.71	.01	.99	-.32	.32
Acceptance and confirmation	3.76	0.88	3.82	0.76	-.38	.70	-.39	.26
Counseling	3.67	0.92	3.87	0.71	-1.4	.24	-.54	.14

Contrast of Self-Reported Receipt of Mentoring Functions by Sex of Supervisor

Note. LL= The lower limit of the confidence interval; UL= the upper limit of the confidence interval

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

Table 6

Equation	Independent	Dependent	β	R^2	ΔR^2	F
1	Control Variables	Engagement	.18**			
	Acceptance and Confirmation		.16*	.08	.02	7.60**
2	Control Variables	Competence Satisfaction	-.16*			
	Acceptance and Confirmation		.14	.03	.01	2.64
3	Control Variables	Engagement	.00			
	Counseling		.14*	.09	.03	8.98**
4	Control Variables	Competence Satisfaction	-.16*			
	Counseling		.16	.02	.02	2.54
5	Control Variables	Engagement	.27**			
	Career Development		.15**	.10	.02	9.22**
6	Control Variables	Competence Satisfaction	-.00			
	Career Development		-.03	.00	.00	.45

Summary of Study Mediation Analyses (N=173)

Note: β = Standardized coefficients after variables were entered into regression equation, ΔR^2 = change in R^2 , ΔF = change in F ;

* $p < .05$; ** $p < .01$

Table 7

	Engagement			
	Step 1 β	Step 2 β	Step 3 β	Step 4 β
Control Variables	.24**	.18*	.20*	.21*
Role Modeling		.12	.11	.05
Job Tenure			.10	-.24
Job Tenure X Role Modeling				.36
R^2	.06	.07	.08	.08
ΔR^2	.06	.01	.01	.00
ΔF	10.46	1.66	1.91	.95

Summary of Job Tenure and Role Modeling Moderation Analyses (N=173)

Note: β = Standardized coefficients after all variables have been entered into the regression equation, ΔR^2 = change in R^2 ,

ΔF = change in F ; * p <.05; ** p <.01

Table 8

	Engagement			
	Step 1 β	Step 2 β	Step 3 β	Step 4 β
Independent Variables				
Control Variables	.26**	.19*	.18*	.17*
Role Modeling		.13	.08	.12
Vicarious Learning			.08	.01
Vicarious Learning X Role Modeling				.13
R^2	.06	.08	.08	.08
ΔR^2	.06	.01	.00	.00
ΔF	12.42	2.39	.69	.07

Summary of Role Modeling and Vicarious Learning Moderation Analyses (N=173)

Note: β = Standardized coefficients after all variables have been entered into the regression equation, ΔR^2 = change in R^2 ,

