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Influences on career self-efficacy: Examining attachment styles and optimism in a  
moderator model

A thesis submitted in partial fulfillment of the requirements required for the degree of  
Master of Science at Virginia Commonwealth University.

by

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## Abstract

### INFLUENCES ON CAREER SELF-EFFICACY: EXAMINING ATTACHMENT STYLES AND OPTIMISM IN A MODERATOR MODEL

By Anya Elizabeth Moon

A thesis submitted in partial fulfillment of the requirements of the degree of Master of Science at Virginia Commonwealth University.

Virginia Commonwealth University, 2005.

Major Director: Victoria A. Shivy, Ph.D., Department of Psychology

This study examined the influences of attachment style and level of optimism on career self-efficacy. It was hypothesized that level of optimism moderates the relationship between attachment style and career self-efficacy. Participants were 173 college students who completed the Experiences in Close Relationships (ECR; K.A. Brennan, C.L. Clark, & P.R. Shaver, 1998), the Life Orientation Test – Revised (LOT-R; M. Sheier, C. Carver, & M. Bridges, 1994), and the Career Decision-Making Self-Efficacy – Short Form (CDMSE-SF; N. Betz, K. Klein, & K. Taylor, 1996). The moderator model was not supported, but hierarchical regression revealed a positive relationship between optimism and career self-efficacy. Analyses also revealed a negative correlation between avoidant attachment style and career self-efficacy.

## Introduction

Self-efficacy, optimism and attachment long have existed as separate constructs in psychology, and each has been identified as a predictor of goal-directed human behavior. As originally proposed by Bandura (1977), self-efficacious individuals set high goals for themselves and then persist in the behaviors necessary to achieve these goals. Career self-efficacy, or efficacy in the career domain, has been used to predict individuals' confidence in their abilities to complete particular career-related tasks, such as writing a resume or conducting a job search (Hackett & Betz, 1981). Dispositional optimism has been linked to multiple areas in which a positive outlook on one's circumstances may be advantageous. Optimistic individuals, for example, demonstrate faster recovery time from coronary bypass surgery (Scheier & Carver, 1987). Finally, a secure attachment style is instrumental in promoting exploration of the self and one's world (Ainsworth, Blehar, Waters, & Wall, 1987) due to the protective, responsive relationship with the primary caregiver. Attachment styles have been studied in a variety of populations and situations, including adults' work behaviors (Hazen & Shaver, 1990) and college student distress (Lopez, Mitchell, & Gormley, 2002). This study proposes that these constructs interact in a moderator model, in which optimism moderates the relationship between attachment styles and career self-efficacy.

Bandura (1977) first proposed the construct of self-efficacy, his term for the belief individuals have in their ability to complete goals and tasks based on previous experience. Hackett and Betz (1981) then adapted the construct to the career development domain, and introduced the idea of career self-efficacy, or the confidence

individuals have in their ability to complete specific tasks related to occupation. These tasks could include exploring career options, registering for college courses, or performing duties specific to a certain occupation. With the introduction of the Career Decision-Making Self-Efficacy scale (CDMSE; Taylor & Betz, 1983) and the Career Decision-Making Self-Efficacy-Short Form (CDMSE-SF; Betz, Klein & Taylor, 1996), career self-efficacy could be quantified, allowing for more in-depth study of the domain. The creation of these two instruments facilitated the conduct of countless studies examining the impact of career self-efficacy (Betz & Luzzo, 1996). A large part of research on career self-efficacy concerns factors that influence its development, which may include an individual's level of optimism.

Scheier, Weintraub, and Carver (1986) identified optimism and pessimism as personality traits that influence coping. Dispositional optimism was identified as a mediator for general expectancies, or outcomes that are general in nature or are determined by multiple elements. Scheier and Carver (1993) then introduced the idea of dispositional optimism, which is the expectation of general positive outcomes in life. In their expectancy-value model of motivation, Carver and Scheier (1998) identified optimists as those individuals who expect good outcomes, pursue goals with confidence, and persist even if the goal seems daunting. Conversely, they found that pessimists were more likely to expect negative outcomes when pursuing a goal and approached challenges with hesitation and doubt.

Carver and Scheier (1998) drew a parallel between self-efficacy and dispositional optimism. Highly self-efficacious individuals believe that their personal efforts largely

will determine outcomes. Similarly, optimists continue to expect good outcomes because they view their own efforts to remain involved in the pursuit of a goal as determining its positive outcome. In other words, optimists do expect positive outcomes, but they recognize the need to stay involved with tasks through their completion. However, this connection between optimism and self-efficacy has been presented only conceptually. There is a need for empirical validation, as well as exploration into the nature of this relationship. As we shall see, another possible variable that plays a role in this relationship is attachment style.

