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## Neuroticism as a Mediator between Perceived Attachment Patterns and Career Search and College Self-Efficacy

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LOYOLA UNIVERSITY CHICAGO

NEUROTICISM AS A MEDIATOR BETWEEN PERCEIVED ATTACHMENT  
PATTERNS AND CAREER SEARCH AND COLLEGE SELF-EFFICACY

A THESIS SUBMITTED TO  
THE FACULTY OF THE GRADUATE SCHOOL  
IN CANDIDACY FOR THE DEGREE OF  
MASTER OF ARTS

DEPARTMENT OF COUNSELING PSYCHOLOGY

BY  
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CHICAGO, ILLINOIS

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## CHAPTER 1

### INTRODUCTION

Throughout history, secure attachment relationships have seemed to serve as a critical foundation to one's healthy developmental process that is necessary to our survival. Attachment theory's evolutionary significance, evident in human's and other species' predisposition to seek and form attachments or enduring affectional bonds with others, serves to ensure the survival of the young by activating critical responses from the infant's principal care-giver (Bowlby, 1988). In general, attachment theory proposes that when an individual is confident that an attachment figure will be available to him/her for comfort and security when needed, he/she will be less prone to fear or apprehension. Consequently, he/she will engage in active exploration and mastery of the environment, thus fostering the growth of social and intellectual competence.

The quality of the relationship with an attachment figure in one's early developmental history becomes internalized in the form of expectations about the primary care-giver's accessibility and ability to provide security and comfort in addition to beliefs about his or her own worthiness as an individual. Internal working models, the crux of attachment theory's importance, are believed to represent the quality of the attachment pattern throughout the life span and to be particularly active during important life transitions (Bowlby, 1969; Bretherton, 1992; Lopez & Glover, 1993).

In order to understand what is meant by "attachment" one must first recognize that although "object relations," "dependency," and "attachment"

are overlapping constructs, they differ substantially in terms of their theoretical approaches to the origin and development of the infant-mother relationship (Ainsworth, 1969). Each of these theoretical views will be discussed at length in order to define "attachment" from an organizational perspective and to demonstrate the ambiguity of the operational definition of the attachment construct and the resulting confusion of its relevance. Clearly, such an ambiguous and overlapping construct needs clarification before its' applications can be fully understood. In order to delve more deeply into the true nature of the attachment construct and the causal mechanisms that operate between perceived attachment patterns and adjustment, the possibility of mediating variables needs to be considered.

Attachment theory and its large body of research suggests the active role attachment plays in our developmental process and the numerous applications attachment theory holds, especially in the framework of anticipating and understanding variations in human coping patterns during normative transitions throughout the life-span (Ainsworth, 1989; Allison & Sabatelli, 1988; Armsden, McCauley, Greenberg, Burke, & Mitchell, 1990; Blustein, Walbridge, Friedlander, & Palladino, 1991; Bowlby, 1969; Bretherton, 1992; Greenberg, Siegel, & Leitch, 1982; Grotevant & Cooper, 1986; Henderson, 1977; Hoffman, 1984; Kenny, 1987,1990,1994; Kenny & Donaldson, 1991; Kenny, Moilanen, Lomax, & Brabeck, 1993; Kobak & Sceery, 1988; Lapsley, Rice, & FitzGerald, 1990; Lopez 1987, 1989; Lopez, paper presented at APA, Toronto, Canada, August, 1993; Lopez & Glover, 1993; Mallinckrodt, 1991; Matas, Arend, & Sroufe, 1978; McCrae & Costa, 1988; O'Brien, 1993; Palmer & Cochran, 1988; Rice, 1990; Ryan, 1994; Snoek & Rothblum, 1979). For example, significant correlations between perceived attachment patterns and numerous dependent variables such as mental health (Henderson, 1977), self-esteem (Kenny, 1987;

Lapsley, Rice, FitzGerald, 1990), counselor-rated working alliances (Mallinckrodt, 1991), social competence and assertiveness (Rice, 1990), and even personality (McCrae & Costa, 1988) and general life satisfaction (Lapsley, Rice, & FitzGerald, 1990; Rice, 1990) have all been demonstrated.

For the purposes of this study, recent findings will be explored in order to establish two relationships. First, literature will be reviewed that support the relationship between perceived attachment patterns and career related processes (Blustein, Walbridge, Friedlander, & Palladino, 1991; Kenny, 1990; Lopez 1987,1989; O'Brien, 1993; Otto & Call, 1985; Palmer & Cochran, 1988; Schulenberg, Vondracek, & Crouter, 1984; Splete & Freeman-George; Ryan, 1994), and college adjustment (Kenny, 1987; Kenny & Donaldson, 1991; Lopez, 1989b). Second, literature suggesting a relationship between perceived attachment patterns and personality dimensions (McCrae & Costa, 1988) will be reviewed to indicate that the degree of neuroticism may result in recall bias which affects one's perception of attachment (Bradley & Mogg, 1994; Larsen, 1992; Mayo, 1989; McCrae & Costa, 1988; Mogg, Galbraith, & Perrett, 1993; Okun, Stock, Snead, & Wierimaa, 1987).

While research has found that attachment is associated with career search self-efficacy (Ryan, 1994), and that neuroticism affects one's perceptions of attachment, what has not been investigated is whether negative affectivity mediates the relationship between attachment and career search and college self-efficacy.

### Hypotheses

#### Hypothesis 1(a)

It was hypothesized that negative affectivity and perceived attachment relationships may have main and additive effects on career search self-efficacy beliefs.

#### Hypothesis 1(b)

It was hypothesized that negative affectivity and perceived attachment relationships may have main and additive effects on college self-efficacy beliefs.

#### Hypothesis 2(a)

It was hypothesized that negative affectivity and perceived attachment relationships will mediate the relationship between perceived attachment relationships and career search self-efficacy beliefs.

#### Hypothesis 2(b)

It was hypothesized that negative affectivity and perceived attachment relationships will mediate the relationship between perceived attachment relationships and college self-efficacy beliefs.

## CHAPTER 2

### REVIEW OF THE LITERATURE AND RELATED RESEARCH

#### Theoretical Views of Attachment

Attachment theory stems from the joint work of John Bowlby's attempts to understand the origin, function, and development of infants' early social relations and Mary Salter Ainsworth's interest in security theory. In formulating attachment theory, Bowlby uniquely integrated his psychoanalytic orientation with his ethological-evolutionary views of behavior and Piaget's structural approach to the development of cognition (Ainsworth et al. 1978). Although the main function of attachment theory was initially directed toward understanding the attachment of infant to mother, attachment theory has expanded to encompass numerous other types of affectional bonds which are relevant in exploring human relationships throughout the life span (Ainsworth, 1989; Kenny, 1994). The caregiving system, the nature of affectional bonds of parents to the child, and the interaction of these bonds with the attachments of the child to the parents, how attachments to parents and surrogate figures develop throughout the life cycle and relate to one's emotional adjustments, sexual pair-bonds and their complex components (Weiss, 1982,1991; Shaver and Hazan, 1988), and even the behavioral systems underlying friendships and how such bonds resemble and differ from other affectional bonds are all examples of the breadth of attachment theory (Ainsworth, 1989; Lopez paper presented at APA, August, 1993; Lyddon, Bradford, & Nelson, 1993).

In order to understand what is meant by "attachment" one must first recognize that although "object relations," "dependency," and "attachment," are overlapping constructs, they differ substantially in terms of their theoretical approaches to the origin and development of the infant-mother relationship (Ainsworth, 1969). "Object relations," stemming from psychoanalytic instinct theory, views the object (the caregiver) as the means through which the aim or instinctual drive is achieved. Anxiety resulting from the mother's absence serves as "signal" anxiety which signals the danger to the child that his/her bodily needs will go unmet. Thus, the infant acquires the mother as an object through his dependence on her for need-gratification.

Within this object relations view are two divisions of theorists: "ego psychology" and the "phylogenetic foundation" (Ainsworth, 1969). Ego psychology supporters view the development of object relations as interwoven with ego development and as therefore being dependent on the acquisition of cognitive structures. Hence, the development of object relations is viewed in three main stages: an undifferentiated or objectless stage, a transitional stage, and a stage of object relations (Ainsworth, 1969). For example, the newborn is described as experiencing everything as part of himself. Since the baby cannot even distinguish his mother from himself, he cannot relate to her as a love "object." As the ego functions begin to emerge within the first year of life, the infant will have undergone dramatic transformations including the ability to distinguish between self and nonself, to make the distinctions between people, to demonstrate preferences, to actively engage with the external world, and to form a firm attachment to his mother.

The second group has followed Freud's reference to a "phylogenetic foundation" which views object relations as primary rather than secondary acquisitions which have developed on the basis of gratification of primary

drives. According to Freud's instinct theory, the source and aim of an instinctual drive, both genetically determined, are little influenced by environmental variations.

The attachment concept rooted in the social learning theory of dependency (Maccoby & Masters, 1979; Sears, Whiting, Nowlis, & Sears, 1953) views attachment as a trait construct. Social learning theorists have defined dependency as a drive which is learned as the infant attempts to reduce his/her primary drives. Dependency is viewed by learning theorists as a generalized personality trait or as a class of behaviors which were learned in the context of the infant's dependency relationship with his/her mother. These behaviors are reinforced as the mother continues to care for and to interact with the child. Although the nature of the dependency relationship begins as a specific one (the mother or surrogate mother and the child), it is generalized to other subsequent interpersonal relations. As opposed to attachment, dependency connotes immaturity, a state of helplessness, and it is not synonymous with love. For example, the end is significant to the dependent person, not the person who served as the vehicle or means to the end (Ainsworth, 1969). Furthermore, behavior characteristic of dependence implies seeking not only contact with and proximity to a generalized class of other persons but also help, attention, and approval.