ΔF = change in F ; * p <.05; ** p <.01

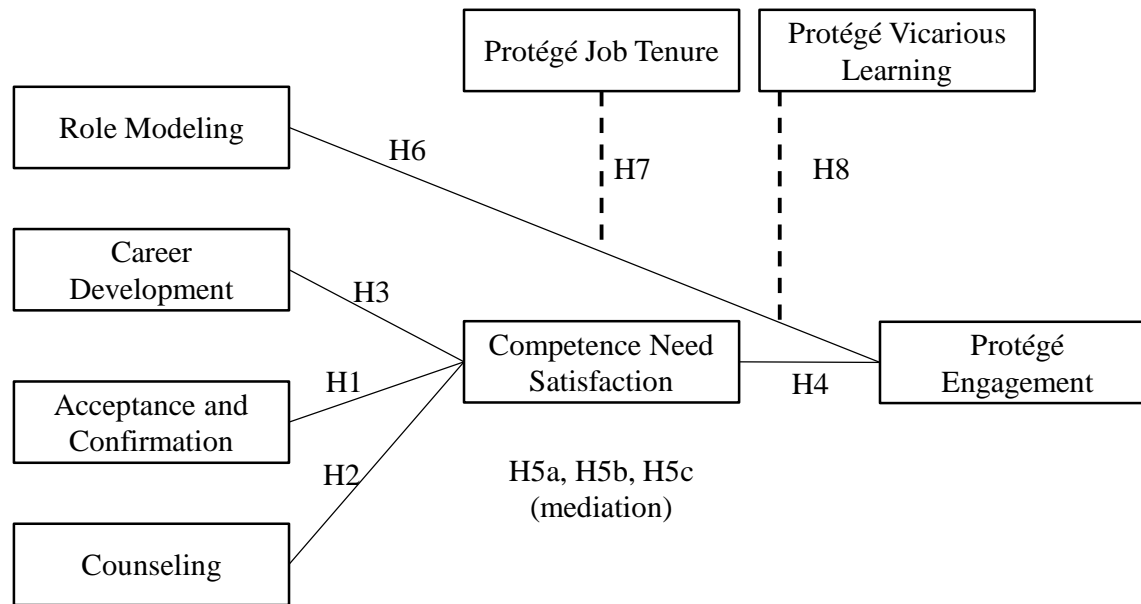


Figure 1

Theoretical Model for the Current Study

REFERENCES

- Agarwal, U. A., Datta, S., Blake-Beard, S., & Bhargava, S. (2012). Linking LMX, innovative work behaviour and turnover intentions: The mediating role of work engagement. *Career Development International, 17*, 208-230. doi: 10.1108/13620431211241063
- Airila, A., Hakanen, J., Punakallio, A., Lusa, S., & Luukkonen, R. (2012). Is work engagement related to work ability beyond working conditions and lifestyle factors? *International Archives of Occupational and Environmental Health, 8*, 915-925. doi:10.1007/s00420-012-0732-1
- Akkermans, J., Schaufeli, W. B., Brenninkmeijer, V., & Blonk, R. W. B. (2013). The role of career competencies in the Job Demands-Resources model. *Journal of Vocational Behavior, 83*, 356-366. doi: 10.1016/j.jvb.2013.06.011
- Alderfer, C. P. (1972). *Existence, relatedness, and growth: Human needs in organizational settings*. New York, NY: Free Press.
- Allen, J., Jimmieson, N. L., Bordia, P., & Irmer, B. E. (2007). Uncertainty during organizational change: Managing perceptions through communication. *Journal of Change Management, 7*, 187-210. doi:10.1080/14697010701563379
- Allen, T. D., Eby, L. T., Poteet, M. L., Lentz, E., & Lima, L. (2004). Career benefits associated with mentoring for protégés: A meta-analysis. *Journal of Applied Psychology, 89*, 127-136. doi:10.1037/0021-9010.89.1.127
- Allen, T. D., & Finkelstein, L. M. (2003). Beyond mentoring: Alternative sources and functions of developmental support. *Career Development Quarterly, 51*, 346-355. doi: 10.1002/j.2161-0045.2003.tb00615.x

- Allen, T. D., Finkelstein, L. M., & Poteet, M. L. (2009). *Designing workplace mentoring programs: An evidence-based approach*. Malden, MA: Wiley-Blackwell.
- Aryee, S., Walumbwa, F.O., Zhou, Q., & Hartnell, C.A. (2012). Transformational leadership, innovative behavior, and task performance: Test of mediation and moderation processes. *Human Performance, 25*, 1-25. doi: 10.1080/08959285.2011.631648
- Bakker, A. B., & Bal, M. P. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology, 83*, 189-206. doi:10.1348/096317909X402596
- Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology, 99*, 274-284. doi:10.1037/0022-0663.99.2.274
- Bakker, A. B., & Schaufeli, W. B. (2008). Positive organizational behavior: Engaged employees in flourishing organizations. *Journal of Organizational Behavior, 29*, 147-154. doi: 10.1002/job.515
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1986). *Social foundations of thought and action: A social-cognitive view*. Englewood Cliffs, NJ: Prentice-Hall.
- Basow, S. A., & Howe, K. G. (1979). Model influence on career choices of college students. *Vocational Guidance Quarterly, 27*, 239-243. doi: 10.1002/j.2164-585X.1979.tb00991.x
- Bass, B.M. (1985). *Leadership and performance beyond expectations*. New York, NY: Free Press.