Bowlby (1969/1982) introduced the concept of attachment within the field of lifespan development. According to Bowlby, individuals seek to maintain close relationships across the life span that mirror early relationships with primary caregivers. These relationships with early caregivers then shape an individual's stance toward others and, ultimately, aspects of their cognitive and affective development. Feelings of security or threat in the early relationship with the primary caregiver influence the child's ability to cope with life stressors, resulting in either a resilient style or a vulnerable style of coping.

Ainsworth et al. (1978) hypothesized three attachment styles known as secure, anxious-ambivalent and avoidant, via the "Strange Situation" test for infants and caregivers. Brennan, Clark and Shaver (1998) subsequently used the two dimensions identified by Ainsworth et al. (1978), to examine adult attachment styles. Adult attachment styles define the attachment styles that adults use in romantic, or other close

relationships. The emotional response to attachment is measured along the anxiety continuum, and the behavioral response is measured along the avoidance continuum.

After this brief introduction to career self-efficacy, optimism and attachment, it may be helpful to outline the proposed relationship among them. Individuals high in career self-efficacy will continue to identify and pursue challenging career goals because of their past successes. Likewise, optimists continue to pursue goals with confidence because they expect general positive outcomes. The hypothesis then follows that optimistic individuals will have higher career self-efficacy due to the fact that they expect good outcomes.

However, what role does attachment style play in the relationship between optimism and career self-efficacy? As conceptualized by Bowlby (1969/1982), the feelings of security or threat generated by the relationship with the primary caregiver impact children's ability to cope with life stressors. As children grow and develop they face many stressors, including career obstacles. The methods chosen to deal with these stressors partially may be determined by individuals' levels of optimism and their attachment styles. If individuals expect good outcomes and also feel secure in their relationships with their primary caregivers, they may be more willing to engage in challenges. This study seeks to determine the contribution of dispositional optimism and attachment styles in the formation of career self-efficacy.

## Review of Literature

The following section will provide a more thorough review of the literature surrounding each of the three constructs presented in the introduction. The first section will provide a synthesis of self-efficacy and career self-efficacy. The second section will present a review of the pertinent studies concerning dispositional optimism. Finally, the third section will present the literature focusing on the relationship between attachment styles and work.

### *Self-efficacy*

Twenty-five years ago, Bandura and Adams (1977) stated, “Perceived self-efficacy affects people’s choice of activities and behavioral settings, how much effort they expend and how long they will persist in the face of obstacles and aversive experiences” (pp. 287-288). Given the potential application of this construct, researchers have expanded greatly upon Bandura’s primary work. These researchers especially have been interested in domain-specific areas of self-efficacy, such as academic self-efficacy (Chemers, Hu, & Garcia, 2001) social self-efficacy (Solberg & Villarreal, 1997), and career self-efficacy (Hackett & Betz, 1981).

A formalized view of career self-efficacy comes from the Social Cognitive Career Theory (SCCT) by Lent, Brown, and Hackett (1994). This theory introduced a new facet of career self-efficacy, outlining the interactions of several influences in a person’s life. As identified by Bandura (1986), there are four sources that influence an individual’s self-efficacy: personal performance accomplishments, vicarious learning, social persuasion, and physiology states and reactions. As related to career self-efficacy, a

person's individual career accomplishments will influence his/her future career decisions. Similarly, watching someone else complete a career task successfully may prompt an individual to perform the same task in a similar fashion.

Lent et al. (1994) developed the SCCT with the notion that three variables, the environment, the person and his/her behavior, all interact with each other in a reciprocal fashion. For example, an environmental factor such as financial constraints may serve as a barrier to a person who is pursuing higher education; however, how the individual chooses to interact with environmental factors, including barriers, is his or her choice. One individual may decide that financial demands are too great to pursue a four-year college degree. Another individual may face the same financial barrier but choose, instead, to pursue scholarship opportunities, part-time work, or a work-study program.

To apply the theory to career self-efficacy, Lent, Brown and Hackett (2000) specifically focused on the interaction among environment, career barriers and career development. The SCCT posits that individuals are more than just bystanders; instead, they are active decision-makers. Lent et al. (2000) recognized that individuals may be affected by environmental variables beyond their control. He stressed that the manner in which people choose to acknowledge and confront these variables also offers the potential for personal control and high self-efficacy in the occupational arena.

