

Winter 2006

# **A Structural Model of Relationships Between Employee Characteristics, Supervisory Mentoring Behaviors and Job Satisfaction**

Florence R. Jinadu  
*Old Dominion University*

Follow this and additional works at: [https://digitalcommons.odu.edu/psychology\\_etds](https://digitalcommons.odu.edu/psychology_etds)



Part of the [Industrial and Organizational Psychology Commons](#)

---

## **Recommended Citation**

Jinadu, Florence R.. "A Structural Model of Relationships Between Employee Characteristics, Supervisory Mentoring Behaviors and Job Satisfaction" (2006). Doctor of Philosophy (PhD), Dissertation, Psychology, Old Dominion University, DOI: 10.25777/3a4k-zk55  
[https://digitalcommons.odu.edu/psychology\\_etds/130](https://digitalcommons.odu.edu/psychology_etds/130)

This Dissertation is brought to you for free and open access by the Psychology at ODU Digital Commons. It has been accepted for inclusion in Psychology Theses & Dissertations by an authorized administrator of ODU Digital Commons. For more information, please contact [digitalcommons@odu.edu](mailto:digitalcommons@odu.edu).

A STRUCTURAL MODEL OF RELATIONSHIPS BETWEEN  
EMPLOYEE CHARACTERISTICS, SUPERVISORY MENTORING  
BEHAVIORS AND JOB SATISFACTION

by

Florence R. Jinadu

B.A. May 1997, The University of North Carolina at Chapel Hill

M.A. May 1999, George Mason University

M.S. May 2002, Old Dominion University

A Dissertation submitted to the Faculty of Old Dominion University in Partial  
Fulfillment of the Requirements for the Degree of

DOCTOR OF PHILOSOPHY

INDUSTRIAL-ORGANIZATIONAL PSYCHOLOGY

OLD DOMINION UNIVERSITY

December 2006

Approved by:

---

Terry L. Dickinson (Director)

---

Diane Catanzaro (Member)

---

Donald D. Davis (Member)

---

Janis Sanchez-Hucles (Member)

## ABSTRACT

### A STRUCTURAL MODEL OF RELATIONSHIPS BETWEEN EMPLOYEE CHARACTERISTICS, SUPERVISORY MENTORING BEHAVIORS AND JOB SATISFACTION

Florence R. Jinadu  
Old Dominion University, 2006  
Director: Dr. Terry L. Dickinson

Organizational researchers have consistently found that developmental mentoring has a positive effect on employees professional and career success. Some of the benefits that have been cited include increased job satisfaction, increased organizational commitment, and increased self-esteem among mentored employees. In addition to these short-term benefits, developmental mentoring has also been found to positively impact long-term career outcomes in the form of increased compensation and career mobility for mentored employees as compared to non-mentored employees. Traditionally, mentors have been described as influential senior members of an organization who provide career support and developmental opportunities to less experienced employees, who are referred to as protégés. In recent years, researchers have suggested that immediate supervisors may serve as mentors to their subordinates. In this capacity, a supervisor goes beyond the formal boss-subordinate relationship, serving as a role model to the subordinate and providing the subordinate with coaching, support, and career-related counseling. The purpose of the present study was to extend our understanding of developmental mentoring within supervisory relationships by testing a structural model of relationships between employee characteristics, supervisory mentoring behaviors, and facets of employee job satisfaction. The model was tested using data from 327 employees of a

large Southeastern city government who provided information about their personal characteristics, job satisfaction, and supervisory mentoring experiences. The results indicated that employees' core self-evaluations impact the extent to which supervisory mentoring is received and the extent to which employees are satisfied with the supervisor, the advancement opportunities, and the opportunities for growth and development on the job. Similar findings were obtained for racial and gender similarity with the supervisor. However, the relationships between demographic similarity and supervisory mentoring were mediated by interpersonal comfort with the supervisor. Limitations of the findings and suggestions for future research are discussed.

This dissertation is dedicated to my parents, Adele Jinadu and Gloria Mead-Jinadu. None of my accomplishments would have been possible without your continuous and unconditional love and support. Thank you for being such wonderful parents and role models.

## ACKNOWLEDGMENTS

I would like to thank my committee members, Dr. Terry Dickinson, Dr. Donald Davis, Dr. Janis Sanchez-Hucles, and Dr. Diane Catanzaro, for their feedback and guidance during the dissertation process. I am especially thankful for the guidance and mentoring of Dr. Dickinson, my advisor and dissertation chair. Your wisdom, advice, and support have meant a great deal to me during my tenure as a graduate student. I would also like to thank my family and friends for their love and encouragement throughout this difficult process.

## TABLE OF CONTENTS

	Page
LIST OF TABLES .....	viii
LIST OF FIGURES.....	ix
INTRODUCTION.....	1
HISTORY OF MENTORING .....	2
REVIEW OF THE MENTORING LITERATURE .....	4
FUNCTIONS OF MENTORING.....	4
PHASES OF MENTORING .....	5
OUTCOMES OF MENTORING .....	6
TYPES OF MENTORING.....	7
PURPOSE OF THE STUDY .....	9
ANTECEDENTS OF SUCCESSFUL MENTORING RELATIONSHIPS .....	11
CORE SELF-EVALUATIONS .....	12
LOCUS OF CONTROL.....	14
GENERAL SELF-EFFICACY .....	16
SELF-ESTEEM.....	17
EMOTIONAL STABILITY .....	17
DEMOGRAPHIC SIMILARITY .....	19
OUTCOMES OF SUCCESSFUL MENTORING RELATIONSHIPS.....	23
JOB SATISFACTION .....	23
SATISFACTION WITH GROWTH AND DEVELOPMENT .....	24
HYPOTHESIZED MODEL .....	25
METHOD.....	29
PARTICIPANTS.....	29
MEASURES.....	29
MENTORING CONSTRUCTS.....	29
CORE SELF-EVALUATIONS .....	31
INTERPERSONAL COMFORT .....	31
JOB SATISFACTION .....	31
SATISFACTION WITH GROWTH AND DEVELOPMENT .....	32
DEMOGRAPHIC SIMILARITY .....	32
PROCEDURE .....	32
DATA ANALYSIS .....	32
CONFIRMATORY FACTOR ANALYSES .....	36
CONSTRUCTION OF SCALE PARCELS.....	36
MEASUREMENT MODEL ANALYSES .....	38
STRUCTURAL MODEL ANALYSES.....	38
SAMPLE SIZE REQUIREMENTS.....	39

	Page
RESULTS.....	41
CONFIRMATORY FACTOR ANALYSES .....	41
MEASUREMENT MODEL ANALYSES .....	41
STRUCTURAL MODEL ANALYSES.....	43
DISCUSSION .....	47
CORE SELF-EVALUATIONS .....	47
DEMOGRAPHIC SIMILARITY .....	48
SUPERVISORY MENTORING BEHAVIORS.....	50
SUBORDINATE SATISFACTION OUTCOMES .....	51
LIMITATIONS OF THE FINDINGS .....	52
CONCLUSIONS.....	53
REFERENCES.....	56
APPENDIXES	
A. EMPLOYEE QUESTIONNAIRE .....	65
B. RESULTS OF THE CONFIRMATORY FACTOR ANALYSIS .....	79
C. RESULTS OF THE MEASUREMENT MODEL FOR DEPENDENT VARIABLES .....	87
D. RESULTS OF THE MEASUREMENT MODEL FOR INDEPENDENT VARIABLES.....	91
VITA .....	94



## LIST OF TABLES

Table	Page
1. Participant Demographic Data .....	30
2. Scale Means, Standard Deviations, and Inter-correlations .....	33
3. Coefficient Alpha Scale Reliabilities .....	37
4. Beta Structural Coefficients .....	44
5. Gamma Structural Coefficients .....	45

## LIST OF FIGURES

Figure	Page
1. Hypothesized Model .....	28

## INTRODUCTION

Modern work organizations are faced with numerous challenges including rapid increases in globalization, diversity, and technological growth. In response to these challenges, many organizations are placing greater emphasis on the continuous growth and development of their employees. Providing employees with continuous developmental opportunities fosters a labor force that possesses the competencies needed for competitiveness in the global marketplace. In addition, organizations that provide employees with growth opportunities are more likely to retain a workforce that is both satisfied and committed (e.g., Koeborg, Boss, Chappell & Ringer, 1994; Loviscky, 1996). In fact, Loviscky specifically identified employee satisfaction with growth and development opportunities as being a significant contributor to overall job satisfaction and organizational commitment (e.g., Loviscky, 1996).

Developmental mentoring has emerged as a popular means through which to develop and retain a skilled and committed workforce. The strategic benefits of focusing on employee growth and development through mentoring have been widely cited. For example, several researchers have associated developmental mentoring with decreased turnover rates in organizations (e.g. Dockery & Sahl, 1998). The ability to retain talented employees is critical to the survival of modern work organizations and mentoring can be a successful means through which to achieve this critical outcome. In addition, mentoring has been cited as an effective method for leadership development (Cummings & Worley, 1997),

---

This dissertation adheres to the format of the *Journal of Applied Psychology*.

employee socialization (Ostroff & Kozlowski, 1993), diversity management (Thomas, 1990), and on-the-job-training (Royer, 2001).

The present study focuses on mentoring that is provided by immediate supervisors. Although rarely discussed explicitly in the mentoring literature, the influence of supervisors on employee development has recently gained attention (e.g. Loviscky, 1996; Ragins, Cotton, & Miller, 2000). By virtue of their position, supervisors have unique opportunities to serve as mentors and provide employees with the developmental opportunities that impact job outcomes. In this study, supervisory mentoring is defined in terms of the extent to which employees report that their supervisors provide them with a set of developmentally oriented behaviors.

### *History of Mentoring*

Mentoring is formally defined as a developmental relationship that exists between an older, more experienced individual and a younger protégé. The purpose of this relationship is to provide the protégé with the guidance and counseling needed to develop and succeed in life endeavors. Although empirical investigations of mentoring practices have been a fairly recent phenomenon, the concept and practice of mentoring has existed throughout history. The first recorded mentoring relationship was reported in Homer's *Odyssey*, in which Mentor was given the responsibility of guiding and advising King Odysseus' son, Telemachus (Russell & Adams, 1997). According to this tale, Mentor provided his young protégé Telemachus with the counseling and grooming that he needed to assume the position of King. The longstanding tradition of mentoring is also illustrated in records from the renaissance period indicating that mentoring was the commonly accepted method of educating young people (Wickman, 1997).

More recently, mentoring has emerged as a popular human resource development tool in work organizations. As applied in organizational settings, mentoring is defined as an intense, on-going interpersonal exchange between a senior experienced colleague (mentor) and a less experienced junior colleague (protégé) in which the mentor provides support, direction, and feedback regarding career plans and personal development (Russell & Adams, 1997). The mentors' goal in providing support is to help protégés navigate the organizational barriers that may impede their career growth.

Most organizational researchers and practitioners agree that mentoring is a critical practice for modern organizations that are hoping to maximize the potential of their human resources. In a survey by Accountemps (1996), 96% of executives polled said that they support formal or informal mentoring in the workplace, more than half (57%) felt it was extremely important, and 39% felt it was at least somewhat important. A testament to the benefits of mentoring in organizations can be found in a report by Konieczo (2001) in which sixty-four of the firms on *Fortune* magazine's list of "The 100 Best Companies to Work for in America" reported having mentoring programs. In addition, Infoworld Media Group (1998) reported that 71% of *Fortune* 500 companies used mentoring to ensure that learning was occurring within the organization. Companies included in the *Fortune* 500 listings are the nation's top performers based on revenues, profits, and market value. These figures indicate that mentoring is a widely implemented organizational development tool, particularly among the nation's industry leaders.

### *Review of the Mentoring Literature*

Despite the mainstream popularity of mentoring in organizations, empirical research in the area has only recently begun to gain momentum. The research that has been conducted has focused primarily on the functions served by mentors (Kram, 1983; Noe, 1988), the phases through which mentoring relationships develop (Kram, 1983), and the outcomes of mentoring for protégés, mentors, and organizations (Chao, Walz, & Gardner, 1992).

*Functions of mentoring.* One of the most influential researchers in the area of organizational mentoring is Kram (1983, 1985), who identified the functions and phases of mentoring in the workplace. Kram (1985) conducted biographical interviews with middle- to upper- level managers in public utility and manufacturing firms. Content analysis of the interviews revealed that mentors provided their protégés with two distinct mentoring functions namely, career and psychosocial functions. The existence of these mentoring functions was confirmed through factor analysis by Noe (1988).

The career function of mentoring serves to facilitate and enhance the career development of protégés. It includes behaviors such as sponsorship, exposure and visibility, coaching, protection, and the provision of challenging assignments (Noe, 1988). Career-related mentoring activities share a number of commonalities. First, career-related mentoring requires the mentor to have a relatively high degree of experience and influence in the organization, which gives the mentor the ability to help and support a protégé. Without a great deal of organizational experience and influence, the mentor is not likely to have a strong impact on a protégé's career development. Also,

career-related mentoring functions share the common goal of promoting the protégé's career advancement.

The psychosocial mentoring function serves to enhance the protégé's sense of competence, self-esteem, and confidence (Kram, 1985; Noe, 1988). Serving in this capacity, the mentor provides the protégé with role modeling, acceptance and confirmation, counseling, and friendship. Unlike the career-related mentoring functions, psychosocial mentoring does not depend on the mentor's organizational status or influence. Rather, psychosocial mentoring is related to the degree of interpersonal attraction and shared identity that are experienced between mentors and protégés.

*Phases of mentoring.* In addition to identifying the functions of mentoring, Kram (1983, 1985) identified four distinct phases through which mentoring relationships progress. The first phase is referred to as the initiation period, and it occurs within the first 6 to 12 months. During initiation, the mentor and protégé begin to develop a relationship. This relationship then proceeds to a cultivation phase in which the mentoring relationship becomes more intense; the mentor and protégé become more comfortable with each other and begin to understand the value of their relationship. This phase of mentoring lasts anywhere from 2 to 5 years and is typically followed by a separation phase. During the separation phase, mentors and protégés experience a period of structural and psychological separation. It is at this point that the protégé begins to develop an identity distinct from that of his/her mentor. Finally, the mentoring relationship enters a redefinition phase marked by a greater sense of collegiality between the mentor and protégé.

Chao (1997) provided support for the mentoring phases that were proposed by Kram (1983). She collected data in a longitudinal research study examining the career development of protégés who were alumni from a large Midwestern university and a small private institute. In addition to replicating the four mentoring phases of initiation, cultivation, separation, and redefinition, Chao was able to identify differences between the phases in terms of the mentoring functions that were most prevalent. For example, protégés in the initiation phase reported receiving the least amount of psychosocial and career-related support as compared to protégés in the remaining phases of their mentoring relationships.

*Outcomes of mentoring.* The outcomes of mentoring have been widely researched and include benefits for protégés, for mentors, and for organizations as a whole. The advantages of mentoring for protégés include greater job satisfaction (Corzine, Buntzman, & Busch, 1994; Chao, 1997), greater organizational commitment (Fagenson-Eland, Marks, & Amendola, 1997), increased compensation (Chao et al., 1992), and increased career mobility (Whitely, Dougherty, & Dreher, 1991). Chao (1997) showed that these positive protégé mentoring outcomes are stable in that they can endure over a five-year period.