The social learning view of dependency assumes that attachment can be indexed by a given set of behaviors that are constantly and uniformly operative and can be measured as a quantity within an individual with a fixed probability of occurrence (Sroufe & Waters, 1977). However, empirical data reflects a low intercorrelation among behaviors presumed to be indices of attachment in addition to low temporal stability and the strong influence of

context (Sroufe & Waters, 1977). Collectively, these findings call this view of the attachment construct into question (Sroufe & Waters, 1977).

A third, more favorable view in my opinion, (Ainsworth, 1969; Bowlby, 1969) describes attachment as an intervening variable or an organizational construct. The attachment construct originates from John Bowlby's unique integration of his psychoanalytic orientation with his ethological-evolutionary views of behavior and Piaget's structural approach to the development of cognition (Ainsworth, Blehor, Waters, & Watt, 1978). The organizational perspective removed attachment from the conceptual framework of drive reduction and causal trait concepts and places it within systems theory terms of set goals, goal correction, and function. Within the attachment system, proximity and other attachment behaviors such as smiling, clinging, signaling, locomotion and crying serve as the set goal and the biological function of protection from predation. Instead of viewing proximity seeking as being automatically elicited, it depends upon the infant's subjective experience of security-insecurity (Sroufe & Waters, 1977). Bowlby's theory of the function of attachment behavior sufficed for the evolution of attachment behavior in many species. However, Ainsworth (1972) augmented the theory with the concept of the attachment figure as a secure base for exploration. The attachment figure provides a secure base of support, which in turn fosters active exploration and mastery of the environment and the development of social and intellectual competence (Kenny, 1994). This species general view holds that attachment is an affective tie between infant and caregiver which operates in terms of set goals, mediated by feelings, and interacting with other behavioral systems. Thus, attachment behavior is predictably influenced by context instead of remaining constant across situations and individual differences in the quality of attachment should be



related to different patterns of behavioral organization (Sroufe & Waters, 1977). Bowlby drew a clear distinction between this new paradigm and the old social learning theory. Whereas the social learning theory concept of dependency is associated with psychological regression, attachment performs a healthy function throughout the life span by providing recipients with emotional support and a sense of closeness and continuity. This construct is particularly active during important life transitions (Bowlby, 1969; Bretherton, 1992; Lopez & Glover, 1993).

### The Operational Definition of Attachment

Combining Ainsworth's and Bowlby's definitions, attachment generally refers to the presence of a close, enduring affectional bond or relationship between two people that is assumed to foster human development throughout the life span by providing recipients with emotional support and a sense of closeness and continuity (Bowlby, 1969; Ainsworth, 1989). In order to operationalize this construct, one must first understand what is meant by "affectional bonds." Ainsworth (1989) describes affectional bonds as distinct from relationships in that affectional bonds are relatively long-lasting, characteristic of the individual (not the dyad), and are represented in the internal organization of the individual. Furthermore, the (attachment) object is not interchangeable and there is a desire to maintain closeness to the partner. Through observation, Ainsworth (1973) found that inexplicable separation tends to cause distress and permanent loss would cause grief (Ainsworth, 1989).

An "attachment" is a type of affectional bond, thus the attachment relationship is characterized by the object serving a particular psychological function for which others cannot substitute and by the object eliciting affective and social responses that differ from those elicited by other figures

(Ainsworth, 1989; Cohen, 1974). One criterion of attachment which is not essential to other affectional bonds is the experience or attempt at attain security and comfort from the attachment relationship, combined with the ability and confidence to venture out from the secure base provided by the attachment figure (Ainsworth, 1989).

According to, in order for a specific behavior to be considered an index of attachment, the behavior must be selective and function to promote proximity to the attachment figure. Furthermore, an adequate operational definition of attachment must include demonstrable proof that a 'special' relationship exists. This is probably best achieved through selective responding which Ainsworth (1989) views as a necessary but not sufficient condition for the demonstration of attachment. Selective behavior also seems to be characteristic of attachment at all levels of development except in early infancy (Cohen,1974). Although Bowlby (1969) focused on proximity promoting behaviors, Cohen (1974) suggests not limiting the study of attachment to a particular class of behaviors promoting proximity that are easily confused with general social responding.

#### Patterns of Attachment and Internal Working Models

The primary role of the attachment figure is to provide a secure home base by being available as a source of help when needed, to provide a sense of comfort, and to encourage the growth of self-reliance in a sensitive manner. A second function of attachment relationships is to form the core of internal working models or mental representations of the self and others. Through observation, Ainsworth identified three primary patterns of infant behavior which represent the individual's internal working models: secure, avoident, and anxious/ambivalent (Ainsworth, et al. 1978). Secure attachment relationships stem from early attachment figures acting as a reliable,

responsive, and accessible agents. These conditions create a "secure base" from which the child ventures to explore novel environments, subsequently fostering the development of personal and social competence while becoming increasingly capable of affective self-regulation when separated from the attachment figure. The secure attachment relationship fosters an internal working model that views the self as worthy and competent and others as dependable and responsive (Ainsworth et al. 1978).

The anxious/ambivalent attachment style results from the experience of early attachment figures responding inconsistently when needed. Thus, the child develops an internal working model of self as uncertain and fearful, and of others as desirable and possibly affirming, yet unreliable (Lopez; August, 1993). Not surprisingly, the child's self-confidence, self-worth, motivation for exploration and mastery is contingent upon the presence, support, and approval of important attachment figures (Ainsworth et al., 1978; Lopez; August, 1993).

A third attachment pattern, "anxious/avoidant" attachment has been further differentiated into dismissive/hostile and fearful patterns (Lopez; August, 1993). Anxious/avoidant attachment patterns result from the attachment figure consistently neglecting to respond to the child's efforts to solicit protection, support, and comfort. Hence, the internal working model of self is that of feeling isolated and unwanted, and of others as rejecting and untrustworthy. These individuals seem to disconnect from proximity-seeking behaviors and related affects and to experience difficulty in forming close relationships. Bowlby suggested that anxious/avoidant attachment to be a precursor to a wide range of undesirable developmental outcomes such as chronic delinquency and antisocial behavior (Lopez: August, 1993).

Most securely (adaptively) attached 1-year-old infants characteristically seek physical contact and proximity when distressed and seek contact upon reunion even if minimally distressed by separation from the mother. When distressed, infants find contact an effective terminating condition for the attachment behaviors activated during separation. An infant's inability to find comfort when reunited with the attachment figure indicates that the attachment behavioral system is not serving its' usual integrative/adaptive function. Such insecurely or maladaptively attached infants may need contact when under minimal environmental stress and they may be unable to regain a sense of security or to resume exploration upon reunion. Insecurely attached infants may also actively avoid contact or interaction upon reunion.

The nature of an infant's attachment cannot be inferred from any particular behavior such as crying, anger, or resistance; rather, it must be inferred from the pattern of behavior in consideration of context over time (Sroufe and Water, 1977). Unless a child's protest at separation and subsequent proximity seeking behavior are organized with respect to context and to other behaviors, these "hallmarks" of attachment cannot be considered indicative of the quality of attachment (Sroufe & Waters, 1977). Furthermore, the strength of an attachment cannot be indexed based on the degree or quantity of proximity seeking behaviors or separations protests.

Given a stable caretaking environment, normative shifts in the nature of an individual's attachment to parent figures occur beyond infancy. As the infant matures, the child gains confidence in the stability of the infant-caregiver relationship which becomes built into the child's working model of his or her relationship with the attachment figure. As the child develops the ability to create internal mental representations of their attachment relationship in the form of expectations about the care giver's accessibility

and responsiveness in addition to the infant's ability to elicit these behaviors from the care giver, he or she will be more tolerant of separation from that figure for longer periods of times and will likely exhibit less distress in addition to venturing farther away from his or her secure base to explore novel environments (Ainsworth, 1989). An individual's internal working model, the crux of attachment theory's importance, is represented by the quality of the attachment pattern throughout the life span. Shifts in the nature of attachment may be attributed to socioemotional experience, hormonal, neurophysiological, and cognitive changes (Ainsworth, 1989).

Empirical research supporting the notion of internal working models came from attempts to relate Ainsworth's infant-mother attachment patterns into corresponding adult patterns. For example, in the Adult Attachment Interview (George, Kaplan, & Main, 1984), parents were asked open-ended questions about their childhood attachment relations and about the influences of these early relations on their own development. Three distinct patterns of responding were identified which correlated conceptually and empirically to Ainsworth's secure, anxious/ambivalent, and insecurely attached infants: autonomous-secure parents gave a clear and coherent account of early attachment relationships regardless of whether these relationships had been satisfying or not; preoccupied parents recalled conflicting childhood memories concerning attachment but did not combine the memories into a coherent, consistent picture; and dismissing parents were characterized by an inability to remember much at all about their attachment relationships as a child but specific memories that were recalled suggested episodes of rejection (George, Kaplan, & Main, 1984). These adult attachment classifications have been correlated with peer reports (Kobak & Sceery, 1988) and with infant

patterns in that an autonomous parent tended to have a securely attached infant (Bretherton, 1992).