While SCCT theory promotes the need to understand how individuals view their environment, as well as their perceptions of environmental barriers, Lent et al. (2000) believed that the various domain-specific areas of self-efficacy play a large role in how environmental variables are viewed. For example, a person with high social self-efficacy

may view a social-environmental variable, such as an entrance exam, as challenging but still may feel confident in his or her ability to overcome this barrier. However, a different person may be low in academic self-efficacy and view the entrance exam as an insurmountable obstacle. Due to the multi-faceted nature of environmental variables (i.e., cultural, social, economical, familial, academic), it is difficult to identify the degree to which each of a number of variables is involved in career self-efficacy.

Bandura also has begun to recognize the application of the self-efficacy construct to the career domain. Bandura, Barbaranelli, Caprara, and Pastorelli (1996) identified goal-setting behaviors among high and low self-efficacious individuals that can be extended to apply to career self-efficacy. In a study with Italian adolescents, he and his colleagues found that individuals with low self-efficacy continue to set lower goals for themselves because they do not believe they can achieve greater goals. Bandura et al. (1996) also proposed that academic self-efficacy can impact career self-efficacy significantly, as educational goals often carry over into occupational goals. They found that students who experience success with educational goals consider more career options, show greater interest in these options, and set higher educational goals for themselves so that they may achieve their career goals. Bandura et al. (1996) also demonstrated that students with greater motivation to achieve their academic goals also show greater persistence in the face of setbacks. Finally, the researchers found that students with low academic self-efficacy set lower academic goals for themselves and are not motivated to achieve these goals. These students showed little interest in the possible

careers available to them and gravitated instead toward careers that were easily obtainable and unchallenging (Bandura et al., 1996).

Pastorelli et al. (2001) proposed that self-efficacy is not a constant for each individual but, rather, plays a large role in the interaction of the person, the environment and behavior. They argued that people with high self-efficacy will set high goals for themselves, always challenging themselves to extend or improve their performances. For example, as young children grow and experience the world, interactions with tasks, parents, and peers shape their social self-efficacy. As they come to understand and exert control over their environment, most learn to use behaviors that elicit desired results. These positive interactions enable the children to set higher social goals for themselves and to venture into unknown environments. Thus, social self-efficacy influences the social goals individuals set for themselves which, in turn, influences social self-efficacy.

Lent et al. (2000) encouraged further research into the various factors that impact individuals' beliefs that they can succeed when faced with career barriers. Among the possible variables that influence career self-efficacy is optimism. This next section will outline the ways in which optimists and pessimists differ, outlining the proposed relationship between dispositional optimism and career self-efficacy.

### *Optimism*

The construct of dispositional optimism was developed in the context of coping research. In the early 1980's, researchers focused on the ways in which people dealt with stress, and the factors that influenced successful and unsuccessful coping strategies. Scheier and Carver (1993) then further differentiated the construct by identifying

dispositional optimism, or the expectation of positive outcomes overall, from general optimism, defined as hopeful expectations in a given situation. Scheier et al. (1986) believed that the effects of optimism may have implications for determining outcomes in situations in which individuals have no prior experience or in situations that develop over time.

Scheier and Carver (1987) continued to explore relationships between optimism and other variables, including stress. They hypothesized that optimism mediates stress, or impacts how individuals' response to stress, and proposed that optimists and pessimists employ different coping strategies. For this research they used the coping terms problem-focused coping and emotion-focused coping, as defined by Folkman and Lazarus (1980). Problem-focused coping involves taking action to remove or navigate around a stressor, whereas emotion-focused coping involves an effort to reduce or eliminate the emotional distress associated with the stressor. While both strategies can be implemented together, problem-focused coping is used more often in situations where individuals believe that constructive actions can result in a positive outcome. Emotion-focused coping is utilized more often in situations in which the individual believes the situation must be endured, and therefore efforts are focused on the emotional distress caused by the experience (Folkman & Lazarus, 1980).

From these findings Scheier and Carver (1987) concluded that when individuals are confronted with impediments to their daily goals, they pause to decide whether or not to continue in the face of these impediments, a situation they termed "interruption and expectancy assessment" (p. 174). When faced with a situation in which the goal still

seems attainable, optimists presumably would deal more effectively with these impediments than would pessimists. Based on their generalized expectancy for favorable outcomes, optimists are more likely to deal with setbacks in an effective manner.

Scheier and Carver (1987) conducted studies in hospitals on patients recovering from coronary bypass surgery, demonstrating the link between optimism and physical health. The results indicated that optimists reached certain post-surgery medical goals faster than did others. They also found that optimists recovered faster and showed fewer signs of physical distress. Scheier and Carver (1987) believed that this was due to the optimist's inherently positive view of generalized expectancies. Before surgery, optimists were much more likely to set goals for the recovery period, and they were less likely to dwell on their emotional distress. They also differed in terms of information-seeking behaviors. In particular, optimists sought as much information as possible about the procedure and the recommended recovery treatments. Optimism since has been linked to positive outcomes in breast cancer research (Carver et al., 1993), AIDS risk among gay men (Taylor et al., 1992), and postpartum depression (Carver & Gaines, 1987).