The benefits of mentoring to mentors include an increased sense of professional identity, organizational visibility, and career rejuvenation, as well as self-satisfaction and improved perspective (Hegstad, 2002). In addition, mentors may gain trust and respect within the organization (Hunt & Michael, 1983), as well as an increased sense of competence and self-efficacy in their managerial roles (Kram, 1985).



Organizational benefits of mentoring include improved performance and reduced turnover (Fagenson-Eland et al., 1997). These benefits are a likely result of the increased commitment and satisfaction that is experienced by protégés. In addition, organizations may benefit from reduced training costs when mentoring is used as an on-the-job-training method for new employees (Hunt & Michael, 1983; Royer, 2001). At the same time, mentoring provides an opportunity for greater use of more experienced employees who can rejuvenate themselves by passing on the knowledge they have accrued in their professional careers. Finally, mentoring programs enhance leadership and skill development, and allow managers to more rapidly identify and promote talent in the organization (Eby, 1997; Wilson & Elman, 1996).

*Types of mentoring.* Traditionally, organizational mentoring has been ad hoc. An older, senior member of an organization would spot an up-and-comer and decide to support and promote the younger worker's upward career mobility. This form of mentoring is referred to as informal mentoring and has reported benefits for all parties involved. For the protégé, there are obvious career benefits. For the mentor, who often perceives the protégé as a younger version of self, there is fulfillment in contributing to the protégé's career advancement as well as to the future of the company. However, informal mentoring practices seldom meet the needs of women and minorities who are an integral part of the nation's labor force. Informal mentoring is based on a natural attraction that draws the mentor to a protégé and leads him to take a vested interest in the protégé's well-being. This attraction is typically based on perceived similarity, leading upper level managers, most of whom are white males, to select protégés who are also white males.

In response to the development needs of women and ethnic minorities, many organizations began to implement formal mentoring programs that provide opportunities for mentoring to groups who were previously excluded from informal developmental networks. Formal mentoring relationships are created when individuals are assigned to a mentor, rather than being chosen by one (Noe, 1988). Despite the increasing use of formal mentoring in organizations, very little research has investigated the outcomes of this practice. Rather, formal programs have been implemented based on the assumption that the positive results that have been associated with informal mentoring are generalizable to formal relationships. However, the few studies that have investigated formal mentoring have found that it is less effective, on average, than informal mentoring. For example, individuals in formal mentoring relationships tend to report lower levels of mentoring than individuals in informal relationships (Allen, Day, & Lentz, 2002; Chao et al., 1992). Researchers have suggested that formal mentoring relationships may not generate the same benefits as informal relationships because they lack the interpersonal attraction and bond that is characteristic of naturally emerging informal mentoring relationships (Noe, 1988).

Supervisory mentoring represents an alternate form of mentoring that exists within the formal supervisor-subordinate relationship. Although supervisors in most organizations are encouraged to engage in many of the mentoring behaviors that have been identified, supervisors have received limited attention in the mentoring literature. The literature that does exist suggests that the supervisory status of mentors influences the nature of the mentor-protégé relationship. For example, protégés with supervisory

mentors report more interpersonal comfort with their mentors (Mullen, 1994), and greater career mentoring received from their mentors (Sosik & Godshalk, 2004).

### *Purpose of the Study*

Mentoring research has focused heavily on the nature and outcomes of mentoring relationships, particularly protégé outcomes. These outcomes (e.g. increased job satisfaction, increased organizational commitment, and increased compensation) suggest that mentoring is a worthwhile practice for employees and for organizations as a whole. However, relatively few studies have investigated the individual factors that influence the development and quality of mentoring relationships in organizations. The purpose of this study was to propose and evaluate a model that identifies the personal characteristics that are related to the receipt of mentoring in organizations. In addition, the model identifies short-term protégé outcomes that are related to the level of mentoring received.

The current study investigated mentoring in terms of the extent to which immediate supervisors engage in developmental mentoring behaviors with subordinates. As mentioned, this population (i.e. supervisors) has received very little attention in the mentoring literature as a potential source of mentoring for employees. However, leadership research suggests that supervisors often engage in developmental behaviors that parallel the mentoring functions described by Kram (1983). For example, leader-member-exchange theory (LMX) describes relationships within supervisor-subordinate dyads in the workplace (Dansereau, Graen, & Haga, 1975). The theoretical basis for LMX theory is provided by social exchange theory, which states that individuals are motivated to form relationships with other individuals who offer valued resources. Limitations on cognitive and organizational resources make it difficult for supervisors to

form close working relationships with all subordinates in their span-of-control. For this reason, LMX theory suggests that supervisors only develop strong relationships with a select group of subordinates who are referred to as “in-group” members. These in-group members receive more personalized attention, greater autonomy, more challenging work assignments, and develop closer relationships with their supervisor. In other words, in-group membership is associated with higher levels of supervisory mentoring.

The relationship between LMX and mentoring was supported by Thibodeaux and Lowe (1996) who found that subordinates in high LMX relationships also reported that they experienced supervisory mentoring relationships. Similarly, Scandura and Schriesheim (1994) in their comparison of LMX and supervisory mentoring found that subordinates perceived the two types of relationships as being similar. However, Scandura and Schriesheim note that supervisory mentoring goes beyond the boundaries of LMX in the long-term commitment and personal resources that are allocated in mentoring towards subordinate development.

A few researchers have investigated the nature and outcomes of supervisory mentoring (e.g. Green & Bauer, 1995); Douglas & Schoorman, 1988; Scandura & Schriesheim, 1994). Douglas and Schoorman found that supervisory mentoring yielded similar outcomes to traditional mentoring in that those employees who experienced more career and psychosocial mentoring from supervisors also experienced higher performance and organizational commitment levels. Similarly, Scandura and Schriesheim found that supervisory career mentoring was associated with higher salaries and promotion rates for subordinates after controlling for the quality of leader-member-exchange. These findings

suggest that supervisory mentoring yields similar outcomes to traditional forms of mentoring that have been researched.

In the following sections, I will review literature that relates to the antecedents and outcomes of mentoring in organizations. This literature will then be integrated to develop a model that describes the supervisory mentoring process in organizations.

#### *Antecedents of Successful Mentoring Relationships*

Much of the literature on mentoring has described protégés as being passive recipients of mentoring behaviors such as coaching, feedback, and role modeling. The assumption of this literature is that the amount of mentoring received by protégés depends entirely on the mentors' commitment to the mentoring relationship. However, researchers have acknowledged that employees are becoming much more proactive with regard to their career development (e.g., Seibert, Kraimer, & Crant, 2001), and some evidence suggests that protégés are able to influence the quality of developmental mentoring they receive. One of the factors associated with this influence is protégé personality. Specifically, researchers have suggested that personality factors determine the extent to which protégés seek out mentoring relationships and encourage the receipt of mentoring from organizational leaders (Turban & Dougherty, 1994).

Seibert et al. (2001) described the importance of proactive personality to career success. They define a proactive personality as someone who initiates change and takes responsibility for their career development. They found a positive relationship between proactive personality and career initiative including the extent to which individuals sought feedback from and consultation with senior colleagues in their organization. This finding suggests that there may in fact be a relationship between individual level

personality traits and the receipt of mentoring. The employee personality trait that was examined in this research is core self-evaluations, a fairly stable individual difference variable that may influence the extent to which employees form developmental work relationships.

*Core self-evaluations.* Core self-evaluations refer to individuals' basic conclusions or bottom-line evaluations about themselves (Judge, Locke, & Durham, 1997). Judge et al. identified four specific traits that underlie the broader concept of core self-evaluations. These specific traits include self-esteem, general self-efficacy, locus of control, and emotional stability. These four traits represent the most commonly investigated personality variables in the field of psychology (Erez & Judge, 2001). As noted by Erez and Judge, over 48,000 studies have been devoted to the core self-evaluation traits. However, this research has tended to study the personality factors in isolation, disregarding their common conceptual basis.

Judge et al. (1997) were the first researchers to integrate the core traits into a meaningful taxonomy that explained the strong relationships that exist between them. Judge and his colleagues argued that correlations between the four traits exist because they are indicators of a common higher-order trait (i.e. core self-evaluations), as opposed to being independent constructs. Judge, Erez, Bono, and Thoreson (2003) provided support for the validity of the core self-evaluations construct. They found that a direct measure of core self-evaluations strongly converged with independent measures of the four core traits. In addition, the researchers found that the direct measurement of core self-evaluations predicted job performance and job satisfaction as well as an optimal weighting of the four underlying traits, and provided unique prediction beyond that

provided by the Big Five personality factors (i.e., conscientiousness, agreeableness, emotional stability, openness, and extraversion). Erez and Judge (2001) also provided support for the validity of the broader concept of core self-evaluations. They found that the integration of the four core traits into a single concept of core self-evaluations resulted in greater prediction of job performance than the four individual traits.

The bulk of research relating to core self-evaluations in the workplace has focused on the construct as a dispositional predictor of job satisfaction (e.g., Judge, Locke, Durham, & Kluger, 1998; Judge & Bono, 2001) and job performance (e.g., Erez & Judge, 2001; Judge & Bono, 2001). This research suggests that individuals with positive core self-evaluations are more likely to report greater levels of job satisfaction. Further research has indicated that the relationship between core self-evaluations and job satisfaction is partly mediated by subjective job characteristics (Judge et al., 1998) and objective job complexity (Judge, Bono, & Locke, 2000). Specifically, these findings suggest that individuals with positive core self-evaluations not only perceive their jobs as being more challenging but also find themselves in job situations that are actually more challenging and complex. With regard to mentoring, these findings would imply that individuals with more positive core self-evaluations will perceive greater developmental opportunities and also receive greater developmental opportunities on the job. Although researchers have yet to investigate this possibility for a direct measure of core self-evaluation, specific components of core self-evaluations have been evaluated with respect to mentoring. In the sections below, I describe each core self-evaluation trait and describe the relationship of each trait with mentoring functions.

*Locus of control.* Locus of control refers to the extent to which individuals attribute the cause or control of events to themselves or to the external environment (Spector, 1982). Individuals who are described as having an internal locus of control are referred to as internals, whereas individuals who are described as having an external locus of control are referred to as externals.

The concept of locus of control was developed from Rotter's (1954) social learning theory as an explanation for the failure of some individuals to respond as predicted to rewards and punishments. This failure was attributed to a belief by these individuals that the occurrence of rewards or punishments was unrelated to their actions and therefore not in their control. The extent to which individuals perceive outcomes as being under their control (i.e., internal locus of control) has been shown to be a powerful predictor of human behavior across situations. For example, Phares (1976) summarized findings concerning behavioral differences between internals and externals. He noted that internals exert greater efforts to control their environment, seek out information more actively, use information more effectively in problem-solving situations, and exhibit better learning than externals.

Locus of control has been shown to relate to a number of organizationally relevant variables. For example, individuals with an internal locus of control have reported greater job satisfaction, greater consideration and initiation of structure from supervisors, less role stress, greater perceived autonomy and control, and longer job tenure than employees with an external locus of control (Spector, 1988).

Employees' locus of control should also have profound effects on their work behaviors. Internals are more likely to perceive themselves as having control over



personal work outcomes, whereas externals are more likely to perceive these outcomes as being determined by external factors over which they have no control. Given this premise, one would expect individuals with an internal locus of control to take a more proactive approach to their career development. Perceiving greater control over work outcomes, internals should be more motivated to develop skills that will positively impact performance levels and ultimately lead to the attainment of desired rewards such as promotions, pay increases, and recognition. In contrast, externals are less likely to perceive the link between personal effort, skill development, and organizational rewards, and they should be less motivated to engage in or encourage developmental career opportunities. In addition, internals should derive greater benefits from their mentoring relationships. As mentioned earlier, individuals with an internal locus of control are more active information seekers and tend to make better use of the information they receive (Phares, 1976). This suggests that protégés with an internal locus of control are more likely to receive career-enhancing functions such as feedback, coaching, and challenge from their mentors. They are also more likely to effectively utilize the information that is received from mentors.

Turban and Dougherty (1994) provided support for these hypotheses in a study that investigated the effects of protégé personality on mentoring and career success. Among a sample of 147 managers and professionals, they found that protégé personality, including locus of control, influenced the extent to which protégés initiated mentoring relationships. In turn, initiation of mentoring mediated the relationship between locus of control and the receipt of mentoring. This study shed some light on the extent to which locus of control influences the formation of informal mentoring relationships. However,

it did not examine the direct relationship between personality and the nature of mentoring received in formal relationships (e.g. supervisory relationships). The current research attempts to do so by investigating the extent to which subordinate core self-evaluations relate to the extent to which immediate supervisors are perceived to provide mentoring functions.

*General self-efficacy.* Self-efficacy refers to the perception that an individual has of his or her ability to perform a specific task (Bandura, 1982; Gist & Mitchell, 1992). In work contexts, self-efficacy refers to an individual's belief in his or her ability to gather, synthesize, and accomplish the actions required to perform job tasks.

Self-efficacy is an important organizational variable because of its implications for motivation and job performance. With regard to motivation, self-efficacy has been strongly related to the amount of effort that an individual allocates towards a task (Bandura, 1982). Individuals who are low in self-efficacy for a specific task do not believe that they have the personal resources that are necessary for success and as such, they are less likely to encourage challenges or expend effort in trying to accomplish challenging tasks.

Recently, a distinction has been made between specific self-efficacy and general self-efficacy (e.g., Eden, 1996; Chen, Gully, Whiteman, & Kilcullen, 2000). The former is described as falling in line with the more traditional conceptualization of self-efficacy as a state-like construct that describes an individual's belief in ability to perform a given task. General self-efficacy on the other hand is described as a more stable (i.e. trait-like) individual difference variable. As defined by Eden (1996), general self-efficacy refers to

an individual's belief in overall ability to perform in a wide variety of challenging activities. It therefore captures individual perceptions of general self-competence.

In a developmental context, general self-efficacy should also impact the amount of mentoring that is received by a protégé. Specifically, protégés who are high in general self-efficacy are more likely to welcome challenging opportunities from a mentor. This is because they are confident in their ability to accomplish challenging tasks, whereas individuals with low self-efficacy lack this confidence and are less likely to welcome challenging opportunities. As high self-efficacy protégés are provided with and engage in challenging job tasks, mentors are likely to gain greater confidence in their abilities. This increase in the mentors' perceptions of protégé ability should make the mentor more willing to risk his or her reputation as well as invest time and energy towards the protégés' career development.

*Self-esteem.* Self-esteem refers to how favorably individuals evaluate themselves (Turban & Dougherty, 1994). Employees with high self-esteem evaluate themselves more positively than individuals with low self-esteem, and are more likely to face challenging tasks with confidence. Self-esteem is typically discussed as an outcome of mentoring (e.g., Koberg, Boss, & Goodman, 1998), however, Turban and Dougherty found that employee self-esteem influenced the initiation of mentoring relationships. It is likely that self-esteem will also relate to the receipt of mentoring functions because individuals with low self-esteem are less likely to encourage developmental challenges from their supervisors.

*Emotional stability.* Emotional stability is a broad personality trait that refers to the tendency to be confident, secure, and steady (Judge & Bono, 2001).