### Measuring the Attachment Construct

Recent measures of adolescent and adult attachment such as Hazan and Shaver's measure (1987, 1990), West and Sheldon's Measure of Insecure Attachment, and the IPPA (Armsden & Greenberg, 1987) are designed to classify individuals into the three attachment styles (Lyddon, et al 1993). Other measures that are either directly or indirectly related to the assessment of attachment include: the Adult Attachment Interview (George, Kaplan, & Main, 1985), The Bell Object Relations Inventory (Bell, Billington, & Becker, 1986), the Attachment History Questionnaire (Kessler, 1984), the Parental Attachment Questionnaire (Kenny, 1987), the Parental Bonding Instrument (Parker, Tupling, & Brown, 1979), the Psychological Separation Inventory (Hoffman, 1984), the Inventory of Adult Attachment Dimensions (West, Sheldon, & Reiffer, 1989), the Personal Authority in the Family System Questionnaire (Bray, Williamson, & Malone, 1984), and the Multigenerational Interconnectedness Scales and Family Intrusiveness Scale (Gavazzi & Sabatelli, 1987, 1988).

The number of different measures for the attachment construct is in part a result of the differing conceptualizations of Attachment Theory. Clearly, such an ambiguous and overlapping construct needs clarification before the applications of attachment theory can be fully understood. In order to delve more deeply into the true nature of the attachment construct and the causal mechanisms that operate between perceived attachment patterns and adjustment, the possibility of mediating, moderating, or additive variables needs to be considered.

### Rationale for the Study: Correlations, Significance and Applications of

## Attachment Theory

Numerous studies have documented significant correlations between the quality of one's perceived attachment patterns and their mental health, social competence, interpersonal functioning, ability to cope during important transitions throughout the life-span, and even general life satisfaction (Armsden et al., 1990; Allison & Sabatelli, 1988; Blustein et al., 1991; Greenberg et al., 1983; Grotevant & Cooper, 1985; Henderson, 1977; Hoffman, 1984 (Separation); Kenny, 1987, 1990, 1994; Kenny & Donaldson, 1991; Kenny et al., 1993; Kobak, & Sceery, 1988; Lapsley et al., 1990; Mallinckrodt, 1991; Matas et al., 1978; Rice, 1990; Snoek & Rothblum, 1979; Ryan, 1994.) All of the above empirical studies demonstrate the usefulness of considering the quality of attachment patterns to significant others as an important variable throughout the life-span and the numerous applications attachment theory holds-- especially in the framework of anticipating and understanding variations in human coping patterns during normative transitions in adult development (Ainsworth, 1989; Bowlby, 1969; Kenny, 1994; Lopez, August, 1993).

Applied to psychotherapy, Bowlby (1988) advocated the major goal to be the reappraisal of inadequate, outdated internal working models of self in relation to attachment figures. For example, a person with inadequate, rigid working models of attachment relations is likely to inappropriately impose these models on interaction with the therapist. The therapist, serving as a reliable secure base from which an individual can begin the prodigious task of exploring and reworking his or her internal working models, joins the client in the task of understanding the origins of the client's dysfunctional internal working models of the self and attachment figures.

For the purposes of this study, the first important relationship to establish is between perceived attachment patterns and career search self-efficacy. Research indicates that significant relationships exist between attachment patterns and career search self-efficacy and career related processes (Blustein et al., 1991; Kenny, 1990; Lopez & Andrews, 1987; Lopez, 1989b; O'Brien, 1993; Otto & Call, 1985; Palmer & Cochran, 1988; Rice, 1990; Ryan, 1994; Schulenberg, Vondracek, & Crouter, 1984; Young, 1991). For example, Blustein et al. (1991) tested the hypothesis that perceptions of psychological separation (as defined by perceptions of attachment to one's parents) and parental attachment (as defined by perceptions of conflictual and attitudinal independence from one's parents) would be positively related to progress in the career commitment process and inversely related to the tendency to foreclose on career choices. The results supported the hypothesis in that the psychological separation and parental attachment variables provided significant means of predicting variations in both the progress in and method of committing to career choices. The influence of parental attachment in the career commitment process was most pronounced when analyzed in conjunction with some degree of psychological separation, particularly in the domain of conflictual independence which has to do with the absence of guilt, anxiety, resentment, and anger in an adolescent's relationship with his or her parents (Blustein et al. 1991). Thus, the use of the attachment construct enabled Blustein et al. (1991) to enrich our understanding of adolescent-parent relationships in the career development process.

Similarly, findings from Ryan (1994) and O'Brien's (1993) studies support the notion that secure attachment has a positive impact upon career search self-efficacy beliefs--especially for woman. Ryan (1994) hypothesized that a significant amount of variance in career search self-efficacy beliefs would be



accounted for by family structure, attachment, and influence variables. The results indicated that attachment to mother, fear of separation, and attachment to father contributed significantly to the prediction of career search self-efficacy. Combined, these three variables accounted for a total 18% of the estimated variance.

O'Brien (1993) investigated the relationship between psychological separation and parental attachment in relation to career decision making self-efficacy. In a sample of high school females, the results indicated that attachment to mother in addition to emotional independence from mother, attitudinal independence from mother, and emotional independence from father were predictive of career decision making self-efficacy beliefs.

#### Attachment Patterns, Neuroticism and Recall Bias

Although no causal inferences can be made concerning the correlation between attachment patterns and individuals scoring high on neuroticism (the behavior of parents could be elicited by the negative characteristics of a child high in neuroticism who is thus prone to anxiety, irritability, and impulsive behavior), this relationship is an important link in the rationale for this study. Evidence suggesting a significant correlation between attachment and personality is supported by the findings of McCrae and Costa (1988) in their study linking recalled adult children's ratings of their parents behaviors as measured by the Parent-Child Relation Questionnaire II with self-reports and peer ratings of personality on the NEO-Personality Inventory in a sample of 619 men and women aged 21 to 96. Individuals who reported that their parents were loving, which denotes secure attachment relationships, scored lower in neuroticism and higher in extraversion, openness to experience, agreeableness, and conscientiousness. Specifically, the results indicated that

neuroticism is related to recalled rejection from mothers and fathers in both men and women (McCrae & Costa, 1988).

In any retrospective study, there is no doubt that individuals are vulnerable to numerous biases in remembering or reconstructing their past lives. Thus, the body of literature that has established a relationship between negative affectivity and problems with recall bias (Bradley & Mogg, 1994; Larsen, 1992; Mayo, 1989; McCrae & Costa, 1988; Mogg, Galbraith, & Perrett, 1993; Okun, Stock, Snead, & Wierimaa, 1987) has important implications in the realm of perceived attachment because neuroticism may negatively interfere with one's perception of perceived attachment patterns. For example, if a person scores high on neuroticism, he or she may be more prone to find fault with his or her parents and to remember them as having been less loving because such people tend to be dissatisfied with all aspects of their life in general (McCrae & Costa, 1988). Another example which demonstrates retrospective bias is the idea that memories are reconstructed on the basis of one's view of human nature. Where numerous studies have linked secure attachment relationships to well-adjusted adults, a well-adjusted individual may assume that he or she must have had loving parents because he or she believes that parental love is necessary for later adjustment (McCrae & Costa, 1988). In both instances, the individual's personality trait or internal belief system seems to confound the amount of estimated variance for later adjustment accounted for by attachment patterns. In other words, it remains unclear as to whether neuroticism serves as a mediator, has no significant effect, or has an independent, additive, main effect in the relationship between perceived attachment and a given criterion.

To summarize, the above studies have demonstrated the active role attachment plays in our developmental process and the numerous applications

attachment theory holds in research and therapy. Recent findings were cited in order to establish the relationships between perceived attachment patterns and career related processes and personality. Most importantly, empirical studies were discussed that indicate personality dimensions such as neuroticism may serve to confound the amount of variance for a number of dependent variables accounted for by the attachment construct. No study has assessed the relationships between perceived attachment patterns with one's primary care-givers, negative affectivity, and career search and college self-efficacy. Therefore, the goal of this study is to assess whether negative affectivity serves as a mediating or additive variable in the relationships between perceived attachment patterns and career search and college self-efficacy.

#### Moderating and Mediating Effects

In general, a moderator is a qualitative or quantitative variable that affects the direction and/or the strength of the relationship between an independent and dependent or criterion variable (Baron & Kenny, 1986). A moderator is actually a third variable that affects the zero-order correlation between the other two variables. The moderator effect may occur where the direction of the correlation changes between the independent and dependent variables. To test whether a variable serves as a moderator, it is desirable for the moderator variable to be uncorrelated with both the predictor and the dependent or criterion variable in order to provide a clearly interpretable interaction term (Baron & Kenny, 1986).

Applied to this study, the personality dimension of negative affectivity should be uncorrelated with attachment patterns and career search and college self-efficacy. Since this is not the case, the moderator model will

not be tested. However, it seems possible that neuroticism may have an independent main effect which may serve as an additive effect with the quality of one's attachment patterns on career search and college self-efficacy.

In a mediator-predictor relation, the predictor is causally antecedent to the mediator and the mediator may shift roles from effects to causes, depending on the focus of the analysis (Baron & Kenny, 1986). Since empirical studies have demonstrated that attachment patterns are significantly correlated with neuroticism (among other personality dimensions) and career and college related processes, and that neuroticism is related to adjustment, neuroticism may serve as a partial or complete mediating variable in the relationship between perceived attachment patterns and career search and college self-efficacy.