In general, the results from several studies (Scheier et al., 1986; Scheier & Carver, 1987) suggest that optimists strive to deal directly with goal impediments and engage in less denial. When the impediment is seen as controllable, optimists will use a strategy of acceptance versus resignation, in which they decide either to continue to pursue the original goal or to resign the original goal. Optimists also are more likely to engage in a coping strategy known as "tunnel vision," (Scheier & Carver, 1987, p. 190) in which

individuals suppress competing activities in order to focus on the goal at hand. The optimistic patients from previous studies engaged in tunnel vision, gathered as much information as possible before surgery, and they also began planning their recovery strategy before the surgery occurred. It is intriguing to consider whether these findings can be generalized to other life challenges. For example, when faced with career decisions, it would seem likely that optimists may engage in these strategies, focus on gathering as much information as possible about the career task and then focus on strategies to meet the career challenge. Optimists may utilize these strategies of information-gathering and planning in other situations, such as changing careers, exploring a new career, or searching for a job.

The reinforcing nature of coping strategies also can be likened to the cyclical nature of self-efficacy. Optimists are thought to engage in and return to problem-focused coping, because they have found it to be effective in the past. As Bandura (1986) outlined, individuals shape their self-efficacy by continuing to use strategies that have proven to be effective in the past. If optimists generally expect good outcomes, and use problem-focused coping in an attempt to achieve these good outcomes, it seems they are in a cycle of identifying a stressor, utilizing problem-focused coping and achieving a good outcome. Likewise, highly self-efficacious individuals utilize a cycle of identifying problems similar to those they have encountered in the past, and utilizing strategies that have been effective in the past. Both self-efficacy and dispositional optimism seem to have implications for functioning in the face of setback or unpredicted challenges. Yet,

studies that relate career self-efficacy and dispositional optimism have not been conducted.

### *Attachment Styles*

Attachment theorists hypothesize (Main, 1990) that a child whose caregiver maintains a reliable, protective, and responsive relationship provides a safe and secure environment in which the child feels comfortable exploring and mastering developmental challenges. This initial relationship with the primary caregiver is thought to promote interdependence. Children maintain a sense of separateness within the context of connection to the caregiver, which allows continued life exploration. Conversely, children whose caregivers do not respond reliably learn either to establish a relationship based on persistent close proximity to the caregiver or on persistent avoidance of the caregiver.

Bowlby (1969/1982) believed that the relationship established between the infant and caregiver serve as a template for all close relationships. This model of close relationships contains the individual's feelings about his/her own self-worth, as well as expectations of the trustworthiness of others. When confronted with a threatening or stressful situation, individuals rely on this basic schema of behavioral and cognitive cues without fully appraising the situation. Thus, this internal appraisal method impacts the risks individuals will take, how they will react to a stressor, and the amount of cognitive flexibility they will employ when faced with a challenge. This model of attachment is hypothesized also to influence how individuals perceive situations and their experiences within the situation.

Ainsworth et al. (1978) further expanded the attachment construct by identifying three infant attachment styles: secure, anxious-ambivalent and avoidant. Brennan et al. (1998) later isolated two dimensions identified by Ainsworth et al. (1978), anxiety and avoidance, to examine adult attachment styles. Avoidant individuals display discomfort with intimacy and interpersonal closeness, and anxious individuals are those marked by chronic fear of interpersonal rejection and abandonment. They further identified those individuals with high scores on both or either dimension as possessing insecure attachment, whereas those individuals with scores low in both dimensions are securely attached.

Attachment styles impact how children respond in times of stress. Mikulincer and Florian (1998) examined how the different attachment styles affect how individuals respond to stress. They viewed a secure attachment style as an advantage that may help individuals cope with challenges. Insecure attachment is considered to be a risk factor that can detract from an individual's resilience in times of stress. Insecurely attached individuals are more likely than their securely attached counterparts to experience difficulties monitoring and modulating their affective reactions to stressful events. Thus, they may overreact or suppress feelings, leading to problems managing affect related to stress.