Individuals who are low in emotional stability experience greater anxiety and are less likely to welcome the tension that may be associated with mentoring functions such as challenging work assignments, feedback, and sponsorship. Turban and Dougherty (1994) provided support for the role of emotional stability in mentoring. They found that managers who are high in emotional stability are more likely to initiate mentoring relationships.

As summarized, a small number of studies have investigated the relationships between specific core self-evaluation traits and employee mentoring. A limitation of these studies is that despite strong conceptual similarities between the core self-evaluation traits, no researcher has studied the traits in combination with regard to their impact on mentoring, and few researchers have considered their common conceptual source when describing their impact on mentoring. An exception is Hezlett (2003), who used meta-analytic techniques to examine the relationships of individual characteristics with career, psychosocial, and overall mentoring. As expected, she found that core self-evaluations had positive relationships with each of these aspects of mentoring. However, Hezlett's results are limited due to the small number of studies included in the meta-analysis, as well as the deficient assessment of the concept of core self-evaluations. This deficiency lays in the fact that general self-efficacy, a defining aspect of core self-evaluations, was not investigated in any of the studies included in her meta-analysis.

The current research addresses gaps in the literature by investigating the relationship between core self-evaluations and supervisory mentoring. Unlike previous studies that indirectly measured core self-evaluations as a composite of personality traits (e.g. Judge & Bono, 2001), this study will include a direct measure of core self-

evaluations. Judge et al. (2003) provided empirical justification for direct measurement of core self-evaluations. They found that a 12-item measure of core self-evaluations validly predicted job outcomes as well as an optimal weighting of the four specific core traits. The researchers noted that a direct measure of core self-evaluations allows for greater brevity, as well as more precise measurement.

*Hypothesis 1:* There will be a positive relationship between core self-evaluations and the receipt of supervisory mentoring.

*Demographic similarity.* Researchers have found that demographic factors influence the formation and quality of mentoring relationships (e.g. Ragins, 1997; Thomas, 1990). As noted by Dreher and Cox (1996), individuals who are similar to one another are more likely to perceive each other as attractive, predictable, and enjoyable. This interpersonal attraction is likely to facilitate the formation of mentoring relationships, as well as the extent to which mentors engage in mentoring behaviors with protégés. These findings are especially relevant to women and ethnic minorities, who are gaining access to organizational positions in unprecedented numbers. However, women and ethnic minorities occupy few organizational leadership positions and are therefore less available to serve in a mentoring capacity. The coupling of increased workforce diversity with the prevalence of white male leadership is likely to make diversified mentoring a common practice for women and ethnic minorities in American organizations. This trend is illustrated in research findings indicating that women are more likely than men to be in cross-gender mentoring relationships (Burke, McKeen, & McKenna, 1990; Ragins & Cotton, 1999) and that Blacks are more likely than Whites to be in racially diverse mentoring relationships (Thomas, 1990). Thomas collected information from 487 developmental relationships. He found that 91% of the white male

protégés in his study were in homogeneous mentoring relationships with white male mentors, whereas the majority of female and black protégés were in heterogeneous mentoring relationships (also with white male mentors).

Unfortunately, relatively little is known about the nature and outcomes of diverse developmental relationships given that much of the early research on mentoring was based on white male samples in homogeneous mentoring relationships (Ragins, 1997). Additional research is needed to determine the extent to which findings based on homogeneous samples generalize to individuals in diverse developmental relationships. Additional research is also needed to identify the mechanisms through which demographic diversity influences mentoring processes and outcomes.

Some research has supported the idea that diverse mentoring relationships differ in nature and outcomes from homogeneous mentoring relationships. For example, Ragins and McFarlin (1990) assessed the effects of gender composition on mentoring relationships. They found that protégés in same-gender mentoring relationships were more likely than protégés in cross-gender mentoring relationships to engage in social activities with their mentors. The limited social interaction that occurs between mentors and protégés is likely to have negative effects on the extent to which protégés benefit from the career and psychosocial aspects of mentoring. This is supported by findings from the same study in which female protégés in homogeneous mentoring relationships reported to a greater extent that their mentor provided role-modeling functions. This idea is also supported by Koberg et al., (1998) who found that protégés in same-gender mentoring relationships reported receiving greater mentoring functions than protégés in cross-gender mentoring relationships.

Fewer studies have investigated the influence of racial composition on mentoring quality. Thomas (1990) examined the influence of race on protégés' developmental experiences. He collected data from 88 Black and 107 White managers and found that racially homogeneous mentoring relationships provided more psychosocial support to protégés than racially diverse mentoring relationships. More recently, Ensher and Murphy (1997) examined the effects of racial composition and perceived similarity on the quality of mentoring relationships. They found that protégés in same-race mentoring relationships reported more career-related support than protégés in racially diverse mentoring relationships.

The studies mentioned above have attempted to outline differences in mentoring quality between protégés in demographically homogeneous and heterogeneous mentoring relationships. However, a more in-depth examination of the effects of diversity on mentoring functions and outcomes requires consideration of the mechanisms through which these effects are borne out. A number of researchers have suggested that diversity influences mentoring relationships through its effects on the interpersonal comfort that exists between a mentor and protégé (e.g., Allen et al., 2002).

Ragins (1997) introduced the concept of interpersonal comfort in her treatment of diversified mentoring relationships in organizations. She defines diversified mentoring relationships as those composed of mentors and protégés who differ in group membership associated with power differences in organizations (e.g., race, ethnicity, gender, class, disability, sexual orientation). These power differences limit the interpersonal similarity between mentors and protégés. This represents a major barrier to the development of diversified mentoring relationships because shared identities and interpersonal similarity

are strong determinants of the degree of interpersonal comfort that is experienced between individuals (Ragins, 1997). For this reason, individuals in mentoring relationships with similar others are likely to feel more comfortable and develop closer bonds. In addition, Thomas (1990) observes that racial and sexual taboos may lead protégés and mentors in diverse mentoring relationships to experience less interpersonal comfort and more constrained social interactions, thereby hindering the development of cross-race and cross-gender mentoring relationships.

Allen et al. (2002) investigated the role of interpersonal comfort in mentoring relationships. Their research examined comfort as a potential mediator of the relationship between gender similarity and mentoring quality. Using a sample of employees from a southeastern healthcare organization, the researchers found that as hypothesized, protégés in cross-gender mentoring relationships reported less interpersonal comfort than protégés in same-sex mentoring relationships. Also as hypothesized, interpersonal comfort fully mediated the relationship between gender similarity and mentoring quality. Their findings provide support for Ragins' (1997) theory regarding diversified mentorships. Specifically, the findings suggest that individuals in homogeneous mentoring relationships benefit from an increased comfort level with their mentors, which translates into greater mentoring quality. Similar findings should be expected regarding racial diversity in mentoring relationships. Specifically, individuals in same-race mentoring relationships should experience a greater sense of identification with their mentor, which should result in greater interpersonal comfort and ultimately, greater mentoring received.

*Hypothesis 2:* There will be a positive relationship between gender similarity and interpersonal comfort between supervisors and subordinates.



*Hypothesis 3:* There will be a positive relationship between racial similarity and interpersonal comfort between supervisors and subordinates.

*Hypothesis 4:* There will be a positive relationship between interpersonal comfort and the supervisory mentoring received by subordinates.

*Hypothesis 5:* Interpersonal comfort will mediate the relationship between gender similarity and the supervisory mentoring received by subordinates.

*Hypothesis 6:* Interpersonal comfort will mediate the relationship between racial similarity and the supervisory mentoring received by subordinates.

### *Outcomes of Successful Mentoring Relationships*

*Job satisfaction.* Job satisfaction is one of the most frequently cited subjective outcomes of organizational mentoring (e.g., Chao, 1997; Koberg et al., 1994). Koberg et al. investigated job satisfaction as an outcome of protégé mentoring in a hospital setting. The authors found that as expected, mentoring was associated with increased job satisfaction among protégés. With regards to supervisory mentoring, Loviscky (1996) found relationships between supervisory behaviors towards subordinates and the level of job satisfaction among subordinates. Specifically, he found that subordinates who reported receiving greater amounts of sponsorship from their supervisor, also had higher levels of general job satisfaction.

As indicated, the relationship between employees' developmental opportunities and subsequent job satisfaction has been well established. However, few studies have considered the impact of employee development and mentoring on specific facets of job satisfaction. The present study attempts to gain deeper insight into the relationship between mentoring and job satisfaction by considering the impact of supervisory mentoring on facet-level indicators of job satisfaction. The facets that are considered include satisfaction with advancement, and satisfaction with the supervisor's human

relations and technical skills. These facets were chosen because they appear to be most relevant to the extent to which employees' receive developmental attention from their supervisors.

Satisfaction with advancement refers to how satisfied an employee is with the opportunities that exist for advancement. Mentoring provides employees with guidance and challenges that increase skill sets and visibility in the organization. For this reason, it is likely that individuals who receive greater levels of supervisory mentoring will also be more satisfied with the opportunities for advancement.

Satisfaction with supervision (human relations) refers to an employees' satisfaction with the way the supervisor treats employees. Satisfaction with supervision (technical) refers to an employees' confidence in the technical competence of the supervisor. Mentoring relationships are characterized by the development of friendship, trust, and respect between the mentor and the protégé. As such, employees who receive greater levels of mentoring from the supervisor are more likely to form a personal bond with the supervisor and more likely to be satisfied with the way they are treated by the supervisor. Satisfaction with the supervisors' technical competence should also be positively impacted by supervisory mentoring because in providing coaching and job-related guidance, the supervisor has an opportunity to display his/her level of expertise.

*Satisfaction with growth and development.* In addition to extrinsic factors such as pay, working conditions, and work relationships, many employees in modern organizations desire opportunities for personal growth and development on the job. These opportunities allow employees to develop new skills and remain marketable in an increasingly competitive job market.

As a work construct, satisfaction with growth and development has been described as the extent to which employees are pleased with the opportunities for professional development that they are provided on the job (Loviscky, 1996). Loviscky investigated the antecedents and consequences of satisfaction with growth and development. Through surveys administered to 463 employees in a large southeastern city, he examined attitudes regarding satisfaction with growth and development and general job satisfaction. He also examined hypothesized antecedents (including contextual and individual variables) and consequences of satisfaction with growth and development. The results of this study are significant because they indicate that satisfaction with growth and development contributes uniquely to work-related outcomes such as organizational commitment. In addition, the study identified factors that antecede the development of satisfaction with growth and development in the workplace. Specifically, Loviscky found that satisfaction with growth and development was significantly impacted by perceived organizational support, job variety, and growth opportunities provided by the supervisor, whereas general job satisfaction was significantly impacted by the amount of sponsorship and feedback provided by supervisors.

*Hypothesis 7:* There will be a positive relationship between supervisory mentoring and each facet of job satisfaction.

#### *Hypothesized Model*

The hypothesized model identifies employee characteristics that influence the extent to which supervisors engage in developmental activities in the form of career and psychosocial mentoring. The career-related mentoring behaviors that are assessed include coaching, role clarification, growth opportunities, sponsorship, and giving

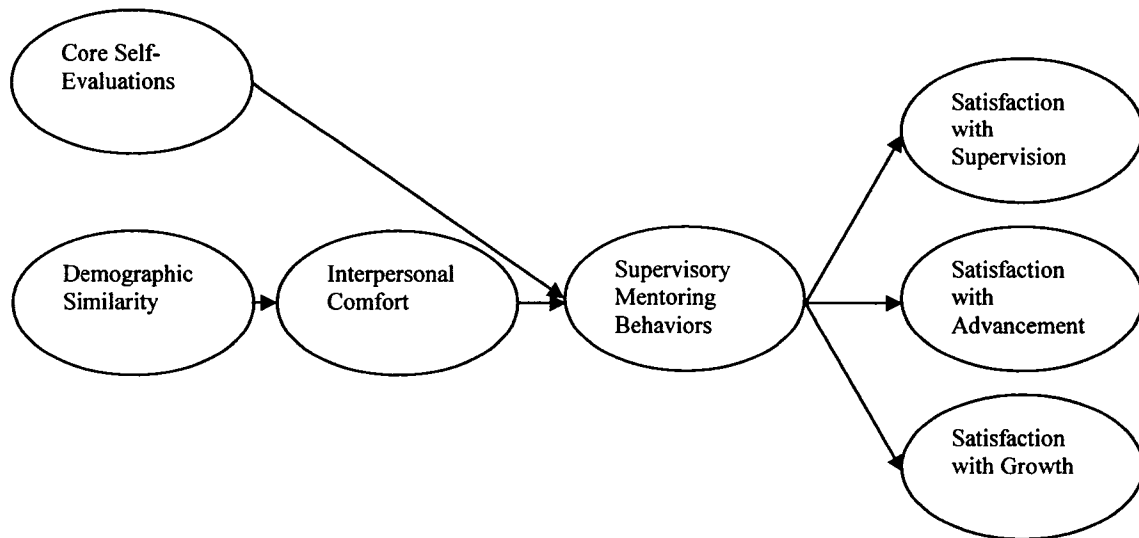
feedback, whereas the psychosocial mentoring behaviors include friendship, role modeling, and counseling.

Figure 1 displays a general form of the hypothesized model that was analyzed in this research study. As illustrated, subordinates' core self-evaluations were expected to positively influence the extent to which they reported receiving supervisory mentoring. In addition, the gender and racial similarity of subordinates with their supervisor was expected to indirectly influence supervisory mentoring. Specifically, racial and gender similarity were expected to have positive effects on supervisory mentoring indirectly through their positive effects on interpersonal comfort.

Finally, the extent to which subordinates reported receiving supervisory mentoring behaviors was expected to have positive effects on the development of satisfaction with advancement, satisfaction with the supervisor (human relations and technical) and satisfaction with growth and development among subordinates.

The current study contributes to the empirical literature in a number of ways. First, it investigates mentoring within the context of supervisor-subordinate relationships. As mentioned earlier, supervisors have received limited attention in the mentoring literature despite their direct and day-to-day impact on employee development. The study also extends the literature on interpersonal comfort in mentoring relationships by including racial similarity as a predictor of interpersonal comfort. Although it is reasonable to assume that racial similarity will have similar relationships with interpersonal comfort and mentoring as does gender similarity, I am aware of no studies that have investigated this empirically. The proposed study also contributes to the mentoring literature by investigating the correlates of specific supervisory mentoring

behaviors (e.g. coaching, feedback, sponsorship) rather than general mentoring functions (e.g. psychosocial and career-related mentoring), allowing for a more detailed understanding of the developmental mentoring process. Finally, this study contributes to the literature on mentoring and job satisfaction by identifying specific facets of job satisfaction that are impacted by supervisory mentoring behaviors.



*Figure 1.* Hypothesized model.

## METHOD

### *Participants*

Three hundred and twenty-seven employees of a large southeastern city government participated in the study. Of these participants, 67% were the same gender as their supervisor and 65% were of the same race as their supervisor. The average participant was 44 years old, had been employed by the city for 12 years, and worked for the current supervisor for 4 years. See Table 1 for additional demographic information.

### *Measures*

Participants completed a questionnaire containing items relating to supervisory mentoring, core self-evaluations, and demographic characteristics. The questionnaire is presented in Appendix A.