### Hypotheses

#### Hypothesis 1(a)

It was hypothesized that negative affectivity and perceived attachment relationships may have main and additive effects on career search self-efficacy beliefs.

#### Hypothesis 1(b)

It was hypothesized that negative affectivity and perceived attachment relationships may have main and additive effects on college self-efficacy beliefs.

#### Hypothesis 2(a)

It was hypothesized that negative affectivity and perceived attachment relationships will mediate the relationship between perceived attachment relationships and career search self-efficacy beliefs.

#### Hypothesis 2(b)

It was hypothesized that negative affectivity and perceived attachment relationships will mediate the relationship between perceived attachment relationships and college self-efficacy.

## CHAPTER 3

### METHODOLOGY

#### Participants

Participants included 331 undergraduate students enrolled in a midwest University. 91 surveys were completed, yielding a 28% response rate. Among the students who participated in this study, 71 (78%) were female and 20 (22%) were males. The respondent's mean year of birth was 1973. The respondents represented the following racial ethnic backgrounds: 71 (78%) Caucasian, 10 (11%) African American, 6 (6.6%) Asian American, 3 (3.3%) other, and 1 (1.1%) did not answer. 86 (94.5%) of the respondents indicated that they are single, 2 (2.2%) are living with a partner, 1 (1.1%) are married, and 2 (2.2%) gave no answer. Last, 60 (65.9%) of the respondents live with a roommate, 16 (17.6%) live alone, 13 (14.3%) live with their parents, 1 (1.1%) live with a spouse and/or children, and 1 (1.1%) gave no answer.

#### Procedure

The surveys were mailed the first week of January, 1995, and follow up cards were sent the last week in January. To ensure confidentiality, surveys were mailed by University officials and coded to avoid the use of names.

#### Instruments

##### Inventory of Parental and Peer Attachment

The revised version of the Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987) was chosen to assess the affective and cognitive dimensions of the participants' relationships with their mothers and fathers.

This measure, which assumes that as cognitive development proceeds, internalized versus actual parental attachment theories influence continuing psychological stability and well-being (Lopez & Gover, 1993), is designed to separately assess attachment to mother and father as well as attachment to peers. The original self-report instrument, composed of 25 items each addressed to mother, father, and peer relationships, using a 5-point Likert-type scales, yields three separate attachment scores for the degree of mutual trust, quality of communication, and extent of anger and alienation. Specifically, trust items reflect the degree of mutual understanding and respect (example: "My parents respect my feelings), communication items assess the extent of spoken communication ("I tell my parents about my problems and troubles"), and alienation taps feelings of anger and interpersonal isolation ("My parents don't understand what I am going through these days"). For the purposes of this study, only the separate Trust, Communication, and Alienation scales for the parents (rated together) were employed.

The mother and father attachment scales have yielded excellent internal consistency (alphas of .87 and .89, respectively; Armsden & Greenberg, 1989). Good construct validity is supported by the clear three-factor structure, predictable relations between scores on the IPPA and scores on measures of family cohesion, depression, self-concept, loneliness, life satisfaction, and affective status (depression, anxiety, resentment/alienation, and covert anger; Armsden & Greenberg, 1987,1989). Evidence supporting the content validity is based on the close relations between the development of the items and models of attachment and adolescent development (Armsden & Greenberg, 1989). Additionally, the IPPA was found to be unrelated to socioeconomic status and ethnicity (Armsden & Greenberg, 1987, 1989).

## Measure of Neuroticism

The NEO Personality Inventory, a 181-item questionnaire developed through factor analysis, is designed to measure the five-dimension model of personality (Costa & McCrae, 1985). Measured traits fall into the domains of neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness.

The NEO-PI has been extensively validated against other inventories, observer ratings, and sentence completions and it has demonstrated construct validity in the prediction of somatic complaints, psychological well-being, and coping behavior (Costa & McCrae, 1985). Internal consistency and 6-month retest reliability for the neuroticism, extraversion, and openness scores range from .85 to .93. Socially desirable responding does not appear to bias scores and item scoring in the NEO-PI is balanced to control for acquiescence (McCrae & Costa, 1983b).

## Measure of College Self-Efficacy

The College Self-Efficacy Instrument (Solberg, O'Brien, Villareal, Kennel, & Davis, 1993), which consists of 19 items that all relate to various aspects of one's interpersonal and social adjustment at college, was chosen as a measure of college self-efficacy. This instrument consists of three subscales: course self-efficacy, roommate self-efficacy, and social self-efficacy. Course self-efficacy addressed issues related to writing papers, performing well in classes, and time management and consists of seven items that accounted for 44.8% of the estimated common variance. Examples these items include one's confidence in their ability to research a term paper, write course papers, and to do well on exams. Four items that accounted for 11.5% of the estimated common variance and loaded between the .95 to .80 range comprised the roommate self-efficacy subscale. This subscale, which addressed interpersonal aspects of communal living and managing household issues, includes one's



confidence in their ability to get along with roommate(s), to socialize with roommate(s), to divide chores with roommate(s) and to divide space in one's apartment/room. The third subscale factor, social self-efficacy, consisted of eight items that accounted for 7.2% of the estimated common variance and loaded in the range from .88 to .56. Social efficacy addresses various aspects of social and interpersonal adjustment, including speaking in class or to school personnel, getting dates, and integrating oneself into peer communities.

Reliability for internal consistency was established using coefficient alpha estimates of .93 for the entire scale .88 for each of the subscales. Convergent and discriminant validity was established using a correlation matrix consisting of four derived efficacy scales: the BSI, CSS, social support scales, and acculturation.

#### Measure of Career Search Self-Efficacy

The Career Search Self-Efficacy Scale (CSES, Solberg, Good, & Nord et al., 1994) was chosen as a measure of a construct that, like attachment patterns and internal working models, is particularly active during times of transition. This instrument was developed to measure the career search efficacy of adolescents and adults who are in the process of finding jobs or careers, changing careers or jobs, or reentering the job market.

The CSSES is comprised of 35 items yielding four subscales: Job Search Efficacy, Interviewing Efficacy, Networking Efficacy, and Personal Exploration efficacy. The Job Search Efficacy subscale consisted of 14 items and accounted for 52.9% of the trace variance with factor loadings ranging from .75 to .46. This factor relates to one's confidence in their ability to organize and carryout career plans, and to develop a variety of skills that can be used throughout a lifetime of career planning. Examples of items loading on this factor include one's confidence in their ability to organize and

carryout career plans, to achieve a satisfying career, and to understand how their skills can be used effectively in a variety of jobs.

The Interviewing Efficacy subscale consisted of 9 items and accounted for 6.1% of the trace variance with factor loading ranging from .76 to .51. This factor relates to various aspects of interviewing and evaluating job requirements during an actual job interview. Examples of items loading under the Interviewing Efficacy subscale include one's confidence in their ability to conduct an information interview, to evaluate a job during an interview, and to select helpful people at the workplace with whom to associate.

The Networking Efficacy subscale consisted of 7 items accounting for 34.8% of the trace variance with factor leading ranging from .71 to .52. This factor pertains to various networking activities such as using a network to identify job opportunities and soliciting help from an established career person. Examples of items loading under this factor include one's confidence in their ability to join organizations that have a career emphasis, to use their social network to identify job opportunities, and to meet new people in careers in interest.

The Personal Exploration Efficacy factor consists of 5 items that account for 3.8% of the trace variance with factor loading ranging from .87 to .58. The items on this subscale pertain to personal and career values and preferences. Examples of such items include one's confidence in their ability to clarify and examine their personal values, to identify and evaluate their preferences, and to identify and evaluate their career values.

Internal consistency was assessed using Cronbach's alpha which yielded estimates of .97 for the full scale, .95 for job search efficacy, .91 for interviewing efficacy, a .92 for networking efficacy, and .87 for personal exploration efficacy. Convergent and discriminant validity was established

using a principal components analysis of the CSES, CDMSE, PAQ, RAS, and the interpersonal skills subscales.

## CHAPTER 4

### RESULTS

#### Description of the Sample and Measures

The participants in this sample were 71 females and 20 males. T tests by gender indicated no significant differences for males and females. Thus, analyses were conducted for the total sample. The alpha reliability estimations for the measures used in this sample are shown in Table 1 for the total sample. Results indicate that all of the measures used demonstrated substantial reliability estimates.

A correlation matrix was conducted for the total sample which is replicated on table 2. As theory suggests, the correlation matrix indicated neuroticism to be moderately negatively related to attachment to mother (-.42\*\*), attachment to father (-.41) career search self-efficacy (-.56\*), and college self-efficacy (-.51\*\*). Attachment to mother and attachment to father were mildly positively related to career search self-efficacy (.33\*\* and .38\*\* respectively) and to college self-efficacy (.23\* and .32\*\* respectively).

Third, a one-way ANOVA analysis for living arrangement indicated (significant at the .05 level) individuals' levels of neuroticism to be higher if they live alone (mean score=86.25) versus with a roommate (mean score=69.58). There was a difference, also significant at the .05 level, found between the mean score of one's level of depression when living alone (mean score=14.75) versus (means score=10.45) living with a roommate. There was also a difference between living with one's family/parents (mean=10.61) and living

alone (mean = 16.00) on the impulsivity subscale of neuroticism and between living alone (mean = 11.81) and with a roommate (mean = 8.58) on the vulnerability subscale of neuroticism. Last, although this analysis of variance revealed no significant differences between groups on the overall career search self efficacy scale due to living arrangements, there was a significant difference at the .05 level between living alone (mean score = 6.6) versus with a roommate (mean score = 7.51) on the career search self-efficacy subcale "personal experience."