- Baugh, S.G., & Fagenson-Eland, A. (2005). Boundaryless mentoring: An exploratory study of the functions provided by internal versus external organizational mentors. *Journal of Applied Social Psychology, 35*, 939-955. doi: 10.1111/j.1559-1816.2005.tb02154.x
- Behrend, T. S., Sharek, D. J., Meade, A. W., & Wiebe, E. N. (2011). The viability of crowdsourcing for survey research. *Behavior Research Methods, 43*, 800-813. doi: 10.3758/s13428-011-0081-0
- Blake, B. F., Valdiserri, J., Neuendorf, K. A., & Nemeth, J. (2006). Validity of the SDS-17 measure of social desirability in the American context. *Personality and Individual Differences, 40*, 1625-1636. doi: 10.1016/j.paid.2005.12.007
- Blau, P. M. (1964). *Exchange and power in social life*. New York: John Wiley & Sons.
- Branch. S. (1999). The 100 best companies to work for in America. *Fortune, 139*, 118-130.
- Byrne, Z. S., Dik, B. J., & Chiaburu, D. S. (2008). Alternatives to traditional mentoring in fostering career success. *Journal of Vocational Behavior, 72*(3), 429-442.
doi:10.1016/j.jvb.2007.11.010
- Castro, S. L., Scandura, T. A., & Williams, E.A. (2004, November 3-6). *The tale of two measures: Evaluation and comparison of Scandura's (1992) and Ragins and McFarlin's (1990) mentoring measures*. Paper presented at the Southern Management Association Meeting, San Antonio, TX.
- Chao, G. T., Walz, P. M., & Gardner, P. D. (1992). Formal and informal mentorship: A comparison on mentoring function and contrast with nonmentored counterparts. *Personnel Psychology, 45*, 619-636. doi: 10.1111/j.1744-6570.1992.tb00863.x

- Conway, J. M., & Lance, C. E. (2010). What reviewers should expect from authors regarding common method bias in organizational research. *Journal of Business and Psychology, 25*, 325-334. doi: 10.1007/s10869-010-9181-6
- Davis, T. R., & Luthans, F. (1980). A social learning approach to organizational behavior. *Academy of Management Review, 5*, 281-290. doi: 10.5465/AMR.1980.4288758
- de Villiers, J. R., & Stander, M. W. (2011). Psychological empowerment, work engagement and turnover intention: The role of leader relations and role clarity in a financial institution. *Journal of Psychology in Africa, 21*, 405-412. doi: 10.1080/14330237.2011.10820474
- Deci, E. L. (1975). *Intrinsic motivation*. New York, NY: Plenum.
- Deci, E. L., & Ryan, R. M. (2012). Self-determination theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of Theories in Social Psychology* (Vol. 1, pp. 416-437). Thousand Oaks: SAGE Publications.
- Deci, E. L., Ryan, R. M., Gagné, M., Leone, D. R., Usunov, J., & Kornazheva, B. P. (2001). Need satisfaction, motivation, and well-being in the work organizations of a former eastern bloc country: A cross-cultural study of self-determination. *Personality and Social Psychology Bulletin, 27*, 930-942. doi: 10.1177/0146167201278002
- Dickson, J., Kirkpatrick-Husk, K., Kendall, D., Longabough, J., Patel, A., & Scielzo, S. (2013). Untangling protégé self-reports of mentoring functions: Further meta-analytic understanding. *Journal of Career Development, 29*, 1-19. doi: 10.1177/0894845313498302
- Eby, L. T., Allen, T. D., Evans, S. C., Ng, T., & DuBois, D. L. (2008). Does mentoring matter? A multidisciplinary meta-analysis comparing mentored and non-mentored individuals. *Journal of Vocational Behavior, 72*, 254-267. doi: 10.1016/j.jvb.2007.04.005

Eby, L. T., Rhodes, J., & Allen, T. D. (2007). Definition and evolution of mentoring. In T. D. Allen & L. T. Eby (Eds.). *Blackwell handbook of mentoring*. (pp. 1-20). Oxford, UK: Blackwell Publishing.

Erikson, E.H. (1985). *The life cycle completed: A review*. New York, NY: W.W. Norton.

Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior research methods*, 39, 175-191.

Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26, 331-362. doi:10.1002/job.322

Gallup Organization (2011-2012). *State of the Global Workforce*. Washington, DC: U.S. Copyright Office.

Gibson, D. E. (2004). Role models in career development: New directions for theory and research. *Journal of Vocational Behavior*, 65, 134-156. doi: 10.1016/s0001-8791(03)00051-4

Goffman, E. (1961). *Encounters: Two studies in the sociology of interaction*. Indianapolis, IN: Bobbs-Merril Co.