*Mentoring constructs.* Supervisory mentoring behaviors were assessed with a questionnaire consisting of items measuring the following functions: sponsorship, coaching, role clarification, feedback, growth opportunities, friendship, role modeling, and counseling. The five scales reflecting career mentoring functions (i.e. sponsorship, coaching, role clarification, feedback, and growth opportunities) were taken from Loviscky and Dickinson's (1995) Growth and Development Attitude Questionnaire (GDAQ). Items in these scales are rated on a 5-point Likert-type scale with response options ranging from strongly disagree (1) to strongly agree (5). GDAQ scales contain 9 items each and were shown by Loviscky (1996) to have good reliability (alpha coefficients of 3-item parcels ranged from .62 to .90). The three scales reflecting psychosocial mentoring were adapted from Ragins and McFarlin's (1990) Mentor Role

Table 1

*Participant Demographic Data*

Gender	Percentage	Race	Percentage
Female	59.86	American Indian	0.69
Male	40.14	Asian Indian	0.35
		Asian	0.35
		Black/African	44.29
		American	
		Hispanic/Latino	1.04
		White	51.90
		Other	1.38
Type of Position	Percentage	Highest Level of Education	Percentage
Operations	16.26	Some high school	1.04
Professional	31.83	High school diploma	7.96
Senior Management	2.77	Some college	21.45
Law	8.30	2-year college degree	12.80
Executive	2.08	4-year college degree	31.83
IT	6.23	Masters degree	17.65
Constitutional	0.35	Ph.D	0.35
Officer			
Other	26.64	Other advanced degree	4.5
Supervisor Gender	Percentage	Supervisor Race	Percentage
Female	43.25	American Indian	1.04
Male	56.75	Asian	0.69
		Black/African	27.34
		American	
		Hispanic/Latino	2.08
		White	67.82
		Other	1.04

*Note.*  $N = 327$ .



Instrument (MRI). Items in these scales consist of three items and are rated on a 5-point Likert-type scale with response options ranging from strongly disagree (1) to strongly agree (5). For this study, MRI items are reworded to refer specifically to supervisors rather than mentors. Ragins and McFarlin reported coefficient alpha estimates for the MRI scales that ranged from .63 to .91.

*Core self-evaluations.* Core self-evaluations were measured with the Core Self-Evaluations Scale (CSES) developed by Judge et al. (2003). This scale consists of 12 items rated on a 5-point Likert-type scale. Judge et al. reported alpha coefficients for the CSES that ranged from .81 to .85 over six administrations of the measure.

*Interpersonal comfort.* Interpersonal comfort was assessed with a three-item measure developed by Allen et al. (2002). The three items assess the extent to which protégés are interpersonally comfortable with their mentor and item ratings are on a 5-point Likert-type scale with higher scores indicating greater interpersonal comfort (for the present study, scale items are reworded to refer to supervisors rather than mentors). Allen et al. reported a coefficient alpha of .90 for the measure.

*Job satisfaction.* The job satisfaction scale was developed using items from the long-form of the Minnesota Satisfaction Questionnaire (Weiss, Dawis, England, & Lofquist, 1967). This 100-item measure assesses 20 distinct facets of job satisfaction and also includes a measure of general job satisfaction. The measure used in the present study contains 32 items that measure 3 job satisfaction facets (advancement, supervision-human relations, and supervision-technical) and general job satisfaction. Weiss et al. reported reliability coefficients of .93 for advancement, .89 for supervision-human relations, and .86 for supervision-technical.

*Satisfaction with growth and development.* Satisfaction with growth and development was assessed using a scale developed by Loviscky and Dickinson (1995). This scale consists of 13 items and asks protégés about the extent to which they are pleased with the on-the-job opportunities to develop work-related skills. Loviscky (1996) reported coefficient alphas for 3-item parcels ranging from .79 to .85.

*Demographic similarity.* Numeric codes were used to indicate whether the supervisor-subordinate dyad was homogeneous or heterogeneous with respect to gender and race. For both race and gender, homogeneous dyads received a coded value of one, and heterogeneous dyads received a coded value of 2.

#### *Procedure*

Participants were administered the questionnaires in group settings during Information Technology and Human Resources training classes. At the beginning of these classes, the questionnaire was distributed and participants were given a brief description of the project and its purpose. Participants were assured that the project was not affiliated with or sponsored by their organization and as such their responses would remain completely anonymous and hold no bearing on their employment status. Participants were also assured that their participation in the study was optional and that results would be presented in aggregate form. Those who chose to complete the questionnaire were asked to respond to questions based on their current position and supervisor.

#### *Data Analysis*

The means, standard deviations, and correlations among the measured variables are reported in Table 2.

Table 2

*Scale Means, Standard Deviations, and Inter-correlations*

SCALE	MEAN	SDEV	1	2	3	4	5	6	7	8
1. GEN	1.32	0.47	1.00							
2. RAC	1.36	0.48	0.09	1.00						
3. CS1	3.88	0.67	0.00	-0.11	1.00					
4. CS2	3.89	0.71	-0.01	-0.08	0.60	1.00				
5. CS3	3.78	0.73	0.06	-0.05	0.64	0.59	1.00			
6. COM	3.45	1.08	-0.13	-0.16	0.09	0.06	0.18	1.00		
7. CO1	2.85	1.04	-0.20	-0.12	-0.05	-0.02	0.05	0.57	1.00	
8. CO2	2.98	1.05	-0.14	-0.11	-0.08	-0.01	0.08	0.65	0.92	1.00
9. CO3	2.88	1.05	-0.17	-0.08	-0.14	-0.08	-0.04	0.57	0.91	0.88
10.RC1	3.08	0.96	-0.09	-0.10	-0.02	0.07	0.04	0.49	0.67	0.68
11.RC2	3.03	0.96	-0.10	-0.04	0.00	0.05	0.03	0.49	0.65	0.67
12.RC3	3.03	0.97	-0.14	-0.07	-0.06	0.03	0.00	0.56	0.71	0.73
13.SP1	3.07	1.06	-0.07	-0.11	0.16	0.18	0.15	0.60	0.57	0.59
14.SP2	3.21	1.07	-0.06	-0.10	0.12	0.19	0.15	0.59	0.56	0.58
15.SP3	3.05	1.08	-0.08	-0.13	0.20	0.22	0.17	0.56	0.53	0.53
16.GO1	3.24	0.96	0.02	-0.08	0.12	0.10	0.18	0.58	0.58	0.60
17.GO2	3.25	0.97	-0.07	-0.14	0.13	0.10	0.07	0.54	0.60	0.61
18.GO3	3.37	0.95	0.03	-0.15	0.14	0.12	0.13	0.56	0.56	0.59
19.FB1	3.4	0.97	-0.10	-0.09	0.02	0.08	0.11	0.58	0.58	0.62
20.FB2	3.2	0.99	-0.08	-0.09	-0.03	0.04	0.08	0.52	0.69	0.69
21.FB3	3.37	0.99	-0.10	-0.14	0.03	0.06	0.10	0.56	0.63	0.65
22.FND	3.33	1.13	-0.10	-0.13	0.05	0.06	0.14	0.79	0.60	0.65
23.MOD	2.98	1.18	-0.13	-0.14	0.00	-0.01	0.13	0.72	0.68	0.72
24.CSL	2.77	1.05	-0.12	-0.19	0.00	0.04	0.04	0.67	0.65	0.68
25.GS1	3.62	0.86	-0.02	-0.11	0.21	0.18	0.24	0.38	0.25	0.31
26.GS2	3.63	0.87	0.01	-0.12	0.20	0.12	0.19	0.36	0.24	0.29
27.GS3	3.55	0.83	-0.04	-0.14	0.21	0.18	0.24	0.40	0.35	0.39
28.ADV	2.91	0.95	-0.15	-0.08	0.00	-0.01	0.09	0.38	0.37	0.41
29.SHR	3.29	0.94	-0.10	-0.17	0.05	0.06	0.15	0.76	0.66	0.68
30.SPT	3.27	0.91	-0.09	-0.16	0.08	0.09	0.12	0.68	0.63	0.65

Table 2 continued

SCALE	9	10	11	12	13	14	15	16	17	18	19	20	21
9.CO3	1.00												
10.RC1	0.68	1.00											
11.RC2	0.65	0.86	1.00										
12.RC3	0.70	0.89	0.89	1.00									
13.SP1	0.56	0.59	0.59	0.62	1.00								
14.SP2	0.55	0.59	0.56	0.61	0.92	1.00							
15.SP3	0.53	0.55	0.55	0.58	0.90	0.92	1.00						
16.GO1	0.57	0.57	0.55	0.59	0.77	0.79	0.80	1.00					
17.GO2	0.59	0.63	0.66	0.65	0.80	0.77	0.77	0.83	1.00				
18.GO3	0.54	0.60	0.56	0.59	0.79	0.77	0.76	0.84	0.84	1.00			
19.FB1	0.54	0.59	0.57	0.62	0.65	0.64	0.57	0.60	0.60	0.67	1.00		
20.FB2	0.67	0.69	0.67	0.73	0.64	0.63	0.59	0.64	0.62	0.67	0.81	1.00	
21.FB3	0.58	0.64	0.63	0.68	0.65	0.62	0.59	0.64	0.65	0.68	0.90	0.88	1.00
22.FND	0.61	0.52	0.50	0.59	0.67	0.65	0.64	0.64	0.63	0.70	0.68	0.64	0.65
23.MOD	0.68	0.55	0.55	0.62	0.63	0.60	0.60	0.62	0.63	0.63	0.61	0.65	0.61
24.CSL	0.66	0.65	0.64	0.69	0.64	0.59	0.59	0.58	0.63	0.59	0.58	0.63	0.60
25.JS1	0.47	0.49	0.51	0.52	0.49	0.48	0.47	0.50	0.54	0.52	0.51	0.47	0.54
26.JS2	0.41	0.37	0.31	0.36	0.59	0.60	0.58	0.52	0.49	0.56	0.47	0.46	0.45
27.JS3	0.51	0.42	0.41	0.45	0.56	0.55	0.52	0.55	0.53	0.56	0.54	0.49	0.54
28.GS1	0.25	0.23	0.26	0.27	0.50	0.45	0.47	0.46	0.45	0.46	0.35	0.33	0.36
29.GS2	0.23	0.19	0.25	0.24	0.50	0.50	0.51	0.50	0.46	0.45	0.34	0.31	0.37
30.GS3	0.35	0.28	0.29	0.29	0.53	0.53	0.53	0.55	0.51	0.49	0.36	0.36	0.38
31.ADV	0.35	0.22	0.29	0.32	0.47	0.46	0.46	0.40	0.40	0.31	0.32	0.31	0.32
32.SHR	0.66	0.56	0.56	0.61	0.66	0.63	0.61	0.65	0.63	0.63	0.68	0.65	0.67
33.SPT	0.63	0.58	0.59	0.65	0.63	0.61	0.58	0.60	0.63	0.61	0.65	0.67	0.66

Table 2 continued

SCALE	22	23	24	25	26	27	28	29	30	31	32	33
22.FND	1.00											
23.MOD	0.83	1.00										
24.CSL	0.73	0.81	1.00									
25.JS1	0.60	0.56	0.56	1.00								
26.JS2	0.60	0.53	0.48	0.68	1.00							
27.JS3	0.68	0.61	0.55	0.77	0.71	1.00						
28.GS1	0.44	0.34	0.33	0.55	0.64	0.54	1.00					
29.GS2	0.38	0.31	0.33	0.49	0.63	0.51	0.80	1.00				
30.GS3	0.44	0.39	0.39	0.56	0.66	0.57	0.84	0.84	1.00			
31.ADV	0.36	0.42	0.39	0.43	0.49	0.44	0.50	0.57	0.54	1.00		
32.SHR	0.80	0.80	0.70	0.76	0.65	0.77	0.48	0.42	0.52	0.46	1.00	
33.SPT	0.70	0.72	0.69	0.71	0.58	0.73	0.44	0.43	0.49	0.49	0.90	1.00

*Note.* The following abbreviations were used in this table: GEN = Gender Similarity, RAC = Race Similarity, CS = Core Self-Evaluations, COM = Interpersonal Comfort, CO = Coaching, RC = Role Clarification, SP = Sponsorship, GO = Growth Opportunities, FB = Feedback, FND = Friendship, RM = Role Modeling, CNS = Counseling, GS = Satisfaction with Growth and Development, ADV = Advancement, SHR = Satisfaction with the Supervisor (Human Relations), SPT = Satisfaction with the Supervisor (Technical). Numbers after abbreviations indicate an item parcel. For RAC and GEN, homogeneous dyads were assigned a coded value of 1 and heterogeneous dyads were assigned a coded value of 2.

For each measurement scale, coefficient alphas were calculated and are reported in Table 3 (values ranged from 0.82 to 0.96). These alpha values suggest homogeneous scales and are quite acceptable for the present research. Finally, confirmatory factor analysis and structural equation modeling were conducted using LISREL VIII (Jöreskog & Sörbom, 1996) to evaluate the measurement and structural models. A summary of the LISREL analysis is described below.

*Confirmatory factor analyses.* A confirmatory factor analysis was conducted on all of the items within each scale. These analyses assessed the unidimensionality of each scale for the sample used in the study, and the results were used to construct item parcels.

*Construction of scale parcels.* For each measurement scale, parcels were created using information from the confirmatory factor analysis (cf. Anderson & Gerbing, 1988). The intent was to reduce the number of indicators for each latent variable and make the structural model manageable in its number of observed variables. An assignment algorithm was used to categorize the items with the nine highest factor loadings for each scale into three parcels. The first parcel included the items with the first, sixth, and ninth highest loadings. The second parcel included the items with the second, fifth, and eighth highest factor loadings. The third scale parcel included the items with the third, fourth, and seventh highest factor loadings. Finally, item responses for each parcel were averaged to generate parcel scores, which served as latent variable indicators.

Table 3

*Coefficient Alpha Scale Reliabilities*

Scale	Reliability
Core Self-Evaluations	0.82
Interpersonal Comfort	0.91
Coaching	0.96
Role Clarification	0.94
Sponsorship	0.96
Growth Opportunities	0.94
Feedback	0.95
Friendship	0.93
Role Modeling	0.94
Counseling	0.91
Satisfaction with Growth	0.95
Satisfaction with Advancement	0.93
Satisfaction with Supervisor (HR)	0.90
Satisfaction with Supervisor (Technical)	0.89

*Measurement model analyses.* LISREL VIII (Jöreskog, & Sörbom, 1996) was used to evaluate the measurement model properties of the independent and dependent latent variables in the study. Factor loadings, goodness-of-fit indices, and modification indices were used to evaluate each measurement model. Factor loadings serve as indicators of how well each parcel measures its latent variable. Factor loadings with corresponding *t*-values greater than 2.0 are considered to be statistically significant. Significant *t*-values indicate that estimation of the associated loadings improves the fit of the estimated variance-covariance matrix.