Fourth, the means, standard deviations, and ranges of scores on each of the scales are presented in table 3. Fifth, hierarchical regression analyses were performed to test for direct main effects, additive (interaction) effects, and for a mediator.

Hypothesis 1(a): Contribution of Negative Affectivity and Perceived Attachment to Mother and Father as Main and Additive Effects on Career Search Self-Efficacy

The first part of the first hypothesis stated that negative affectivity and perceived attachment relationships may have significant main and additive effects on career search self-efficacy. Hierarchical regression analyses were conducted using standardized variables except for neuroticism for which the sum was used. The results of the hierarchical regressions testing the direct effects model for the total sample is reproduced in tables 4-7.

The results indicated that negative affectivity and perceived attachment to mother and father both contributed significantly to the prediction of career search self-efficacy. Perceived attachment to mother accounted for 11% of the estimated variance in career search self-efficacy. Neuroticism accounted for 22% of the estimated variance in career search self-efficacy. Together, perceived attachment to mother and neuroticism accounted for 33% of the

estimated variance in career search self-efficacy. However, there was no significant interaction effect of neuroticism and perceived attachment to mother.

Similarly, when perceived attachment to father was entered into step one of the regression equation, perceived attachment to father and neuroticism accounted for 34% of the estimated variance in career search self-efficacy. Perceived attachment to father accounted for 14% and neuroticism accounted for 19% of the estimated variance in relation to career search self-efficacy. Again, no significant interaction effect between perceived attachment to father and neuroticism was found.

In summary, an examination of the change in  $R^2$  indicates that combined, perceived attachment to mother and negative affectivity account for a total of 33% of the estimated variance and perceived attachment to father and negative affectivity accounted for 34% of the estimated variance in career search self-efficacy beliefs. Perceived attachment to mother and father and neuroticism each had significant main effects contributing to the estimated variance in career search self-efficacy beliefs. There were no significant interaction effects.

#### Hypothesis 1(b): Contribution of Negative Affectivity and Perceived Attachment to Mother and Father as Main and Additive Effects on College Self-Efficacy

The second part of the first hypothesis stated that negative affectivity and perceived attachment relationships may have significant main and additive effects on college self-efficacy. Once again, hierarchical regression analyses were conducted using standardized variables except for neuroticism for which the sum was used. (See results of the hierarchical regressions testing the direct effects model for the total sample in Table 4.) The results indicated that

negative affectivity and perceived attachment to mother and father both contributed significantly to the prediction of college self-efficacy. When perceived attachment to mother was entered into the regression equation first, perceived attachment to mother accounted for 5% and neuroticism accounted for 21% of the estimated variance in college self-efficacy. Together, perceived attachment to mother and neuroticism accounted for 26% of the estimated variance in college self-efficacy. Again, there was no significant interaction effect of neuroticism and perceived attachment to mother.

Perceived attachment to father and neuroticism accounted for 27% of the estimated variance in college self-efficacy. Perceived attachment to father accounted for 11% neuroticism accounted for 16% of the estimated variance in college self-efficacy when perceived attachment to father was entered into the regression equation first. Again, no significant interaction effect between perceived attachment to father and neuroticism was found.

In summary, an examination of the change in  $R^2$  indicates that combined, perceived attachment to mother and negative affectivity account for a total of 26% of the estimated variance and perceived attachment to father and negative affectivity accounted for 27% of the estimated variance in college self-efficacy beliefs. Perceived attachment to mother and father and neuroticism each had main effects which significantly contributed to the estimated variance in college self-efficacy beliefs. There were no significant interaction effects.

#### Hypothesis 2(a): Negative Affectivity as a Mediator Between Perceived Attachment to Mother and Father and Career Search Self-Efficacy

The results from hypothesis 1(a), indicating the absence of interaction effects in addition to significant main effects of perceived attachment patterns and neuroticism upon career search self-efficacy, justify considering

neuroticism as a mediating variable between perceived attachment to mother and father and career search self-efficacy. Part one of the second hypothesis stated that negative affectivity may mediate the relationship between perceived attachment patterns and career search self-efficacy. The results of the hierarchical regression with neuroticism entered into the equation first and perceived attachment to mother entered second supported the above hypothesis. Specifically, neuroticism accounted for 31% of the variance in Career Search Self-Efficacy which was significant at the .01 level. The resulting 1% change in  $R^2$  when attachment to mother was entered into the equation second was not significant. Similar to the direct effects model, there was no significant interaction effect between attachment to mother and neuroticism.

When neuroticism and perceived attachment to father were entered into the regression equation first and second, respectively, neuroticism accounted for 30% of the estimated variance in career search self-efficacy which was significant at the .01 level. Interestingly, perceived attachment to father contributed an additional 3% to the estimated variance which was significant at the .05 level. Thus, neuroticism was unable to mediate the relationship between perceived attachment to father and career search self-efficacy. There was no significant interaction effect between perceived attachment to father and neuroticism.

Hypothesis 2(b): Negative Affectivity as a Mediator Between Perceived Attachment to Mother and Father and College Self-Efficacy

The second part of the second hypothesis stated that neuroticism may mediate the relationship between perceived attachment to mother and father and college self-efficacy. Again, the results from hypothesis 1(b), indicating the absence of interaction effects in addition to significant main effects of



perceived attachment patterns and neuroticism upon college self-efficacy, justify considering neuroticism as a mediating variable between perceived attachment to mother and father and college self-efficacy. The results of the hierarchical regression with neuroticism entered first and perceived attachment to mother entered second supported the above hypothesis. Specifically, neuroticism accounted for 26% of the variance in Career Search Self-Efficacy which was significant at the .01 level. There was no change in  $R^2$  when perceived attachment to mother was entered into the equation second. Thus, neuroticism mediated the relationship between perceived attachment to mother and college self-efficacy. The absence of a significant interaction effect between perceived attachment to father and neuroticism is also consistent with the mediator model.

The results of the hierarchical regression with neuroticism entered first and perceived attachment to father entered second also supported the mediator hypothesis. Specifically, neuroticism accounted for 26% of the variance in career search self-efficacy which was significant at the .01 level. The 2% change in  $R^2$  when perceived attachment to mother was entered into the equation second was not significant. Thus, neuroticism mediated the relationship between perceived attachment to mother and college self-efficacy. Similar to the direct effects model, there was no significant interaction effect between perceived attachment to mother and neuroticism.

Table 1. --Reliability Data for Scales

	alpha	N
Level of Neuroticism	.92	85
Attachment to Mother	.96	81
Attachment to Father	.96	81
Career Search Self-Efficacy	.97	83
College Self-Efficacy	.87	91

Table 2. --Correlation Matrix: Total Sample N = 91

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	1	2	3	4	5
1 Attachment to Mother	1.00				
2 Attachment to Father	.49**	1.00			
3 Neuroticism	-.42**	-.41**	1.00		
4 Career Search Self-Efficacy	.33**	.38**	-.56**	1.00	
5 College Self-Efficacy	.23*	.32**	-.51**	.63**	1.00

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\* = Significant level .05

\*\* = Significant level .01 (2-Tailed)

Table 3. --Descriptive Data For Scales: Sample N = 91

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	MEAN	SD	RANGE	N
Attachment to Mother (Scale 1-5)	3.93	.83	3.32	91
Attachment to Father (Scale 1-5)	3.50	.87	3.68	90
Neuroticism (Scale 0-240)	73.99	23.53	119.	91
Career Search Self-Efficacy (Scale 0-9)	6.91	1.20	5.69	90
College Self- Efficacy (Scale 0-9)	7.06	.97	4.26	91

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Note: All scales range from 1-5, with the exception of the Career Search Self-Efficacy Scale, which ranges from 0-9.

Table 4. --Direct Effects Model: Summary of Hierarchical Regressions Predicting Career Search Self-Efficacy from Attachment to Mother and Neuroticism

	R	R <sup>2</sup>	R <sup>2</sup> ch	Beta
Entered into Step One: Attachment to Mother	.33**	.11 **	.11**	.38**
Entered Into Step Two: Neuroticism	.57**	.33**	.22**	.51**
Interaction	.58	.34	.01	-.34

\* = Significant level .05

\*\* = Significant level .01 (2-Tailed)

Table 5. --Direct Effects Model: Summary of Hierarchical Regressions Predicting Career Search Self-Efficacy From Attachment to Father and Neuroticism

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	R	R <sup>2</sup>	R <sup>2</sup> ch	Beta
Entered Into Step One: Attachment to Father	.38**	.14**	.14**	.38**
Entered Into Step Two: Neuroticism	.58**	.34**	.19**	-.48**
Interaction	.58	.34	.00	.17

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\* = Significant level .05

\*\* = Significant level .01 (2-Tailed)

Table 6. --Direct Effects Model: Summary of Hierarchical Regressions Predicting College Self-Efficacy from Attachment to Mother and Neuroticism

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	R	R <sup>2</sup>	R <sup>2</sup> ch	Beta
Entered Into Step One: Attachment to Mother	.23*	.05*	.05*	.23**
Entered Into Step Two: Neuroticism	.51**	.26**	.21**	-.51**
Interaction	.52	.27	.00	-.16

---

\* = Significant level .05

\*\* = Significant level .01 (2-Tailed)