Graen, G.B. (1976). Role-making process within complex organizations. In M.D. Dunnette (Ed.), *Handbook of industry and organizational psychology* (pp.1201-1245). Chicago, IL: Rand McNally.

Hackman, J.R., & Oldham, G.R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16, 250-279. doi: 10.1016/0030-5073(76)90016-7

- Haggard, D. L., Dougherty, T. W., Turban, D. B., & Wilbanks, J. E. (2011). Who is a mentor? A review of evolving definitions and implications for research. *Journal of Management*, 37, 280-304. doi: 10.1177/0149206310386227
- Hall, D. T. (1976). *Careers in organizations*. Glenview, IL: Scott, Foresman.
- Hansen, A., Byrne, Z. S., & Kiersch, C. (2014). How interpersonal leadership relates to employee engagement. *Journal of Managerial Psychology*, 29, 953-972. doi: 10.1108/JMP-11-2012-0343
- Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87, 268-279. doi:10.1037//0021-9010.87.2.268
- Huber, G.P. (1991). Organizational learning: The contributing processes and the literatures. *Organization Science*, 88-115. doi:10.1287/orsc.2.1.88
- Jung, J. (1986). How useful is the concept of role model? A critical analysis. *Journal of Social Behavior and Personality*, 1, 525-536. doi:
- Kahn, W. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33, 692-724. doi:10.2307/256287
- Katz, D., & Kahn, R. L. (1978). *The social psychology of organizations*. New York: Wiley.
- Kram, K. E. (1985). *Mentoring at work*. Glenview, IL: Scott, Foresman.
- Krumboltz, J. D. (1996). A learning theory of career counseling. In M. L. Savickas, & W. B. Walsh (Eds.), *Handbook of career counseling theory and practice* (pp. 55-80). Palo Alto, CA: Davis-Black Publishing.
- Levinson, D. J., Darrow, D., Levinson, M., Klein, E. B., & McKee, B. (1978). *Seasons of a Man's Life*. New York: Academic Press.

- Livorsi, E. C., & Byrne, Z. S. (2014). *Fostering protégé work engagement through supervisory mentoring: An empirical examination of the role of mentoring functions*. Unpublished Manuscript, Department of Psychology, Colorado State University, Fort Collins, Colorado.
- Lockwood, P., & Kunda, Z. (1999). Increasing the salience of one's best selves can undermine inspiration by outstanding role models. *Journal of Personality and Social Psychology*, *76*, 214–228. doi: 10.1037/0022-3514.76.2.214
- Manz, C. C., & Sims, H. P. (1981). Vicarious learning: The influence of modeling on organizational behavior. *Academy of Management Review*, *6*, 105-113. doi: 10.5465/AMR.1981.4288021
- May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety, and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*, *77*, 11-37. doi:10.1348/096317904322915892
- Meyer, J. P., & Gagné, M. (2008). Employee engagement from a self-determination theory perspective. *Industrial and Organizational Psychology*, *1*, 60-62. doi: 10.1111/j.1754-9434.2007.00010.x
- Noe, R.A. (1988). An investigation of the determinants of successful assigned mentoring relationships. *Personnel Psychology*, *41*, 457-479. doi: 10.1111/j.1744-6570.1988.tb00638.x
- Pellegrini, E. K., & Scandura, T. A. (2005). Construct equivalence across groups: An unexplored issue in mentoring research. *Educational and Psychological Measurement*, *65*, 323-335. doi:10.1177/0013164404268665

- Podsakoff, P.M., MacKenzie, S.B., Lee, J.-Y., & Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879-903. doi: 10.1037/0021-9010.88.5.879
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*, 879-891. doi: 35400060659738.0027
- Raabe, B. & Beehr, T.A. (2003). Formal mentoring versus supervisory and coworker relationships: Differences in perceptions and impact. *Journal of Organizational Behavior, 24*, 271-293. doi: 10.1002/job.193
- Ragins, B. R., & Sundstrom, E. (1989). Gender and power in organizations: A longitudinal perspective. *Psychological bulletin, 105*, 51-88. doi: 10.1037/0033-2909.105.1.51
- Ragins, B.R., & Kram, K.E. (2007). Mentoring at work: Theory, research, and practice. *Administrative Science Quarterly, 54*, 158-161. doi: 10.2189/asqu2007.3.158
- Rich, B. L, LePine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal, 53*, 617-635.
doi:10.5465/AMJ.2010.51468988
- Robinson, D., Perryman, S., & Hayday, S. (2004). *The Drivers of Employee Engagement*. Institute for Employment Studies, Brighton, UK.
- Rothman, S. (2008). Job satisfaction, occupational stress, burnout, and work engagement as components of work-related wellbeing. *South African Journal of Industrial Psychology, 34*, 11-16.

- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68–78. doi: 2000-13324-007
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology, 21*, 600-619. doi: 10.1108/02683940610169
- Scandura, T.A. (1992). Mentorship and career mobility: An empirical investigation. *Journal of Organizational Behavior, 13*, 169-174. doi: 10.1002/job.4030130206
- Scandura, T. A., & Ragins, B. R. (1993). The effects of sex and gender role orientation on mentorship in male-dominated occupations. *Journal of Vocational Behavior, 43*, 251-265. doi: 10.1006/jvbe.1993.1046
- Schaufeli W.B., & Bakker A.B. (2004). Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *Journal of Organizational Behavior, 25*, 293-315. doi:10.1002/job.248
- Schaufeli, W.B., Salanova, M., González-Romá, V. & Bakker, A.B. (2002). The measurement of engagement and burnout: a two sample confirmatory factor analytic approach. *Journal of Happiness Studies, 3*, 71-92. doi:10.1023/A:1015630930326
- Society for Human Resource Management (2012, April). SHRM survey findings: Employee recognition programs. Retrieved from <http://www.shrm.org/research/surveyfindings.com>
- Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior: A new look at the interface between non-work and work. *Journal of Applied Psychology, 88*, 518. doi:10.1037/0021-9010.88.3.518

- Stöber, J. (2001). The Social Desirability Scale-17 (SDS-17): Convergent validity, discriminant validity, and relationship with age. *European Journal of Psychological Assessment, 17*, 222-232. doi: 10.1027//1015-5759.17.3.222
- Tharenou, P. (2005). Does mentor support increase women's career advancement more than men's? The differential effects of career and psychosocial support. *Australian Journal of Management, 30*, 77-109. doi: 10.1177/031289620503000105
- Thomas, C. H., & Lankau, M. J. (2009). Preventing burnout: The effects of LMX and mentoring on socialization, role stress, and burnout. *Human Resource Management, 48*, 417-432. doi: 10.1002/hrm.20288
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout, and engagement: The role of basic psychological need satisfaction. *Work & Stress, 22*, 277-294. doi: 10.1080/02678370802393672
- Zachary, L. J. (2011). *Creating a mentoring culture: The organization's guide*. John Wiley & Sons.

APPENDIX

Employee Engagement Scale (Rich, LePine, & Crawford, 2010)

Below are a number of statements regarding how you invest your energies at work. Please indicate your level of agreement with each statement using the following scale:

1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree

1. I work with intensity on my job.
2. I exert my full effort to my job.
3. I devote a lot of energy to my job.
4. I try my hardest to perform well on my job.
5. I strive as hard as I can to complete my job.
6. I exert a lot of energy on my job.
7. I am enthusiastic about my job.
8. I feel energetic about my job.
9. I am interested in my job.
10. I am proud of my job.
11. I feel positive about my job.
12. I am excited about my job.
13. At work, my mind is focused on my job.
14. At work, I pay a lot of attention to my job.
15. At work, I concentrate on my job.
16. At work, I focus a great deal of attention on my job.
17. At work, I am absorbed in my job.
18. At work, I devote a lot of attention to my job.

Adapted Mentoring Function Scale: Role Modeling (MFQ9; Castro, Scandura & Williams, 2004)

This scale has been adapted from the MFQ-9 to refer to the individual's supervisor instead of "mentor".

Please indicate your level of agreement with each statement using the following scale:

1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree

1. I try to model my behavior after my supervisor.
2. I admire my supervisor's ability to motivate others.
3. I respect my supervisor's ability to teach others.

Adapted Mentoring Function Scale: Career Development (Noe, 1988)

This scale has been adapted from the Mentoring Function Scale to refer to the individual's supervisor instead of "mentor".