The goodness-of-fit indices that were used to evaluate the overall fit of the measurement model are Bentler and Bonett's (1980) nonnormed fit index (NNFI), Bentler's (1980) comparative fit index (CFI), and Steiger's (1990) root-mean-square error of approximation (RMSEA). The values of NNFI and CFI range from 0 to 1.0. Values of NNFI and CFI exceeding .90 are interpreted conventionally as suggesting a model of good fit. The value of RMSEA reflects the average of discrepancies expected between the model if fitted to population data. Thus, lower values are desirable. A value of RMSEA from .10 to .08 is considered to indicate a model of moderate fit to the available data, less than .08 to .05 a model of good fit, and less than .05 a model of excellent fit. Of the myriad available indexes, these three have been shown to be empirically independent of sample size, quite stable for latent variables with one to five indicators, and sensitive to model misspecifications (Berndt, 1998).

*Structural model analyses.* The structural model was assessed based on the structural coefficients that indicate the relationships between independent and dependent latent variables. Structural coefficients with associated *t*-values that are greater than or



equal to 2.0 indicate a significant relationship between independent and dependent latent variables. Furthermore, the goodness-of-fit indices described previously for the measurement models were also used to evaluate the fit of the structural model.

Modification indices were also examined. Large modification indices suggest parameters to estimate to improve the fit of the model. Each modification index indicates how much the chi-square statistic is expected to decrease if the specified parameter is estimated and the model is reevaluated. However, modifications should be undertaken only when the indices are large, and only when such modifications can be theoretically justified.

#### *Sample Size Requirements*

MacCallum, Browne and Sugawara (1996) have described a procedure for structural equation modeling that uses RMSEA to estimate the sample size needed for a desired level of statistical power. In this approach the null hypothesis ( $H_0$ ) has an associated hypothesized value for RMSEA, say  $E_0$ . If  $H_0$  is false and the alternative hypothesis is correct ( $H_A$ ), the actual value for RMSEA is  $E_A$ . The value of  $E_A$  represents the degree of lack of fit of the specified model in the population. MacCallum et al. (1996) suggest that the difference between  $E_0$  and  $E_A$  reflects the degree to which  $H_0$  is incorrect. In their approach, the required sample size is a function of the degrees of freedom of the hypothesized model, the desired power, the degree to which  $H_0$  is incorrect (i.e., the difference between  $E_0$  and  $E_A$ ), and the defined alpha level.

A SAS program (SAS Institute, 1998) provided by McCallum et al. (1996), was used to determine the sample size required for the present research. Namely, for 35 degrees of freedom for the hypothesized model, an alpha level of .05, power of .80, and a

difference between  $E_0$  and  $E_A$  of .05 (i.e.,  $E_0 = .10$  and  $E_A = .05$ ), the minimum sample size is 126 participants.

Nonetheless, it is important to note that a desirable sample size is not solely a function of the power and effect size. The researcher often requires a much larger sample size to maintain the accuracy of estimates, especially with nonnormal data (MacCullum, et al., 1996; Schumacker & Lomax, 1996).

Several general guidelines have been proposed for sample size by other researchers. Ding, Velicer, and Harlow (1995) propose a sample size of 50 as “very poor”, 100 as “fair”, 200 as “good”, and 500 as “excellent”. Bentler and Chou (1987) and Tanaka (1987) recommend that an adequate sample size could be based on a sample to parameter ratio of approximately 4 or 5 to 1 for normally or elliptically distributed data. For the hypothesized model, 56 parameters were estimated, suggesting a sample size of 224 to 280 participants for normally distributed data. Using these criteria, the current sample size has adequate statistical power to evaluate the hypothesized model.

## RESULTS

Analysis of the hypothesized model was carried out in three stages that included: (1) confirmatory factor analyses; (2) analysis of the independent and dependent variable measurement models; and (3) analysis of the structural model. Results are presented with respect to each of these stages.

### *Confirmatory Factor Analyses*

The results of the confirmatory factor analyses are presented in Appendix B. Seven measurement scales are described in terms of item factor loadings, measurement error variances, and item reliabilities (i.e.,  $R^2$ ). Factor loadings indicate the degree to which items in a scale are related to the construct being measured, and as a general standard or rule of thumb item loadings should be equal to or greater than .40. With the exception of two of the core self-evaluations items, all items had loadings that met this standard of .40.

In addition to assessing the quality of items included in the measurement scales, the confirmatory factor analyses provided information that was used to assign items to latent variable parcels according to the algorithm described in the previous chapter. Following construction, means for each subscale were calculated and served as latent variable indicators.

### *Measurement Model Analyses*

The measurement model analyses assessed the measurement qualities of the parcel indicators for independent and dependent latent variables. Independent latent variables included demographic similarity (race and gender) and core self-evaluations whereas dependent variables included interpersonal comfort, supervisory mentoring

behaviors (coaching, role clarification, sponsorship, feedback, friendship, role modeling, and counseling), and job satisfaction (satisfaction with growth and development, satisfaction with advancement, and satisfaction with the supervisor). Parcels were created for all variables except demographic similarity (which was coded for race and gender), interpersonal comfort, friendship, role modeling, and counseling. The latter four variables were measured with three or five item scales and therefore parcels could not be created. For these scales, single indicator scales were created with the item means, and following the rationale offered by Jöreskog and Sörbom (1996 p. 196) the measurement error variance for each indicator scale was fixed using the scale's observed variance and coefficient alpha.

Appendices C and D display the factor loadings, measurement error variances, and factor correlations for latent variable parcels (see Table C.2 in Appendix C). As indicated, all subscales had significant factor loadings (i.e., *t*-values greater than 2.0) and small measurement error variances (ranging from 0.05 to 0.22).

Correlations among the dependent latent variables ranged from 0.31 to 0.90, and were all statistically significant. As expected, the supervisory mentoring behaviors were highly correlated, and interpersonal comfort was highly correlated with the supervisory mentoring behaviors. The satisfaction outcome variables were moderately correlated (satisfaction with growth and development, satisfaction with advancement, and satisfaction with the supervisor) and no significant correlations were found between the independent latent variables (core self-evaluations, and demographic similarity).

Finally, the goodness of fit indices for both the dependent variable (RMSEA = 0.08, NNFI = 0.94, CFI = 0.96) and independent variable (RMSEA = 0.0, NNFI = 1.0,

CFI = 1.0) measurement models indicated an excellent fit of the models to the observed data.

### *Structural Model Analyses*

The hypothesized structural model was evaluated by examining structural coefficients and goodness-of-fit indices. Structural coefficients indicate the strength of relationship between latent variables, whereas goodness-of-fit indices indicate how well the structural model fits the observed covariance matrix.

The results of the structural model are presented in Tables 4 and 5. Two types of structural coefficients are presented in these tables. Gamma coefficients reflect the predictive relations that the independent latent variables have with the dependent latent variables. Beta coefficients reflect the predictive relations that the dependent latent variables have among themselves.

As hypothesized, demographic similarity (race and gender) significantly impacted the interpersonal comfort that participants had with their supervisors. In particular, participants whose supervisors were of the same race and gender as themselves reported greater levels of interpersonal comfort with the supervisor. In addition, interpersonal comfort positively impacted all of the supervisory mentoring behaviors (coaching, role clarification, sponsorship, feedback, friendship, role modeling, and counseling).

Core self-evaluations positively impacted satisfaction with growth and development. Core self-evaluations also impacted several of the supervisory mentoring behaviors. However, these relationships were not fully consistent with the hypothesis of this study. Specifically, core self-evaluations had an unexpected negative relationship with coaching and a positive relationship with sponsorship. Core self-evaluations did not

Table 4

*Beta Structural Coefficients*

	COM	CO	RC	SP	GO	FB	FND	RMD	CNS	GS	ADV	SHR	SPT
COM	---	---	---	---	---	---	---	---	---	---	---	---	---
CO	0.65*	---	---	---	---	---	---	---	---	---	---	---	---
RC	0.51*	---	---	---	---	---	---	---	---	---	---	---	---
SP	0.62*	---	---	---	---	---	---	---	---	---	---	---	---
GO	0.53*	---	---	---	---	---	---	---	---	---	---	---	---
FB	0.53*	---	---	---	---	---	---	---	---	---	---	---	---
FND	0.91*	---	---	---	---	---	---	---	---	---	---	---	---
RMD	0.88*	---	---	---	---	---	---	---	---	---	---	---	---
CNS	0.73*	---	---	---	---	---	---	---	---	---	---	---	---
GS	---	0.08	-.22*	0.22*	0.32*	0.04	---	---	---	---	---	---	---
ADV	---	0.18*	-.21	0.63*	-.29	0.03	-.27*	0.36*	-.02	---	---	---	---
SHR	---	0.13*	0.01	0.07	-.06	0.14*	0.34*	0.26*	-.07	---	---	---	---
SPT	---	0.07	0.13	0.04	0.00	0.19*	0.13	0.21*	0.05	---	---	---	---

*Note.* \* $p < .05$ .  $N = 327$ . The following abbreviations are used in this table: COM = Interpersonal Comfort, CO = Coaching, RC = Role Clarification, SP = Sponsorship, GO = Growth Opportunities, FB = Feedback, FND = Friendship, RMD = Role Modeling, CNS = Counseling, GS = Satisfaction with Growth and Development, ADV = Satisfaction with Advancement, SHR = Satisfaction with the Supervisor (Human Relations), SPT = Satisfaction with the Supervisor (Technical). Estimates of goodness of fit are: chi square ( $df = 326$ ,  $p < .01$ ) = 829.45, root mean square error of approximation = 0.069, non-normed fit index = 0.94, comparative fit index = 0.95.

Table 5

*Gamma Structural Coefficients*

	CS	RAC	GEN
COM	---	-.35*	-.28*
CO	-.24*	---	---
RC	-.12	---	---
SP	0.25*	---	---
GO	0.14	---	---
FB	-.02	---	---
FND	-.02	---	---
RMD	-.12	---	---
CNS	-.12	---	---
GS	0.21*	---	---
ADV	-.09	---	---
SHR	0.07	---	---
SPT	0.12	---	---

*Note.* \* $p < .05$ .  $N = 327$ . The following abbreviations are used in this table: CS = Core Self-evaluations, RAC = Race Similarity, GEN = Gender Similarity, COM = Interpersonal Comfort, CO = Coaching, RC = Role Clarification, SP = Sponsorship, GO = Growth Opportunities, FB = Feedback, FND = Friendship, RMD = Role Modeling, CNS = Counseling, GS = Satisfaction with Growth and Development, ADV = Satisfaction with Advancement, SHR = Satisfaction with the Supervisor (Human Relations), SPT = Satisfaction with the Supervisor (Technical). For RAC and GEN, homogeneous dyads were assigned a coded value of 1 and heterogeneous dyads were assigned a coded value of 2. Estimates of goodness of fit are: chi square ( $df = 326$ ,  $p < .01$ ) = 864.04, root mean square error of approximation = 0.069, non-normed fit index = 0.94, comparative fit index = 0.95.

significantly impact role clarification, role modeling, counseling, growth opportunities, or friendship.

Several of the supervisory mentoring behaviors impacted satisfaction with growth and development. Findings with regard to sponsorship and growth opportunities were consistent with the hypothesized model in that they had a positive impact on satisfaction with growth and development. However, role clarification negatively impacted satisfaction with growth and development.

Coaching, sponsorship, and role modeling positively impacted satisfaction with advancement opportunities. However, friendship negatively impacted satisfaction with advancement opportunities. No significant relationship was found between satisfaction with advancement and role modeling, growth opportunities, feedback, and counseling.

Findings with regard to satisfaction with the supervisor were mostly consistent with the hypothesis of the study. Feedback and role modeling had positive relationships with satisfaction with both aspects of satisfaction with the supervisor (human relations and technical). Coaching and friendship had significant positive relationships with only the human relations aspect of satisfaction with the supervisor.

Finally, the goodness-of-fit indices suggest a very good fit of the hypothesized structural model to the observed data. The values of these indices were  $RMSEA = 0.07$ ,  $NNFI = 0.94$ ,  $CFI = 0.95$ .



## DISCUSSION

The purpose of this study was to investigate the relationships between employee characteristics, the receipt of supervisory mentoring behaviors, and several facets of job satisfaction. These relationships were investigated within the framework of a structural model that included measurement models for the independent and dependent latent variables and a structural model assessing relationships between independent and dependent latent variables.

In the following discussion, I will describe the structural relationships that were observed and discuss the implications of these findings for future research and practice.

### *Core Self-evaluations*

Core self-evaluations appear to have important relationships with the supervisory mentoring functions. However, the pattern of these relationships was not consistent and raises some interesting questions for future researchers. Specifically, core self-evaluations yielded a significant negative relationship with coaching and nonsignificant relationships with role clarification, feedback, friendship, role modeling and counseling. In looking closely at the pattern of relationships between core self-evaluations and the mentoring behaviors, an explanation may be that those individuals who are more secure and confident in their abilities are also better performers and solicit/require less guidance and support from their supervisors. This being the case, it is logical that the mentoring behaviors for which there was a positive relationship with core self-evaluations were sponsorship and growth opportunities. Although they do not have to devote a great deal of time or developmental support to highly competent performers, supervisors appear to recognize the employees who are able to perform competently with limited supervision

and reward those employees with opportunities for development and more challenging, high profile assignments. This line of reasoning is consistent with LMX theory which states that supervisors have a select group of subordinates (in-group members) to whom they provide challenging, high profile opportunities. Individuals with greater core self-evaluations are likely to be perceived as more competent by their supervisors, and therefore more likely to be identified as in-group members.

In line with the hypotheses of this study, core self-evaluations were positively related to employee satisfaction outcomes. This supports previous studies that have consistently shown strong links between satisfaction and core self-evaluations (e.g. Judge et al., 1997). However, this particular study goes further by identifying the specific type of satisfaction that is related to core self-evaluations, namely satisfaction with growth and development.

#### *Demographic Similarity*

This study supported and extended previous research investigating the relationship between mentoring outcomes and demographic factors. Like Allen et al. (2002), who found a positive relationship between gender similarity and mentoring quality, the present study found that employees of the same gender as their supervisor reported receiving greater levels of mentoring from their supervisor. The study also replicated Allen et al.'s finding in that the positive relationship between gender similarity and mentoring was mediated by interpersonal comfort. This finding has great practical significance for organizations that seek to increase the quality of mentoring among cross-gender mentoring pairs. It suggests that cross-gender mentoring is affected not by gender differences alone, but by the relative lack of interpersonal comfort that is experienced

between individuals of different genders. It may be possible for organizations to alleviate these difficulties by implementing an orientation period during which mentors and protégés become acquainted and develop greater levels of interpersonal comfort. Future researchers should investigate the benefits of such orientation to cross-gender mentoring relationships.

A major contribution of this study to the mentoring literature is extending Allen et al.'s (2002) findings to cross-race mentoring relationships. If protégés in same-gender relationships benefit from greater interpersonal comfort as a result of shared identities with their mentor, then it is reasonable to expect that relative to protégés in cross-race mentoring relationships, employees in same race relationships will experience greater interpersonal comfort with a mentor and will receive greater levels of mentoring. This hypothesis was supported in that employees' who had supervisors of the same race reported feeling greater levels of interpersonal comfort, which in turn was associated with greater levels of all supervisory mentoring behaviors.