Table 7. --Direct Effects Model: Summary of Hierarchical Regressions Predicting College Self-Efficacy from Attachment to Father and Neuroticism

---

	R	R <sup>2</sup>	R <sup>2</sup> <sub>ch</sub>	Beta
Entered Into Step One: Attachment to Father	.32**	.11**	.11**	.32**
Entered Into Step Two: Neuroticism	.52**	.27**	.17**	-.45**
Interaction	.53	.28	.00	-.19

---

\* = Significant level .05

\*\* = Significant level .01 (2-Tailed)



Table 8. --Mediator Model: Total Sample Hierarchical Regression of Perceived Attachment to Mother and Neuroticism in the Prediction of Career Search Self-Efficacy

	R	R <sup>2</sup>	R <sup>2</sup> ch	Beta
Entered Into Step One: Neuroticism	.56**	.31**	.31**	-.56**
Entered Into Step Two: Attachment to Mother	.57	.33	.01	.12
Interaction	.58	.33	.01	.17

\* = Significant level .05

\*\* = Significant level .01 (2-Tailed)

Table 9. --Mediator Model: Total Sample Hierarchical Regression of Perceived Attachment to Father and Neuroticism in the Prediction of Career Search Self-Efficacy

	R	R <sup>2</sup>	R <sup>2</sup> ch	Beta
Entered Into Step One: Neuroticism	.55**	.30**	.30**	-.55**
Entered Into Step Two: Attachment to Father	.58*	.33*	.03*	.19*
Interaction	.58	.34	.00	.17

\* = Significant level .05

\*\* = Significant level .01 (2-Tailed)

Table 10.-- Mediator Model: Total Sample Hierarchical Regressions of Perceived Attachment to Mother and Neuroticism in the Prediction of College Self-Efficacy

	R	R <sup>2</sup>	R <sup>2</sup> ch	Beta
Entered Into Step One: Neuroticism	.51**	.26**	.26**	-.51**
Entered Step Two: Attachment to Mother	.51	.26	.00	.01
Interaction	.52	.27	.00	-.16

\* = Significant level .05

\*\* = Significant level .01 (2-Tailed)

Table 11. --Mediator Model: Total Sample Hierarchical Regression of Perceived Attachment to Father and Neuroticism in the Prediction of College Self-Efficacy

	R	R <sup>2</sup>	R <sup>2</sup> ch	Beta
Entered Into Step One: Neuroticism	.51**	.26**	.26**	-.51**
Entered Into Step Two: Attachment to Father	.52	.27	.02	.14
Interaction	.53	.28	.00	-.19

\* = Significant level .05

\*\* = Significant level .01 (2-Tailed)

## CHAPTER 5

### DISCUSSION

The purpose of this study was to delve more deeply into the true nature of the attachment construct and the causal mechanisms that operate between perceived attachment patterns and career search and college self-efficacy, in order to support or call into question attachment theory as it applies to adjustment during normative transitions throughout the life-span. Since literature supports the relationship between perceived attachment patterns and career related processes, including career search self-efficacy, and between perceived attachment patterns and neuroticism, the goal of this study was accomplished through testing whether neuroticism serves as a mediating or additive variable in these relationships. The rationale was based upon the idea that if another construct such as part of one's personality is mediating the effects that attachment relationships have upon career search and college self-efficacy, levels of neuroticism or perhaps other components of personality may account for a significant amount of the variance in other dependent variables in addition to career search and college self-efficacy that were originally thought to be accounted for by attachment relationships.

#### Hypothesis 1(a): Contribution of Negative Affectivity and Perceived Attachment to Mother and Father as Main and Additive Effects on Career Search Self-Efficacy

The first part of the first hypothesis stated that negative affectivity and perceived attachment relationships may have significant main and additive

effects on career search self-efficacy. Results of the hierarchical regression analyses indicated that perceived attachment to mother and father and neuroticism each had main effects on career self-efficacy beliefs. When perceived attachment to mother was entered first into the equation, attachment to mother accounted for 11% of the estimated variance in career search self-efficacy and neuroticism accounted for 22% of the estimated variance in career search self-efficacy. When perceived attachment to father was entered first into the equation, attachment to father accounted for 14% of the estimated variance in career search self-efficacy and neuroticism accounted for 19% of the estimated variance in career search self-efficacy. These results indicate that perceived attachment to mother and father and neuroticism each contributed significantly to the estimated variance predicting career search self-efficacy beliefs.

Furthermore, the hierarchical regression analyses indicated that combined, perceived attachment to mother and neuroticism and perceived attachment to father and neuroticism are significantly predictive of career search self-efficacy beliefs,  $R^2 = .33$  and  $.34$  respectively. However, there was no significant interaction effect. Based on these findings, the conclusion can be drawn that while the constructs of attachment and neuroticism each contributed significantly to one's career search self-efficacy among the students in this sample, there was no significant additive effect contributing to the correlation. The absence of a significant interaction effect between perceived attachment to father and neuroticism is consistent with the mediator model.

Hypothesis 1(b): Contribution of Negative Affectivity and Perceived Attachment to Mother and Father as Main and Additive Effects on College Self-Efficacy

The second part of the first hypothesis stated that negative affectivity and perceived attachment to mother and father may have main and additive effects on college self-efficacy when combined. Although the amount of estimated variance in college self-efficacy accounted for by perceived attachment to mother and father is somewhat lower than for career search self-efficacy, the results are similar to hypothesis 1(a). Hierarchical regression analysis indicated that perceived attachment to mother and father accounted for 5% and 11% of the estimated variance in college self-efficacy, respectively. Neuroticism accounted for 21% and 16% of the estimated variance in one's college self-efficacy when perceived attachment to mother and attachment to father were entered into the equation first, respectively. Combined, neuroticism and perceived attachment to mother accounted for 21% of the estimated variance in college self-efficacy and neuroticism and perceived attachment to father accounted for 27% of the estimated variance in college self-efficacy.

While the findings of the main effects of perceived attachment to mother and father on self-efficacy beliefs are consistent with attachment theory, this hypothesis yielded two results which warrant the further exploration of the role neuroticism plays in many dependent variables originally accounted for by the attachment construct alone. Specifically, the absence of an additive effect of perceived attachment to mother and father and neuroticism (the interaction of attachment to mother and neuroticism only added 1% to the strength of the correlation which was not significant, and the interaction of perceived attachment to father and neuroticism only added .3% to the correlation which was not significant) and the strong main effects that neuroticism had on self-efficacy beliefs indicates that neuroticism may

mediate the relationship between perceived attachment to mother and father and self-efficacy beliefs.

Hypothesis 2(a): Negative affectivity as a Mediator Between Perceived Attachment to Mother and Father and Career Search Self-Efficacy

The results indicated that variations in levels of perceived attachment to mother and father significantly account for variations in career search self-efficacy and that higher levels of neuroticism are significantly and inversely related to self-efficacy beliefs. In the case of career search self-efficacy, perceived attachment to mother failed to contribute any significant estimated variance beyond that accounted for by neuroticism. Thus, neuroticism served as a mediating variable in this relationship. The implications of this finding are great; neuroticism accounted for significant amounts of the estimated variance in the dependent variable of career search self-efficacy that was originally assumed to be accounted for by the perceived attachment to mother variable alone. This calls the applicability of attachment theory into question because neuroticism seems to be a necessary and sufficient condition in attaining self-efficacy beliefs.

Contrary to the above findings, perceived attachment to father contributed an additional 3% to the estimated variance, significant at the .05 level, predicting career search self-efficacy beliefs. Thus, neuroticism was unable to mediate the relationship between perceived attachment to father and career search self-efficacy beliefs. Although neuroticism accounted for a large amount of the estimated variance in the prediction of career search self-efficacy, perceived attachment to father remains a significant variable. This finding is consistent with attachment theory. Furthermore, it seems that the primary male figure plays a more influential role in the development of one's career search self-efficacy than perceived attachment to mother.



## Hypothesis 2(b): Negative Affectivity as a Mediator Between Perceived Attachment to Mother and Father and College Self-Efficacy

Although the strength of the correlations between attachment to mother and father and college self-efficacy are comparatively weaker than between perceived attachment to mother and father and career search self-efficacy, variations in levels of perceived attachment to mother and father significantly accounted for variations in college self-efficacy. Variations in the level of neuroticism also significantly accounted for variations in college self-efficacy.

In the case of college self-efficacy, perceived attachment to mother and perceived attachment to father failed to contribute any additional significant estimated variance beyond that accounted for by neuroticism. Thus, neuroticism served as a mediating variable in these relationships.

Consistent with the findings of McCrae & Costa (1988), this study supports the contention that neuroticism negatively interferes with one's perception of perceived attachment patterns. One explanation for these results is that a person scoring high on neuroticism may be more prone to find fault with his or her parents and to remember them as having been less loving because such people tend to be dissatisfied with all aspects of their life in general. On the other hand, well-adjusted individuals, linked to secure attachment relationships, may assume that he or she must have had loving parents because he or she believes that parental love is necessary for later adjustment. In both cases, an individual's internal belief system or personality trait (level of neuroticism) seems to confound the amount of estimated variance in career search and college self-efficacy originally thought to be accounted for by attachment patterns.