Please indicate your level of agreement with each statement using the following scale:

1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree

1. My supervisor has shared history of his/her career with me.

2. My supervisor has encouraged me to prepare for advancement.
3. My supervisor has suggested specific strategies for accomplishing work objectives.
4. My supervisor has given me feedback regarding my performance in my present job.
5. My supervisor has shared ideas with me.
6. My supervisor has reduced unnecessary risks that could threaten the possibility of me receiving a promotion.
7. My supervisor has helped me finish assignments/tasks or meet deadlines that otherwise would have been difficult to complete.
8. My supervisor has helped me meet new colleagues.
9. My supervisor has given me assignments/tasks that have increased my contact with key leaders.
10. My supervisor has given me responsibilities that have increased my contact with people who may judge my potential for future advancement.
11. My supervisor has given me assignments or tasks that prepare me for a promotion.
12. My supervisor has given me assignments that present opportunities to learn new skills.
13. My supervisor has provided me with support and feedback regarding my performance on challenging assignments.

Adapted Mentoring Function Scale: Counseling (Noe, 1988)

This scale has been adapted from the Mentoring Function Scale to refer to the individual's supervisor instead of "mentor".

Please indicate your level of agreement with each statement using the following scale:

1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree

1. My supervisor has demonstrated good listening skills in our conversations.
2. My supervisor has discussed my questions or concerns regarding feelings of competence, commitment to advancement, relationships with peers and supervisors or work/family conflicts.
3. My supervisor has shared his/her personal experiences to provide an alternative perspective to my problems.
4. My supervisor encourages me to talk openly about any anxieties or fears that detract me from my work.
5. My supervisor has conveyed empathy for the concerns and feelings I have discussed with him/her.
6. My supervisor has kept feelings and doubts I shared with him/her in strict confidence.

Adapted Mentoring Function Scale: Acceptance and Confirmation (Noe, 1988)

This scale has been adapted from the Mentoring Function Scale to refer to the individual's supervisor instead of "mentor".

Please indicate your level of agreement with each statement using the following scale:

1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree

1. My supervisor has conveyed feelings of respect for me as an individual.
2. My supervisor has encouraged me to try new ways of behaving in my job.

3. My supervisor has asked me for suggestions concerning problems she/he has encountered at work.

Need for Competence Scale (Van den Broeck, Vansteenkiste, De Witte, Sonens, & Lens, 2010)

This subscale measures need satisfaction of one of three SDT needs.

Please indicate your level of agreement with each statement using the following scale:

1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree

7. I don't really feel competent in my job.
8. I really master tasks at my job.
9. I feel competent at my job.
10. I doubt whether I am able to execute my job properly.
11. I am good at the things I do in my job.
12. I have the feeling that I can accomplish the most difficult tasks at work.

Protégé Vicarious Learning (developed for this study)

Please indicate your level of agreement with each statement using the following scale:

1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree

1. I pay close attention to my supervisor's behaviors.
2. I know how to perform by watching what my supervisor does.
3. I learn from observing my supervisor at work.

Demographic Variables

1. What is your age as of your last birthday?
2. What is your sex (M/F)?
3. What is your supervisor's sex (M/F)?
4. Please indicate your race
 - a. Hispanic or Latino
 - b. White
 - c. Black or African American
 - d. Native Hawaiian or other Pacific Islander
 - e. Asian
 - f. American Indian or Alaska Native
 - g. Two or more races
5. How many employees are in your company?
 - 25 or less
 - 26-100
 - 101-500
 - More than 500
6. What industry best describes your company?

- Agriculture, Forestry, Fishing and Hunting
 - Utilities
 - Construction
 - Manufacturing
 - Retail Trade
 - Information
 - Finance and Insurance
 - Real Estate and Rental and Leasing
 - Professional, Scientific, and Technical Services
 - Education Services
 - Health Care and Social Assistance
 - Arts, Entertainment, and Recreation
 - Accommodation and Food Services
 - Public Administration
 - Other
7. Which of the following best describes your level within your organization?
- Owner/Partner/Shareholder
 - Upper management
 - Mid-level management
 - Non-management supervisor
 - Non-managerial with no supervisory responsibilities
 - Other
8. Which of the following best describes how many hours you work?
- Part-time (at least 20 hrs/wk but less than 40 hrs/wk)
 - Full-time (at least 40 hrs/wk)
9. How long have you been...
- with your company (in months)
 - in your current job (in months)
 - reporting to your current supervisor (in months)