Again, the practical significance of these findings is great because they propose a psychological mechanism through which demography influences the supervisor-subordinate relationship as well as the quality of mentoring relationships. It also provides hope for organizational scientists and practitioners in their attempts to understand and remove the barriers to growth and development that exist for women and ethnic minorities in organizations. Rather than focusing on racial or gender differences as being inherently problematic, the findings of this study suggest that the underlying barriers to the development of high quality mentoring for individuals in demographically diverse relationships are the lack of shared identity and interpersonal comfort with the mentor. It

is possible therefore that if interpersonal comfort between members of diverse mentorships can be increased, then it is likely that protégés in demographically diverse mentoring relationships will experience the same high quality mentoring that their counterparts experience in homogeneous mentoring relationships.

### *Supervisory Mentoring Behaviors*

Unlike most previous studies that have defined the mentoring construct in very general terms (i.e. psychosocial and career-related mentoring), the present study defines mentoring in terms of very specific behaviors (coaching, role clarification, sponsorship, provision of growth opportunities, friendship, role modeling, and counseling). Each specific behavior can be categorized in terms of serving a psychosocial or career-related function however, for the purpose of this study they are defined as separate independent constructs.

As discussed previously, individuals with higher core self-evaluations tended to report receiving less coaching, role clarification, counseling, and role modeling, suggesting that supervisors devote greater resources to employees who are most in need of developmental support. This contradicts the findings of previous researchers (e.g., Turban & Doherty, 1994; Hezlett, 2003) who found positive relationships between the core self-evaluations traits and the receipt of mentoring. These differences in outcomes between the present study and previous studies may be explained by differences between the nature of traditional mentoring and supervisor-subordinate relationships. For example, supervisors may view employee performance levels as being a reflection of their competence and as such have more of an incentive to devote developmental resources to poorer performers. In addition, there may be instances where subordinate

performance levels (directly or indirectly) impact supervisory rewards, again giving supervisors greater incentive to focus on developing poorer performers. Traditional mentors can be much more selective with regard to whom they devote developmental resources because these mentors are not directly responsible for employee performance levels.

#### *Subordinate Satisfaction Outcomes*

A number of supervisory mentoring outcomes were assessed in the present model, including satisfaction with growth and development, satisfaction with advancement, and satisfaction with the supervisor in human relations skills and technical competence. Findings provided support for the role of supervisors in the development of employee satisfaction.

As hypothesized, sponsorship and growth opportunities provided by the supervisor positively impacted employee satisfaction with growth and development. However, not all significant findings with respect to this outcome were in the anticipated direction. Interestingly, the supervisory behavior of role clarification had a negative impact on employee satisfaction with growth and development. It is possible that employees who seek out or require greater levels of role clarification are those who are not as confident or as effective in their job roles. As such they may not receive as many opportunities for growth and development as their more role proficient counterparts. This explanation is supported by the fact that there was a negative (although not significant) relationship between core self-evaluations and role clarification, indicating that the less confident performers received more role clarification from the supervisor.

Also as hypothesized, employee satisfaction with the supervisor was positively impacted by coaching from the supervisor, feedback from the supervisor, friendship with the supervisor, and role modeling provided by the supervisor.

### *Limitations of the Findings*

This study contributed to the body of literature on mentoring by identifying a number of factors that influence and are influenced by supervisory mentoring. However, there are some limitations to the design of the study that must be considered and should be addressed in future research. Addressing these limitations will lead to an even greater understanding and confidence in the validity and generalizability of the present findings.

The research relied on subordinate reports of supervisory mentoring and as such was an investigation of subordinate perceptions. An even more interesting and informative design would have collected similar information from the supervisors' perspective. This additional information would allow for the assessment of convergence between subordinate and supervisory perceptions of supervisory mentoring.

Another limitation of the study lies in the measurement of demographic similarity. Supervisor-subordinate dyads were coded based on whether or not they were the same gender (for gender similarity) and same race (for race similarity). Although this assessment was adequate for the question under investigation, greater insight may be obtained in the future by looking at more specific combinations of gender and ethnicity. Based on the findings of this study we know that homogeneous dyads (with respect to gender and race) experience greater levels of interpersonal comfort. Delving deeper, it is possible that among the heterogeneous dyads there are also differences in interpersonal comfort and mentoring outcomes. For example, cultural factors may lead males to

experience greater discomfort in a subordinate role to a female than females who are in a subordinate role to a male. As such, female subordinate-male supervisor mentoring dyads, although characterized by less interpersonal comfort than gender similar dyads, may experience greater interpersonal comfort than male subordinate-female supervisor mentoring dyads. Similarly, there may be specific race combinations that are characterized by greater levels of interpersonal comfort than others. For example, it would be interesting to look at differences between the following dyadic combinations: minority subordinate-majority supervisor and majority subordinate-minority supervisor. Finally, it would be interesting to investigate the interactive effects of gender and race on interpersonal comfort and mentoring outcomes.

### *Conclusions*

Interest in mentoring is likely to persist given the increasing emphasis on human resource development as a means through which to foster strategic advantage in organizations. As a human resource strategy, mentoring provides a cost-effective means through which organizations can continuously develop talent from within. Although traditional (informal) mentoring processes will continue to yield positive outcomes for individuals and organizations, modern work realities require that organizational scientists and practitioners investigate alternative forms of mentoring.

In identifying some correlates of supervisory mentoring, this study makes a number of meaningful contributions to the organizational sciences. From a scientific perspective, it represents a much more thorough and detailed investigation of the mentoring construct than has been conducted in the past. In identifying important antecedents and consequences of mentoring, previous researchers have operationalized

the construct in very general terms. This study operationalizes mentoring in terms of a set of specific and distinct behaviors. These behaviors are investigated independently with regards to their relationship with several constructs in a structural model, allowing for a more detailed understanding of the mentoring process. From a practical perspective, linking antecedents and outcomes to specific behaviors gives more detailed guidance to supervisors as mentors in their attempts to positively influence subordinate outcomes.

Another important contribution of this study is in the extension of Allen et al's (2002) work on interpersonal comfort in mentoring relationships. In addition to replicating Allen et al's finding of a mediating effect of interpersonal comfort on the relationship between gender similarity and mentoring, this study found that the same mechanism (i.e. interpersonal comfort) served to mediate the relationship between race similarity and mentoring. As discussed previously, the implications of these findings for the organizational sciences are significant because they suggest that demographic differences are not necessarily inherent barriers to the formation of developmental relationships in the workplace. It may be possible to improve the developmental outcomes of individuals in demographically diverse mentoring relationships by focusing on increasing the interpersonal comfort levels experienced between members of diverse mentoring dyads. This would serve as an interesting and significant area for future research.

Finally, this study contributes to the literature by addressing mentoring within the context of supervisor-subordinate relationships. As mentioned previously, modern work realities have increased the need to identify and investigate alternate forms of mentoring



that address the needs of women and minorities and provide continuous developmental opportunities for all employees, not just a “chosen few”. Although there will almost certainly be differences in the extent to which supervisors provide mentoring to individual subordinates, supervisors can be encouraged to engage in developmental behaviors with employees in their span of control. Future studies should further investigate supervisory mentoring as well as other non-traditional forms of mentoring (e.g. peer mentoring) that may contribute the continuous growth and development of organizational human resources.

## REFERENCES

- Accountemps (1996). Speaking words of wisdom. *Newsbreak*, 3. Available: [www.relojournal.com/nbarchive/nb56.htm](http://www.relojournal.com/nbarchive/nb56.htm).
- Allen, T. D., Day, R., & Lentz, E. (2002). *Interpersonal comfort in mentorships: A mediating mechanism*. Paper presented at the 17<sup>th</sup> Annual Conference of the Society for Industrial and Organizational Psychology, Toronto.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103, 411-42.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37, 122-147.
- Bentler, P. M. (1980). Multivariate analysis with latent variables: Causal modeling. *Annual Review of Psychology*, 31, 419-456.
- Bentler, P. M., & Bonnett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88, 588-606.
- Bentler, P. M., & Chou, C. (1987). Practical issues in structural modeling. *Sociological Methods and Research*, 16, 78-117.
- Berndt, A. E. (1998). *The influence of model features on goodness-of-fit indices: Choosing indices to evaluate your model*. Unpublished doctoral dissertation, Old Dominion University, Norfolk, VA.
- Burke, R. J., McKeen, C. A., & McKenna, C. (1990). Sex differences and cross-sex effects on mentoring: Some preliminary data. *Psychological Reports*, 67, 1011-1024.

- Chao, G. T. (1997). Mentoring phases and outcomes. *Journal of Vocational Behavior*, 51, 15-28.
- Chao, G. T., Walz, P. M., & Gardner, P. D. (1992). Formal and informal mentorships: A comparison of mentoring functions and contrast with non-mentored counterparts. *Personnel Psychology*, 45, 619-636.
- Chen, G., Gully, S., Whiteman, J., & Kilcullen, R. N. (2000). Examination of relationships among trait-like individual differences, state-like individual differences, and learning performance. *Journal of Applied Psychology*, 85, 835-847.
- Corzine, J., Buntzman, G., & Busch, G. (1994). Mentoring, downsizing, gender and career outcomes. *Journal of Social Behavior and Personality*, 9, 517-528.
- Cummings, T. G., & Worley, C. G. (1997). *Organization development and change* (6<sup>th</sup> ed.). Cincinnati: South-Western College Publishing.
- Dansereau, F., Graen, G., & Haga, W. J. (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organizational Behavior and Human Performance*, 13, 46-78.
- Ding, L., Velicer, W.F., & Harlow, L.L. (1995). Effects of estimation methods, number indicators per factor, and improper solutions on structural equation modeling fit indices. *Structural Equation Modeling: A Multidisciplinary Journal*, 2, 119-144.
- Dockery, K. L., & Sahl, R. J. (1998). Team mentoring boosts employee development. *Workforce*, 77, 31-36.

- Douglas, C. A., & Schoorman, F. D. (1988). *The impact of career and psychosocial mentoring by supervisors and peers*. Paper presented at the 1988 Academy of Management Meetings, Anaheim, CA.
- Dreher, G. F., & Cox, T. H. Jr. (1996). Race, gender, and opportunity: A study of compensation attainment and the establishment of mentoring relationships. *Journal of Applied Psychology, 81*, 297-308.
- Eby, L. T. (1997). Alternative forms of mentoring in changing organizational environments: A conceptual expansion of the mentoring literature. *Journal of Vocational Behavior, 51*, 125-144.
- Eden, D. (1996). *From self-efficacy to means efficacy: Internal and external sources of general self-efficacy*. Paper presented at the annual meeting of the Academy of Management, Cincinnati, OH.
- Ensher, E. A., & Murphy, S. E. (1997). Effects of race, gender, perceived similarity, and contact on mentor relationships. *Journal of Vocational Behavior, 50*, 460-481.
- Erez, A., & Judge, T. A. (2001). Relationship of core self-evaluations to goal-setting, motivation, and performance. *Journal of Applied Psychology, 86*, 1270-1279.
- Fagenson-Eland, E. A., Marks, M. A., & Amendola, K. L. (1997). Perceptions of mentoring relationships. *Journal of Vocational Behavior, 51*, 29-42.
- Gist, M., & Mitchell, T. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review, 17*, 183-211.
- Green, S., & Bauer, T. (1995). Supervisory mentoring by advisers: Relationships with doctoral student potential, productivity, and commitment. *Personnel Psychology, 48*, 537-561.

- Hegstad, C. D. (2002). *Development and maintenance of exemplary formal mentoring programs in Fortune 500 companies*. Unpublished dissertation, University of Illinois, Urbana-Champaign.
- Hezlett, S. A. (2003). *Who receives mentoring? A meta-analysis of employee demographic, career history, and individual differences correlates*. Unpublished dissertation, University of Minnesota.
- Hunt, D. M., & Michael, C. (1983). Mentorship: A career training and development toll. *Academy of Management Review*, 8, 475-485.
- Jöreskog, K.G., & Sörbom, D. (1996). *LISREL 8: User's reference guide*. Chicago: Scientific Software International.
- Judge, T. A. & Bono, J. E. (2001). Relationship of core self-evaluations traits – self-esteem, generalized self-efficacy, locus of control, and emotional stability – with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, 86, 80-92.
- Judge, T. A., Bono, J. E., & Locke, E. A. (2000). Personality and job satisfaction: The mediating role of job characteristics. *Journal of Applied Psychology*, 85, 237-249.
- Judge, T. A., Erez, A., Bono, J. E., & Thoreson, C. J. (2003). The core self-evaluations scale: Development of a measure. *Personnel Psychology*, 56, 303-331.
- Judge, T. A., Locke, E. A., & Durham, C. C. (1997). The dispositional causes of job satisfaction: A core evaluations approach. *Research in Organizational Behavior*, 19, 151-188.

- Judge, T. A., Locke, E. A., Durham, C. C., & Kluger, A. N. (1998). Dispositional effects on job and life satisfaction: The role of core evaluations. *Journal of Applied Psychology, 84*, 107-122.
- Koberg, C. S., Boss, R. W., Chappell, D., & Ringer, R. C. (1994). Correlates and consequences of protégé mentoring in a large hospital. *Group & Organization Management, 19*, 219-239.
- Koberg, C. S., Boss, R. W., & Goodman, E. (1998). Factors and outcomes associated with mentoring among health-care professionals. *Journal of Vocational Behavior, 53*, 58-72.
- Konieczo, J. (2001). Guiding lights: The art of mentoring in the information professionals community. Available: [www.lexis-nexis.com/infopro/column/2001](http://www.lexis-nexis.com/infopro/column/2001)
- Kram, K. E. (1983). Phases of the mentor relationship. *Academy of Management Journal, 26*, 608-625.
- Kram, K. E. (1985). *Mentoring at work: Developmental relationships in organization life*. Glenview, IL: Scott Foresman.
- Loviscky, G. E. (1996). *A structural model of antecedents and consequences of satisfaction with growth and development*. Unpublished master's thesis, Old Dominion University, Norfolk, VA.
- Loviscky, G. E., & Dickinson, T. L. (1995). *On-the-job supervisory contributions to employee development*. Unpublished manuscript, Old Dominion University, Norfolk, VA.

- MacCallum, R. C., Browne, M. W., & Sugawara, H.M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods, 1*(2), 130-149.
- Mullen, E. J. (1994). Framing the mentoring relationship as an information exchange. *Human Resource Management Review, 4*, 257-281.
- Noe, R. A. (1988). An investigation of the determinants of successful assigned mentoring relationships. *Personnel Psychology, 41*, 457-479.
- Ostroff, C., & Kozlowski, S. W. (1993). The role of mentoring in the information gathering processes of newcomers during early organizational socialization. *Journal of Vocational Behavior, 42*, 170-183.
- Phares, E. J. (1976). *Locus of control in personality*. Morristown, NJ: General Learning Press.
- Ragins, B. R. (1997). Antecedents of diversified mentoring relationships. *Journal of Vocational Behavior, 51*, 90-109.
- Ragins, B. R. (1997). Diversified mentoring relationships in organizations: A power perspective. *Academy of Management Review, 22*, 482-521.
- Ragins, B. R., & Cotton, J. (1999). Mentor functions and outcomes: A comparison of men and women in formal and informal mentoring relationships. *Journal of Applied Psychology, 84*, 529-550.
- Ragins, B. R., Cotton, J., & Miller, J. S. (2000). Marginal mentoring: The effects of type of mentor quality of relations, and program design on work and career attitudes. *Academy of Management Journal, 43*, 1174-1194.