## Limitations of the Present Research

It should be noted that since this is a correlational study, one cannot conclude that career search or college self-efficacy beliefs are caused by perceived attachment to mother and father or neuroticism. In addition, although neuroticism was able to mediate the relationship between perceived attachment to mother and career search and college self-efficacy, and between perceived attachment to father and college self-efficacy, these findings cannot be assumed to apply to all dependent variables that existing research has demonstrated to be correlated with attachment relationships. This is exemplified by the fact that neuroticism was unable to mediate the relationship between perceived attachment to father and career search self-efficacy beliefs.

A further limitation of this study lies in the limited generalizability of this research. First, a larger sample size is needed. Second, the participants were predominantly Caucasian, female, and enrolled in a university that is nationally recognized for its selective admission process. In addition, the high tuition at the university where the sample was obtained may attract more affluent students. Thus, the results of this study should not be applied to members of other racial and ethnic groups or to different intelligence or socio-economic stratifications.

### Practical Implications

The results of this study yielded several findings which warrant particular areas for further research or intervention. Foremost, this study needs replication with a larger sample size that represents a more diverse population. The fact that neuroticism was able to mediate the relationships between perceived attachment patterns and career and college self-efficacy suggests that one's belief system or personality traits needs to be considered in

the relationships between perceived attachment patterns and career search and college self-efficacy.

Secondly, the results indicate that both males' and females' perceived attachment to father is a more potent variable than perceived attachment to mother in the prediction of career search self-efficacy and college self-efficacy. Thus, individuals identified as missing a male primary care-giver figure in their life may benefit from receiving job search, interviewing, networking, and personal exploration efficacy intervention in order to increase their career search self-efficacy. They may also benefit from receiving course, roommate, and social self-efficacy intervention skills in order to increase one's college self-efficacy.

Third, a one-way analysis of variance for living arrangements indicated several interesting findings which could be replicated in future research. First, individuals in this sample who live alone versus with a roommate or one's family/parents scored significantly higher on the overall neuroticism scale of the NEO-PI. Specifically, the mean scores of the participants were significantly higher when living alone versus with a roommate on the depression, vulnerability, and impulsivity subscales of neuroticism. Second, there was a significant difference between living alone versus with a roommate on the personal experience subscale of career search self-efficacy. Since the correlational matrix, consistent with attachment theory and the relevant literature, indicated that neuroticism is inversely related to secure attachment relationships (and subsequently healthy adjustment), the rationale for such a study would be warranted.

### Conclusions

This study identified neuroticism as a mediating variable in the relationships between perceived attachment to mother and career search self-

efficacy and perceived attachment to mother and father and college self-efficacy. These results strongly indicate that an individual's level of neuroticism should be taken into consideration when predicting career search and college self-efficacy accounted for by perceived attachment patterns. Thus, consistent with the findings of McCrae & Costa (1988), this study supports the contention that neuroticism negatively interferes with one's perception of perceived attachment patterns. In addition, the results also supported Bowlby and Ainsworth's Attachment Theory as indicated by the inability of neuroticism to mediate the relationship between perceived attachment to father and career search self-efficacy.

APPENDIX A  
INVENTORY OF PARENT AND PEER ATTACHMENT

APPENDIX A

INVENTORY OF PARENT AND PEER ATTACHMENT

This section asks about your relationships with your mother and father. Please read the directions to each part carefully.

Part I.

Each of the following statements asks your feelings about your mother or the woman who has acted as your mother. If you have more than one person acting as your mother (e.g., natural and step-mother), answer the questions for the one you feel has most influenced you. Please read each statement and circle the one number that tells how true that statements is for you now.

ALMOST NEVER OR NEVER TRUE	NOT VERY OFTEN TRUE	SOMETIMES TRUE	OFTEN TRUE	ALMOST NEVER OR NEVER TRUE
1	2	3	4	5
<hr/>				
1. My mother respects my feelings.	1	2	3	4 5
2. I feel my mother does a good job as my mother	1	2	3	4 5
3. I wish I had a different mother.	1	2	3	4 5
4. My mother accepts me as I am.	1	2	3	4 5
5. I like to get my mother's point of view on things that I'm concerned with.	1	2	3	4 5
6. I feel it's no use letting my feelings show around my mother	1	2	3	4 5
7. My mother can tell when I'm upset about something.	1	2	3	4 5
8. Talking over my problems with my mother makes me feel ashamed or foolish	1	2	3	4 5
9. My mother expects too much from me.	1	2	3	4 5
10. I get upset easily around my mother.	1	2	3	4 5

11. I get upset a lot more than my mother knows about.	1	2	3	4	5
12. When we discuss things, my mother cares about my point of view.	1	2	3	4	5
13. My mother trusts my judgment.	1	2	3	4	5
14. My mother has her own problems, so I don't bother her with mine.	1	2	3	4	5
15. My mother helps me to understand myself better.	1	2	3	4	5
16. I tell my mother about my problems and troubles.	1	2	3	4	5
17. I feel angry with my mother.	1	2	3	4	5
18. I don't get much attention from my mother.	1	2	3	4	5
19. My mother helps me to talk about my difficulties.	1	2	3	4	5
20. My mother understands me.	1	2	3	4	5
21. When I am angry about something, my mother tries to be understanding.	1	2	3	4	5
22. I trust my mother.	1	2	3	4	5
23. My mother doesn't understand what I'm going through these days.	1	2	3	4	5
24. I can count on my mother when I need to get something off my chest	1	2	3	4	5
25. If my mother knows something is bothering me, she asks me about it.	1	2	3	4	5

Part II.

Each of the following statements asks your feelings about your father or the man who has acted as your father. If you have more than one person acting as your father (e.g., natural and step-father), answer the questions for the one you feel has most influenced you. Please read each statement and circle the one number that tells how true that statements is for you now.

ALMOST NEVER OR NEVER TRUE	NOT VERY OFTEN TRUE	SOMETIMES TRUE	OFTEN TRUE	ALMOST NEVER OR NEVER TRUE
----------------------------------	------------------------	-------------------	------------	----------------------------------

1

2

3

4

5

- 
- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1. My father respects my feelings.  | 1 | 2 | 3 | 4 | 5 |
| 2. I feel my father does a good job as my mother                              | 1 | 2 | 3 | 4 | 5 |
| 3. I wish I had a different father.   | 1 | 2 | 3 | 4 | 5 |
| 4. My father accepts me as I am.  | 1 | 2 | 3 | 4 | 5 |
| 5. I like to get my father's point of view on things that I'm concerned with. | 1 | 2 | 3 | 4 | 5 |
| 6. I feel it's no use letting my feelings show around my father               | 1 | 2 | 3 | 4 | 5 |
| 7. My father can tell when I'm upset about something.                         | 1 | 2 | 3 | 4 | 5 |
| 8. Talking over my problems with my father makes me feel ashamed or foolish   | 1 | 2 | 3 | 4 | 5 |
| 9. My father expects too much from me.  | 1 | 2 | 3 | 4 | 5 |
| 10. I get upset easily around my father.                                      | 1 | 2 | 3 | 4 | 5 |
| 11. I get upset a lot more than my father knows about.                        | 1 | 2 | 3 | 4 | 5 |
| 12. When we discuss things, my father cares about my point of view.           | 1 | 2 | 3 | 4 | 5 |



13. My father trusts my judgment.	1	2	3	4	5
14. My father has his own problems, so I don't bother him with mine.	1	2	3	4	5
15. My father helps me to understand myself better.	1	2	3	4	5
16. I tell my father about my problems and troubles.	1	2	3	4	5
17. I feel angry with my father.	1	2	3	4	5
18. I don't get much attention from my father.	1	2	3	4	5
19. My father helps me to talk about my difficulties.	1	2	3	4	5
20. My father understands me.	1	2	3	4	5
21. When I am angry about something, my father tries to be understanding.	1	2	3	4	5
22. I trust my father.	1	2	3	4	5
23. My father doesn't understand what I'm going through these days.	1	2	3	4	5
24. I can count on my father when I need to get something off my chest	1	2	3	4	5
25. If my father knows something is bothering me, he asks me about it.	1	2	3	4	5

**APPENDIX B**  
**CAREER SEARCH SELF-EFFICACY SCALE**

APPENDIX B

CAREER SEARCH SELF-EFFICACY SCALE

Please indicate how confident you are in performing each of the tasks listed below by circling your answer.