- Ragins, B. R., & McFarlin, D. B. (1990). Perceptions of mentor roles in cross-gender mentoring relationships. *Journal of Vocational Behavior*, 37, 321-329.
- Rotter, J. B. (1954). *Social learning and clinical psychology*. New York: Prentice-Hall.
- Royer, J. M. (2001). *Mentoring in an on-the-job training context*. Unpublished dissertation, Florida International University, Miami, FL.
- Russell, J. E. A., & Adams, D. M. (1997). The nature of mentoring in organizations: An introduction to the special issues on mentoring and organizations. *Journal of Vocational Behavior*, 51(1), 1-14.
- SAS Institute. (1998). *Statistics users guide: Version 7*. Cary, NC: SAS Publishing.
- Scandura, T. A., & Schriesheim, C. A. (1994). Leader-member exchange and supervisor career mentoring as complementary constructs in leadership research. *Academy of Management Journal*, 37, 1588-1602.
- Schumacker, R. & Lomax, R. (1996). *A Beginner's Guide to Structural Equation Modeling*. Lawrence Erlbaum.
- Seibert, S. E., Kraimer, M. L., & Crant, J. M. (2001). What do proactive people do? A longitudinal model linking proactive personality and career success. *Personnel Psychology*, 54, 845-875.
- Sosik, J. J., & Godshalk, V. M. (2004). *Effects of formality, gender, and supervisory status in mentoring relationships*. Paper presented at the 2004 Society for Industrial-Organizational Psychology Conference, Chicago, IL.
- Spector, P. E. (1982). Behavior in organizations as a function of employee's locus of control. *Psychological Bulletin*, 91, 482-497.



- Spector, P. E. (1988). Development of the Work Locus of Control Scale. *Journal of Occupational Psychology*, 61, 335-340.
- Steiger, J. M. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research*, 25, 173-180.
- Tanaka, J.S. (1987). "How big is big enough?": Sample size and goodness of fit in structural equation models with latent variables. *Child Development*, 58, 134-146.
- Thibodeaux, H. F., & Lowe, R. H. (1996). Convergence of leader-member-exchange and mentoring: An investigation of social influence patterns. *Journal of Social Behavior and Personality*, 11, 97-114.
- Thomas, D. A. (1990). The impact of race on managers' experiences of developmental relationships (mentoring and sponsorship): An intra-organizational study. *Journal of Organizational Behavior*, 11, 479-492.
- Turban, D. B., & Dougherty, T. W. (1994). Role of protégé personality in receipt of mentoring and career success. *Academy of Management Journal*, 37, 688-702.
- Weiss, D. J., Dawis, R. V., England, G. W., & Lofquist, L. H. (1967). *Manual for the Minnesota Satisfaction Questionnaire*. Industrial Relations Center, University of Minnesota.
- Whitely, W., Dougherty, T., & Dreher, G. (1991). Relationship of career mentoring and socioeconomic origin to managers' and professionals' early career progress. *Academy of Management Review*, 34, 331-351.
- Wickman, F. (1997). *Mentoring*. New York: Irwin Professional Group.

Wilson, J. A., & Elman, N. S. (1996). Organizational benefits of mentoring. In G. R. Ferris & M. R. Buckley (Eds.), *Human resources management: Perspectives, context, functions, and outcomes* (pp. 217-233). Englewood Cliffs, NJ: Prentice-Hall.

APPENDIX A  
EMPLOYEE QUESTIONNAIRE

### Project Description

Mentors are older employees who give career support to younger employees. Immediate supervisors can help the careers of employees by serving as mentors. As such, they provide employees with the opportunity to learn new skills and develop abilities that will help their career success. This project studies some of the things that can affect whether or not supervisors become mentors. You are asked to complete a set of surveys that ask you about yourself and your supervisor.

You do not have to participate in this study. It is optional. If you do participate, you will not be asked to provide your name or the name of your supervisor. When I report the results of this study, only average scores across participants will be presented. No single individual's answers will be reported! Results of this study will be released to you upon request. The results will also be reported to the MACE (your City newsletter).

The following questionnaire contains statements, and you are asked to rate the extent to which you "agree" or "disagree" with each statement. The following five alternatives are provided as a guide on which to base your ratings:

SD = strongly disagree  
D = disagree  
N = neither agree nor disagree  
A = agree  
SA = strongly agree

**\*\*Please respond to ALL statements by circling ONE of the alternatives\*\***

### Core Self-Evaluations

**SD = strongly disagree**  
**D = disagree**  
**N = neither agree nor disagree**  
**A = agree**  
**SA = strongly agree**

---

**Core self-evaluations** refer to your basic, fundamental evaluations of yourself.

- |                                                                       |                     |
|-----------------------------------------------------------------------|---------------------|
| 1. I am confident I get the success I deserve in life.                | SD---D---N---A---SA |
| 2. Sometimes I feel depressed.                                        | SD---D---N---A---SA |
| 3. When I try, I generally succeed.                                   | SD---D---N---A---SA |
| 4. Sometimes when I fail I feel worthless.                            | SD---D---N---A---SA |
| 5. I complete tasks successfully.                                     | SD---D---N---A---SA |
| 6. Sometimes, I do not feel in control of my work.                    | SD---D---N---A---SA |
| 7. Overall, I am satisfied with myself.                               | SD---D---N---A---SA |
| 8. I am filled with doubts about my competence.                       | SD---D---N---A---SA |
| 9. I determine what will happen in my life.                           | SD---D---N---A---SA |
| 10. I do not feel in control of my success in my career.              | SD---D---N---A---SA |
| 11. I am capable of coping with most of my problems.                  | SD---D---N---A---SA |
| 12. There are times when things look pretty bleak and hopeless to me. | SD---D---N---A---SA |

**SD = strongly disagree**  
**D = disagree**  
**N = neither agree nor disagree**  
**A = agree**  
**SA = strongly agree**

---

### Interpersonal Comfort

**INTERPERSONAL COMFORT** refers to the degree of comfort that exists between you and your supervisor.

- |                                                                              |                     |
|------------------------------------------------------------------------------|---------------------|
| 13. I feel that I can freely talk to my supervisor about anything.           | SD---D---N---A---SA |
| 14. I completely trust my supervisor.                                        | SD---D---N---A---SA |
| 15. There is a great deal of open communication between my supervisor and I. | SD---D---N---A---SA |

### Supervisory Mentoring

**COACHING** refers to your supervisor teaching you ways to do your job well and become better at your tasks.

- |                                                                                                                              |                     |
|------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 16. My supervisor helps me finish assignments and tasks that are difficult to complete alone.                                | SD---D---N---A---SA |
| 17. My supervisor teaches me how to perform tasks more effectively.                                                          | SD---D---N---A---SA |
| 18. My supervisor helps me complete tasks to make sure that I am doing them properly.                                        | SD---D---N---A---SA |
| 19. My supervisor shares personal experiences that help me perform my tasks better.                                          | SD---D---N---A---SA |
| 20. My supervisor walks me through tasks the first few times that I complete them before I am required to do them on my own. | SD---D---N---A---SA |
| 21. My supervisor teaches me different ways to do my job.                                                                    | SD---D---N---A---SA |
| 22. My supervisor teaches me specific ways to complete my job more effectively.                                              | SD---D---N---A---SA |
| 23. My supervisor breaks down difficult tasks into a simpler form.                                                           | SD---D---N---A---SA |

## Supervisory Mentoring continued

**SD = strongly disagree**  
**D = disagree**  
**N = neither agree nor disagree**  
**A = agree**  
**SA = strongly agree**

---

24. My supervisor teaches and instructs me how to do new tasks rather than simply telling me to do them. SD----D----N----A----SA

**ROLE CLARIFICATION** refers to attempts by your supervisor to define your job duties and responsibilities, as well as your work relationships with other employees.

25. My supervisor tells me how my tasks relate to those of other workers. SD----D----N----A----SA

26. My supervisor discusses my concerns regarding what is and is not required by my job. SD----D----N----A----SA

27. My supervisor makes sure that I understand my position relative to other workers. SD----D----N----A----SA

28. My supervisor points out differences between my Responsibilities and the responsibilities of other workers. SD----D----N----A----SA

29. My supervisor ensures that other employees are aware of what is and what is not required by my responsibilities. SD----D----N----A----SA

30. My supervisor ensures that I and other employees know what each individual's job is so that all of us can cooperate effectively. SD----D----N----A----SA

31. My supervisor informs me of the purpose behind my tasks so that I may better understand the effects of my job performance. SD----D----N----A----SA

32. My supervisor teaches me how to decide the order of my tasks when my job gets busy. SD----D----N----A----SA

33. My supervisor sets clear, specific goals for me. SD----D----N----A----SA

## Supervisory Mentoring continued

- 1 = strongly disagree**  
**2 = disagree**  
**3 = neither agree nor disagree**  
**4 = agree**  
**5 = strongly agree**
- 

**SPONSORSHIP** refers to your supervisor supporting your career advancement for new positions.

- |                                                                                                        |                     |
|--------------------------------------------------------------------------------------------------------|---------------------|
| 34. My supervisor supports my career by telling other people in the organization about my performance. | SD---D---N---A---SA |
| 35. My supervisor tells other people that I would perform well in other jobs that I want.              | SD---D---N---A---SA |
| 36. My supervisor actively suggests me for positions that I want.                                      | SD---D---N---A---SA |
| 37. My supervisor encourages me to prepare for promotions.                                             | SD---D---N---A---SA |
| 38. My supervisor lets people know what I have done on the job.                                        | SD---D---N---A---SA |
| 39. My supervisor tells people my strengths as an employee.                                            | SD---D---N---A---SA |
| 40. My supervisor informs me of other's opinions of my performance to boost my self-confidence.        | SD---D---N---A---SA |
| 41. My supervisor discusses career possibilities with me.                                              | SD---D---N---A---SA |
| 42. My supervisor informs other people of my career plans.                                             | SD---D---N---A---SA |



## Supervisory Mentoring continued

- 1 = strongly disagree**  
**2 = disagree**  
**3 = neither agree nor disagree**  
**4 = agree**  
**5 = strongly agree**
- 

**GROWTH OPPORTUNITIES** refers to attempts by your supervisor to create or expose you to experiences within your current position that allow you to learn and grow. These opportunities may contribute to your development by supplying you with new technical knowledge or additional work situations.

- |                                                                                                                 |                     |
|-----------------------------------------------------------------------------------------------------------------|---------------------|
| 43. My supervisor publicly supports me to others for work assignments.                                          | SD---D---N---A---SA |
| 44. My supervisor actively suggests me for desirable work assignments.                                          | SD---D---N---A---SA |
| 45. My supervisor assigns me to work that requires personal contact with other supervisors in the organization. | SD---D---N---A---SA |
| 46. My supervisor makes sure that I am given a variety of tasks.                                                | SD---D---N---A---SA |
| 47. My supervisor assigns me tasks that show me different functions of the organization.                        | SD---D---N---A---SA |
| 48. My supervisor assigns me to tasks that make me more qualified to be promoted.                               | SD---D---N---A---SA |
| 49. My supervisor gives me work assignments that allow me to use my responsibility and proficiency.             | SD---D---N---A---SA |
| 50. My supervisor responds to my requests about wanting to learn how to complete different tasks.               | SD---D---N---A---SA |
| 51. My supervisor makes me aware of chances to grow professionally.                                             | SD---D---N---A---SA |

## Supervisory Mentoring continued

- 1 = strongly disagree**  
**2 = disagree**  
**3 = neither agree nor disagree**  
**4 = agree**  
**5 = strongly agree**
- 

**FEEDBACK** refers to the information that is given to you about work performance throughout the year and at the performance review.

- |                                                                                                     |                     |
|-----------------------------------------------------------------------------------------------------|---------------------|
| 52. My supervisor gives me useful information about my performance in my performance reviews.       | SD---D---N---A---SA |
| 53. My supervisor gives me feedback in my performance review that leads to improvements in my work. | SD---D---N---A---SA |
| 54. My supervisor has explained to me the way to meet my performance goals.                         | SD---D---N---A---SA |
| 55. My supervisor gives me performance feedback throughout the year.                                | SD---D---N---A---SA |
| 56. My supervisor gives me mostly positive feedback about my work performance.                      | SD---D---N---A---SA |
| 57. My supervisor shares all appropriate information about my performance with me.                  | SD---D---N---A---SA |
| 58. My supervisor discusses positive and negative aspects of my work performance with me.           | SD---D---N---A---SA |
| 59. My supervisor gives me specific information about my work performance.                          | SD---D---N---A---SA |
| 60. My supervisor gives me direction on the proper ways of doing my work.                           | SD---D---N---A---SA |

## Supervisory Mentoring continued

- 1 = strongly disagree**  
**2 = disagree**  
**3 = neither agree nor disagree**  
**4 = agree**  
**5 = strongly agree**
- 

**FRIENDSHIP** refers to a mutual caring between you and your supervisor that extends beyond the requirements of daily work tasks.

- |                                                       |                     |
|-------------------------------------------------------|---------------------|
| 61. My supervisor is someone I can confide in.        | SD---D---N---A---SA |
| 62. My supervisor provides support and encouragement. | SD---D---N---A---SA |
| 63. My supervisor is someone I can trust.             | SD---D---N---A---SA |

**ROLE MODELING** refers to the extent to which your supervisor demonstrates valued behaviors, attitudes, and/or skills that aid you in achieving competence, confidence, and a clear professional identity.

- |                                                  |                     |
|--------------------------------------------------|---------------------|
| 64. My supervisor serves as a role model for me. | SD---D---N---A---SA |
| 65. My supervisor is someone I identify with.    | SD---D---N---A---SA |
| 66. My supervisor represents who I want to be.   | SD---D---N---A---SA |

**COUNSELING** refers to the extent to which your supervisor provides a helpful and confidential forum for exploring personal and professional dilemmas.

- |                                                                                          |                     |
|------------------------------------------------------------------------------------------|---------------------|
| 67. My supervisor serves as a sounding board for me to develop<br>and understand myself. | SD---D---N---A---SA |
| 68. My supervisor guides my professional development.                                    | SD---D---N---A---SA |
| 69. My supervisor guides my personal development.                                        | SD---D---N---A---SA |

## Job Satisfaction

**SD = strongly disagree**  
**D = disagree**  
**N = neither agree nor disagree**  
**A = agree**  
**SA = strongly agree**

---

**Job satisfaction** refers to the extent to which you are pleased with your job. Please indicate the extent to which you are pleased with your job in terms of the following:

- |                                                                  |                     |
|------------------------------------------------------------------|---------------------|
| 70. being able to keep busy all the time.                        | SD---D---N---A---SA |
| 71. the chance to work alone on the job.                         | SD---D---N---A---SA |
| 72. the chance to do different things from time to time.         | SD---D---N---A---SA |
| 73. the chance to be well known in the community.                | SD---D---N---A---SA |
| 74. the way your supervisor handles employees.                   | SD---D---N---A---SA |
| 75. the ability of your supervisor in making decisions.          | SD---D---N---A---SA |
| 76. being able to do things that don't go against your values.   | SD---D---N---A---SA |
| 77. the way your job allows for steady employment.               | SD---D---N---A---SA |
| 78. the chance to do things for other people.                    | SD---D---N---A---SA |
| 79. the chance to tell people what to do.                        | SD---D---N---A---SA |
| 80. the chance to do something that makes use of your abilities. | SD---D---N---A---SA |
| 81. the way organizational policies are put into practice.       | SD---D---N---A---SA |
| 82. your pay and the amount of work you do.                      | SD---D---N---A---SA |
| 83. the chances for advancement on the job.                      | SD---D---N---A---SA |
| 84. the freedom to use your own judgment.                        | SD---D---N---A---SA |
| 85. the chance to try your own methods of doing the job.         | SD---D---N---A---SA |
| 86. the working conditions.                                      | SD---D---N---A---SA |

## Job Satisfaction continued

**SD = strongly disagree**  
**D = disagree**  
**N = neither agree nor disagree**  
**A = agree**  
**SA = strongly agree**

---

87. the way your co-workers get along with each other.	SD---D---N---A---SA
88. the praise you get for doing a good job.	SD---D---N---A---SA
89. the feeling of achievement you get from the job.	SD---D---N---A---SA
90. the way you and your supervisor understand each other.	SD---D---N---A---SA
91. the opportunities for advancement on the job.	SD---D---N---A---SA
92. the technical "know-how" of your supervisor.	SD---D---N---A---SA
93. the chances of getting ahead on the job.	SD---D---N---A---SA
94. the way your supervisor backs up employees.	SD---D---N---A---SA
95. the way promotions are awarded on your job.	SD---D---N---A---SA
96. the way your supervisor delegates work.	SD---D---N---A---SA
97. the way your supervisor handles employees' complaints.	SD---D---N---A---SA
98. the way your supervisor provides help on hard problems.	SD---D---N---A---SA
99. the personal relationship between your supervisor and employees.	SD---D---N---A---SA
100. your chances for advancement.	SD---D---N---A---SA
101. the way your supervisor trains employees.	SD---D---N---A---SA

### Satisfaction with Growth and Development

**SD = strongly disagree**

**D = disagree**

**N = neither agree nor disagree**

**A = agree**

**SA = strongly agree**

**Satisfaction with Growth and Development** refers to the extent to which you are pleased with the on-the-job chances to develop yourself professionally. Please rate your agreement with the following statements. I am satisfied with:

- |                                                                                |                     |
|--------------------------------------------------------------------------------|---------------------|
| 102. my chance to do new tasks.                                                | SD---D---N---A---SA |
| 103. my opportunity to grow professionally.                                    | SD---D---N---A---SA |
| 104. how much I am given chances to achieve my professional goals.             | SD---D---N---A---SA |
| 105. my chance to gain new skills.                                             | SD---D---N---A---SA |
| 106. how much I am given chances to use my abilities.                          | SD---D---N---A---SA |
| 107. how many of my abilities are being used.                                  | SD---D---N---A---SA |
| 108. my opportunities to try new activities.                                   | SD---D---N---A---SA |
| 109. learning skills that will help my career in the long run.                 | SD---D---N---A---SA |
| 110. learning skills that will help me succeed in this or other organizations. | SD---D---N---A---SA |
| 111. completing tasks that interest me.                                        | SD---D---N---A---SA |
| 112. exposure to new tasks.                                                    | SD---D---N---A---SA |
| 113. being creative in problem solving.                                        | SD---D---N---A---SA |
| 114. using my problem solving skills.                                          | SD---D---N---A---SA |

### Supervisory Relationships

Please circle the option that best describes your relationship with your supervisor.

115. Do you know where you stand with your supervisor....do you usually know how satisfied your supervisor is with what you do?
- a. Rarely      b. Occasionally      c. Sometimes      d. Fairly Often      e. Very Often
116. How well does your supervisor understand your job problems and needs?
- a. Not a Bit      b. A Little      c. A Fair Amount      d. Quite a Bit      e. A Great Deal
117. How well does your supervisor recognize your potential?
- a. Not at all      b. A Little      c. Moderately      d. Mostly      e. Fully
118. Regardless of how much formal authority he/she has built into his/her position, what are the chances that your supervisor would use his/her power to help you solve your problems in your work?
- a. None      b. Small      c. Moderate      d. High      e. Very High
119. Again, regardless of the amount formal authority your supervisor has, what are the chances that he/she would "bail you out" at his/her expense?
- a. None      b. Small      c. Moderate      d. High      e. Very High
120. I have enough confidence in my supervisor that I would defend and justify his/her decision if he/she were not present to do so.
- a. Strongly disagree      b. Disagree      c. Neutral      d. Agree      e. Strongly Agree
121. How would you characterize your working relationship with your supervisor?
- a. Extremely Ineffective      b. Worse than Average      c. Average  
d. Better than Average      e. Extremely Effective

### Participant Information

Please respond by circling the **one** letter that best describes you, or by writing your response in the space provided.

122. I am:     a. Female     b. Male

123. I am:     a. American Indian     b. Asian-Indian     c. Asian  
                  d. Black/African-American     e. Hispanic/Latino     f. White  
                  g. Other (please specify): \_\_\_\_\_

124. My age is: \_\_\_\_\_

125. Number of years employed by my organization: \_\_\_\_\_

126. Number of years in my current position: \_\_\_\_\_

127. Number of years with my current supervisor: \_\_\_\_\_

128. Type of position:

- |                      |                                 |
|----------------------|---------------------------------|
| a. Operations        | b. Management and Professional  |
| c. Senior Management | d. Law                          |
| e. Council Appointee | f. Executive                    |
| g. IT                | h. Constitutional Officer's Pay |
| i. Other             |                                 |

129. What is the highest level of education you have **completed**? (highest level only)

- |                          |                          |
|--------------------------|--------------------------|
| a. Some high school      | b. High school diploma   |
| c. Some college          | d. 2-year college degree |
| e. 4-year college degree | f. Masters degree        |
| g. Ph.D.                 | h. Other advanced degree |

130. My supervisor is:     a. Female     b. Male

131. My supervisor is:     a. American Indian     b. Asian-Indian     c. Asian  
                  d. Black/African-American     e. Hispanic/Latino  
                  f. White     g. Other (please specify): \_\_\_\_\_

132. My supervisor serves as a mentor to me:     a. Yes     b. No

**THANK YOU FOR YOUR PARTICIPATION**



**APPENDIX B**  
**RESULTS OF CONFIRMATORY FACTOR ANALYSES**

Table B.1

*Confirmatory Factor Analysis: Core Self-Evaluations*

Item Number	Factor Loading	Measurement Error Variance	R <sup>2</sup>
1	0.56	0.65	0.32
2	0.37	1.00	0.12
3	0.38	0.46	0.24
4	0.51	0.94	0.22
5	0.40	0.29	0.35
6	0.32	1.12	0.08
7	0.68	0.43	0.52
8	0.57	0.66	0.33
9	0.47	0.66	0.25
10	0.48	0.91	0.20
11	0.56	0.30	0.52
12	0.64	0.84	0.33

*Note.*  $N = 327$ .

Table B.2

*Confirmatory Factor Analysis: Coaching*

Item Number	Factor Loading	Measurement Error Variance	R <sup>2</sup>
36	0.95	0.50	0.64
37	1.04	0.24	0.82
38	0.97	0.42	0.69
39	0.98	0.49	0.66
40	0.96	0.48	0.66
41	0.95	0.31	0.74
42	1.03	0.22	0.82
43	0.98	0.29	0.77
44	1.07	0.37	0.76

*Note.*  $N = 327$ .

Table B.3

*Confirmatory Factor Analysis: Role Clarification*

Item Number	Factor Loading	Measurement Error Variance	R <sup>2</sup>
45	0.84	0.53	0.57
46	0.86	0.46	0.62
47	0.98	0.29	0.77
48	0.88	0.43	0.64
49	0.94	0.42	0.68
50	0.96	0.29	0.76
51	0.95	0.32	0.74
52	0.82	0.51	0.57
53	0.85	0.62	0.53

*Note.*  $N = 327$ .

Table B.4

*Confirmatory Factor Analysis: Sponsorship*

Item Number	Factor Loading	Measurement Error Variance	R <sup>2</sup>
54	1.07	0.37	0.76
55	1.06	0.31	0.78
56	1.05	0.30	0.78
57	1.08	0.44	0.73
58	1.03	0.28	0.79
59	1.02	0.37	0.74
60	0.97	0.48	0.66
61	0.97	0.48	0.67
62	0.90	0.50	0.62

*Note.*  $N = 327$ .

Table B.5

*Confirmatory Factor Analysis: Growth Opportunities*

Item Number	Factor Loading	Measurement Error Variance	R <sup>2</sup>
63	0.87	0.42	0.64
64	0.88	0.45	0.63
65	0.74	0.63	0.46
66	0.81	0.53	0.56
67	0.88	0.39	0.66
68	1.01	0.32	0.76
69	0.90	0.35	0.70
70	0.86	0.44	0.63
71	0.98	0.40	0.70

*Note.*  $N = 327$ .

Table B.6

*Confirmatory Factor Analysis: Feedback*

Item Number	Factor Loading	Measurement Error Variance	R <sup>2</sup>
72	0.96	0.30	0.75
73	0.99	0.35	0.74
74	0.92	0.32	0.73
75	0.92	0.41	0.67
76	0.76	0.48	0.55
77	0.95	0.27	0.77
78	1.00	0.31	0.76
79	0.92	0.28	0.75
80	0.82	0.58	0.54

*Note.*  $N = 327$ .

Table B.7

*Confirmatory Factor Analysis: Satisfaction with Growth and Development*

Item Number	Factor Loading	Measurement Error Variance	R <sup>2</sup>
122	0.71	0.39	0.57
123	0.81	0.43	0.60
124	0.78	0.36	0.63
125	0.78	0.36	0.63
126	0.70	0.37	0.57
127	0.77	0.40	0.60
128	0.81	0.31	0.68
129	0.85	0.25	0.74
130	0.70	0.39	0.56
131	0.58	0.36	0.48
132	0.72	0.31	0.63
133	0.66	0.45	0.49
134	0.65	0.41	0.51

*Note.*  $N = 327$ .



## Appendix C

### RESULTS OF THE MEASUREMENT MODEL FOR DEPENDENT LATENT VARIABLES

Table C.1

*Measurement Model for Dependent Latent Variables*

	Factor Loading													Measurement Error Variance
	IC	CO	RC	SP	GO	FB	FR	RM	CN	GS	AD	SH	ST	
IC	1.00													0.10
CO1		1.00												0.08
CO2		1.00												0.10
CO3		0.98												0.14
RC1			1.00											0.14
RC2			0.99											0.14
RC3			1.06											0.07
SP1				1.00										0.10
SP2				1.01										0.08
SP3				1.01										0.12
GO1					1.00									0.16
GO2					1.01									0.16
GO3					1.01									0.13
FB1						1.00								0.15
FB2						1.01								0.17
FB3						1.08								0.05
FR							1.00							0.09
RM								1.00						0.08
CN									1.00					0.10
GS1										1.00				0.15
GS2										1.02				0.15
GS3										1.01				0.08

Table C.1 continued

	Factor Loading													Measurement Error Variance
	IC	CO	RC	SP	GO	FB	FR	RM	CN	GS	AD	SH	ST	
AD											1.00			0.06
SH												1.00		0.09
ST													1.00	0.09

Table C.2

*Dependent Latent Variable Correlations*

	Factor Correlations												
	IC	CO	RC	SP	GO	FB	FD	RM	CN	GS	AD	SH	ST
IC	1.00												
CO	0.67	1.00											
RC	0.59	0.77	1.00										
SP	0.63	0.61	0.65	1.00									
GO	0.63	0.67	0.69	0.89	1.00								
FB	0.62	0.69	0.73	0.68	0.74	1.00							
FD	0.87	0.68	0.61	0.70	0.74	0.72	1.00						
RM	0.79	0.75	0.65	0.65	0.70	0.67	0.89	1.00					
CN	0.74	0.73	0.75	0.66	0.68	0.67	0.79	0.88	1.00				
GS	0.37	0.34	0.30	0.57	0.57	0.41	0.43	0.39	0.35	1.00			
AD	0.35	0.42	0.32	0.50	0.41	0.35	0.38	0.45	0.41	0.61	1.00		
SH	0.78	0.74	0.66	0.70	0.73	0.74	0.88	0.86	0.77	0.53	0.50	1.00	
ST	0.69	0.71	0.70	0.67	0.71	0.73	0.77	0.79	0.76	0.51	0.53	0.90	1.00

*Note.*  $N = 327$ . The following abbreviations are used in the appendix: IC = Interpersonal Comfort, CO = Coaching, RC = Role Clarification, SP = Sponsorship, GO = Growth Opportunities, FB = Feedback, FD = Friendship, RM = Role Modeling, CN = Counseling, GS = Satisfaction with Growth and Development, AD = Satisfaction with Advancement, SH = Satisfaction with the Supervisor (Human Relations), ST = Satisfaction with the Supervisor (Technical). Estimates of goodness-of-fit are : chi-square ( $df = 266, p < .01$ ) = 785.68, root mean square error of approximation = 0.08, nonnormed fit index = 0.94, comparative fit index = 0.96. All T-values for structural coefficients (i.e. factor loadings) and measurement error variances are statistically significant ( $p < .05$ ), and are 2.00 or greater.

APPENDIX D

RESULTS OF THE MEASUREMENT MODEL FOR INDEPENDENT LATENT  
VARIABLES

Table D.1

*Measurement Model of Independent Latent Variables*

Parcel	Factor Loading			Measurement Error Variance
	CS	RAC	GEN	
CS1	1.00			0.14
CS2	0.96			0.23
CS3	1.02			0.22
RAC		1.00		-----
GEN			1.00	-----

Table D.2

*Independent Latent Variable Correlations*

	Factor Correlations		
	CS	RAC	GEN
CS	1.00		
RAC	-.11	1.00	
GEN	0.03	0.09	1.00

*Note.*  $N = 327$ . The following abbreviations are used in the appendix: CS (Core Self-evaluations), RAC (Race Similarity), and GEN (Gender Similarity). For RAC and GEN, homogeneous dyads were assigned a coded value of 1 and heterogeneous dyads were assigned a coded value of 2.

VITA  
FLORENCE R. JINADU

Old Dominion University  
Department of Psychology  
250 Mills Godwin Building  
Norfolk, VA 23529

EDUCATION:

- 1997 University of North Carolina, Chapel Hill, NC  
B.A. in Psychology
- 1999 George Mason University, Fairfax, VA  
M.A. in Industrial-Organizational Psychology
- 2002 Old Dominion University, Norfolk, VA  
M.S. in Psychology
- 2006 Old Dominion University  
Ph.D. in Industrial-Organizational Psychology

PROFESSIONAL EXPERIENCE:

- 6/2005 – 7/2006 BellSouth Corporation, Atlanta, GA  
Capability Assessment Intern
- 8/2006 – present Personnel Decisions International, Washington D.C.  
Consultant

PROFESSIONAL AFFILIATIONS:

- Society for Industrial-Organizational Psychology (SIOP), Student Affiliate
- American Psychological Association (APA), Student Affiliate