HOW CONFIDENT ARE YOU IN YOUR ABILITY TO:

	<u>VERY LITTLE</u>					<u>VERY MUCH</u>				
	0	1	2	3	4	5	6	7	8	9
1.. Identify and evaluate your career values.	0	1	2	3	4	5	6	7	8	9
2. Meet new people in careers of interest.	0	1	2	3	4	5	6	7	8	9
3. Develop an effective cover letter to be mailed to employers.	0	1	2	3	4	5	6	7	8	9
4. Evaluate a job during an interview.	0	1	2	3	4	5	6	7	8	9
5. Conduct an information interview.	0	1	2	3	4	5	6	7	8	9
6. Identify and evaluate your career preferences.	0	1	2	3	4	5	6	7	8	9
7. Clarify and examine your personal values.	0	1	2	3	4	5	6	7	8	9
8. Utilize your social networks to gain employment.	0	1	2	3	4	5	6	7	8	9
9. Identify and evaluate your personal values.	0	1	2	3	4	5	6	7	8	9
10. Market your skills and abilities to an employer.	0	1	2	3	4	5	6	7	8	9
11. Use your social network to identify job opportunities.	0	1	2	3	4	5	6	7	8	9

- |  |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|
| 12. Integrate your knowledge of yourself, the beliefs and values of others, and your career information into realistic and satisfying career planning. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 13. Develop realistic strategies for locating and securing employment.   | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 14. Join organizations that have a career emphasis.  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 15. Develop skills you can use across a lifetime of career planning.   | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 16. Dress in a way that communicates success during a job interview.   | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 17. Identify the resources you need to find in the career you want.  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 18. Contact a personnel office to secure a job interview.  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 19. Know where to find information about potential employers in order to make good career decisions.   | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 20. Solicit help from an established career person to help chart a course in a given field.  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 21. Achieve a satisfying career  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 22. Market your skills and abilities to others.  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 23. Identify and evaluate your personal capabilities.  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 24. Find an employer that will provide you with the opportunities you want.  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

- |  |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|
| 25. Know how to relate to your boss in order to enhance our career.            | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 26. Evaluate the job requirements and work environment during a job interview. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 27. Prepare for an interview.  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 28. Select helpful people at the workplace with whom to associate.             | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 29. Identify your work skills.   | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 30. Organize and carry out your career goals.                                  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 31. Deal effectively with societal barriers.                                   | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 32. Reserach potential career options prior to searching for a job.            | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 33. Deal effectively with personal barriers.                                   | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 34. Develop effective questions for an information interview.                  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 35. Understand how your skills can be effectively used in a variety of jobs.   | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

APPENDIX C  
NEUROTICISM SCALES FROM THE NEO-PI

## APPENDIX C

### NEUROTICISM SCALES FROM THE NEO-PI

**Directions:** There are no "right" or "wrong" answers. The purpose of this questionnaire will be best served if you describe yourself and state your opinions as accurately as possible. Please read each item carefully and write the number that best corresponds to your agreement or disagreement.

STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
1	2	3	4	5

---

- \_\_\_1. I often feel tense and jittery.
- \_\_\_2. I'm an even-tempered person.
- \_\_\_3. Sometimes I feel completely worthless.
- \_\_\_4. I rarely feel fearful or anxious.
- \_\_\_5. I often get angry at the way people treat me.
- \_\_\_6. I have sometimes experienced a deep sense of guilt or sinfulness.
- \_\_\_7. I am easily frightened.
- \_\_\_8. I am not considered a touchy or temperamental person.
- \_\_\_9. I tend to blame myself when anything goes wrong.
- \_\_\_10. I am not a worrier.
- \_\_\_11. I am known as hot-blooded and quick-tempered.
- \_\_\_12. I have a low opinion of myself.
- \_\_\_13. I often worry about things that might go wrong.
- \_\_\_14. It takes a lot to get me mad.

- \_\_\_15. Sometimes things look pretty bleak and hopeless to me.
- \_\_\_16. Frightening thoughts sometimes come into my head.
- \_\_\_17. I often get disgusted with people I have to deal with.
- \_\_\_18. I rarely feel lonely or blue.
- \_\_\_19. I'm seldom apprehensive about the future.
- \_\_\_20. People I work or associate with find me easy to get along with.
- \_\_\_21. Too often, when things go wrong, I get discouraged and feel like giving up.
- \_\_\_22. I have fewer fears than most people.
- \_\_\_23. There are some people I really hate.
- \_\_\_24. I am seldom sad or depressed.
- \_\_\_25. I seldom feel self-conscious when I'm around people.
- \_\_\_26. I have trouble resisting my cravings.
- \_\_\_27. I feel I am capable of coping with most of my problems.
- \_\_\_28. In dealing with other people, I always dread making a social blunder.
- \_\_\_29. I rarely overindulge in anything.
- \_\_\_30. I often feel helpless and want someone else to solve my problems.
- \_\_\_31. It doesn't embarrass me too much if people ridicule and tease me.
- \_\_\_32. When I am having my favorite foods, I tend to eat too much.
- \_\_\_33. I keep a cool head in emergencies.



- \_\_\_34. At times I have been so ashamed I just wanted to hide.
- \_\_\_35. I have little difficulty resisting temptation.
- \_\_\_36. When I'm under a great deal of stress, sometimes I feel like I'm going to pieces.
- \_\_\_37. I often feel inferior to others.
- \_\_\_38. I sometimes eat myself sick.
- \_\_\_39. I can handle myself pretty well in a crisis.
- \_\_\_40. I feel comfortable in the presence of my bosses other authorities.
- \_\_\_41. I am always able to keep my feelings under control.
- \_\_\_42. It's often hard for me to make up my mind.
- \_\_\_43. If I have said or done the wrong thing to someone, I can hardly bear to face them again.
- \_\_\_44. Sometimes I do things on impulse that I later regret.
- \_\_\_45. When everything seems to be going wrong, I can still make good decisions.
- \_\_\_46. When people I know do foolish things, I get embarrassed for them.
- \_\_\_47. I seldom give in to my impulses.
- \_\_\_48. I'm pretty stable emotionally.

APPENDIX D  
COLLEGE SELF-EFFICACY SCALE

APPENDIX D  
COLLEGE SELF-EFFICACY SCALE

HOW CONFIDENT ARE YOU THAT YOU COULD SUCCESSFULLY COMPLETE THE FOLLOWING TASKS?

	NOT AT ALL CONFIDENT					EXTREMELY CONFIDENT				
	0	1	2	3	4	5	6	7	8	9
1. Research a term paper.	0	1	2	3	4	5	6	7	8	9
2. Write course papers.	0	1	2	3	4	5	6	7	8	9
3. Do well on your exams.	0	1	2	3	4	5	6	7	8	9
4. Take good class notes.	0	1	2	3	4	5	6	7	8	9
5. Keep up to date with your schoolwork.	0	1	2	3	4	5	6	7	8	9
6. Manage time effectively.	0	1	2	3	4	5	6	7	8	9
7. Understand your textbooks.	0	1	2	3	4	5	6	7	8	9
8. Get along with roommate(s).	0	1	2	3	4	5	6	7	8	9
9. Socialize with your roommate(s).	0	1	2	3	4	5	6	7	8	9
10. Divide space in your apartment/room.	0	1	2	3	4	5	6	7	8	9

- |  |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|
| 11. Divide chores with your roommate(s). | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 12. Participate in class discussions.    | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 13. Ask a question in class.             | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 14. Get a date when you want one.        | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 15. Talk to your professors.             | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 16. Talk to university staff.            | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 17. Ask a professor a question.          | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 18. Make new friends at college.         | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 19. Join a student organization.         | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

**APPENDIX E**  
**PERMISSION LETTER**

April 10, 1995

V. Scott Solberg, Ph.D.  
Assistant Professor  
Loyola University Chicago  
Mallinckrodt Campus  
1041 Ridge Road  
Wilmette, IL 60091

Dear Dr. Solberg:

In response to your recent request, permission is hereby granted to you to extract 48 items from the NEO Personality Inventory and reproduce up to 100 copies of the adapted form for use in your survey study investigating whether neuroticism mediates the relationship between perceived attachment to mother and father and career search self-efficacy.

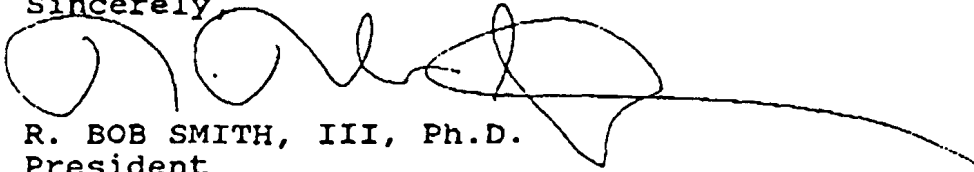
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V. Scott Solberg, Ph.D.  
April 10, 1995  
Page 2

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Sincerely,



R. BOB SMITH, III, Ph.D.  
President

RBS/bv

ACCEPTED AND AGREED:

ACCEPTED AND AGREED:

BY: \_\_\_\_\_  
V. SCOTT SOLBERG, PH.D.

BY: \_\_\_\_\_  
R. BOB SMITH III, PH.D.

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

NO LONGER INTERESTED: INITIAL HERE \_\_\_\_\_, AND RETURN UNSIGNED AGREEMENT.

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## VITA

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Susanne is a candidate for a Master's of Arts degree in Community Counseling from Loyola University Chicago in May of 1995. Susanne graduated from Northwestern University with a B.S. in Human Development and Social Policy in addition to satisfying requirements for a major in Economics in June of 1990.

Susanne completed a year of practicum experience as a individual, marital, and family therapist. Throughout her graduate studies, she also worked as a house manager for a group home of mentally-ill adults. Prior to graduate school, Susanne worked as a Child Care Counselor in a group home of emotionally and behaviorally disturbed adolescents. She also has two years of experience in the business arena.

Susanne is a student member of the Illinois Psychological Association and a student affiliate member of the American Psychological Association. In addition, she is a licensed Illinois real estate referral associate. Susanne serves her community as a Junior Board member of The Lake Forest Symphony, as an active member of The Junior League of Chicago, and as a volunteer for other charitable organizations. She also composes and teaches piano theory and performance privately.

Susanne aspires to pursue her Ph.D. in Counseling Psychology, to continue her research in the role one's family of origin holds upon adult adjustment, and to eventually practice as a licensed psychologist.

## THESIS APPROVAL SHEET

The thesis submitted by Susanne E. Richter has been read and approved by the following committee:

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The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the committee with reference to content and form.

The thesis is, therefore, accepted in partial fulfillment of the requirements for the degree of Master's of Arts in Community Counseling.

4/6/95

Date

  
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