Lopez and Gormley (2002) examined the stability and change of adult attachment styles in undergraduate students over the first year of college. They found that maintaining a secure style of attachment over the first year was associated with improvement in abilities to regulate negative emotions. Negative emotions can interfere

with effective coping, so those students with secure attachment were at an advantage over students who experienced a loss of secure attachment. Similarly, the loss of a secure attachment style was associated with a decline in the abilities to regulate negative emotions. Finally, students identified as having insecure attachment styles were found to employ negative coping strategies, such as denial, avoidance, escapism and lack of persistence. These poor coping strategies seemed to put the insecurely attached students at risk for early dropout, as well as other difficulties throughout the first year.

Shifting the discussion to career-specific phenomena, many studies have been completed that examine the relationship between attachment styles and career development. Erikson (1968) first speculated on the linkage between attachment and career exploration. He reported that when securely attached adolescents begin to separate from their parents they are well-equipped to explore identity options, create a unique sense of self, and formulate individual vocational goals. Additionally, he posited that individuals who are not securely attached may demonstrate career indecision as a young adult in an effort to maintain a close relationship with their parents. Kenny (1990) also identified a positive correlation between parents who help foster their children's autonomy and subsequent career planning behaviors in a sample of female college students. With a secure attachment foundation, college students felt comfortable exploring career options and career plans.

Many researchers in the career domain have focused on the relationship between attachment and career development variables, such as career indecision, career search self-efficacy, and vocational exploration. For example, Blustein, Walbridge, Friedlander,

and Palladino (1991) examined parental attachment in an undergraduate population and found that individuals who experience both attachment to and independence from their parents seem most able to commit to career choices. In addition, Ryan, Solberg, and Brown (1996) found that a positive relationship existed between parental attachment and career search self-efficacy for community college students. They believed that this was due to the fact that a secure attachment style is associated with confidence in employing adaptive skills and behaviors. Tokar, Withrow, Hall, and Moradi (2003) recently completed a study examining the relationship between attachment and career indecision in an undergraduate population. The results indicated a positive relationship between attachment anxiety and career indecision.

Attachment also has been examined in adult populations, including how attachment styles manifest themselves in the workplace. Florian, Mikulincer, and Bucholtz (1995) found that securely attached individuals report higher levels of social support in their work environments. Such individuals are likely to seek out social support when they are distressed, and they report benefiting from the support of others. Kemp and Neimeyer (1999) reported that individuals with anxious attachment styles also were likely to seek support during times of distress, but this seemed to result in their becoming overwhelmed by their feelings. In other words, anxiously attached individuals may seek social support at work, but the very support they seek may lead to an increase in feelings of confusion and overwhelm. Mikulincer, Florian and Weller (1993) found that individuals with avoidant orientations were least likely to seek support when distressed and, instead, distanced themselves from others.

Schirmer and Lopez (2001) then examined the relationship between perceived levels of supervisor support, attachment styles and work strain. Their initial findings supported the hypothesis that workers with securely attached styles reported higher levels of supervisor support, less work strain, and higher levels of job satisfaction. On the other hand, workers with anxious attachment styles reported higher levels of work stress and lower levels of supervisor support. In addition to lower perceptions of supervisor support, these same workers also were likely to react negatively to low perceived social support in their work environment. Workers with avoidant styles, however, reported low perceived support like their anxiously attached colleagues, but were less likely to respond in a negative manner. These results indicate that a secure attachment style is positively correlated with job satisfaction, whereas anxious and avoidant attachment styles are correlated with decreased perception of support in the workplace and lower levels of job satisfaction.

Hazen and Shaver (1990) also explored the relationship between attachment styles and relationships in the workplace. They argued that when children form attachments exploration involves maintaining a relationship with a caregiver, or protector, while moving away from the caregiver to explore the world. Similarly, adults achieve interdependence by maintaining an attachment with a figure in romantic love, while also moving away from this figure to explore and develop in the world of work. Because attachment needs must be met before exploration can commence adults, like children, may seek out a protector before venturing into the unknown.

Using Ainsworth et al.'s (1978) three styles of infant attachment, Hazen and Shaver (1990) studied the functions work plays for individuals who utilize different attachment styles. Results indicated that securely attached individuals reported high levels of work satisfaction and confidence that their co-workers evaluated them highly. They were the group least likely to put off work, to fear rejection from coworkers and to have difficulties completing tasks. Anxious/ambivalent individuals, on the other hand, reported feelings of job insecurity, lack of appreciation by co-workers and lack of deserved promotions. They felt motivated by co-worker approval and worried about rejection from others. Avoidantly attached individuals, while reporting job satisfaction, also reported dissatisfaction with co-workers. They felt nervous when not working, and they indicated that work did not leave much time for close relationships.

Hazan and Shaver's (1990) results help illuminate the relationship between work and attachment styles. Securely attached individuals may function well at work, in part, because they are not distracted by unmet attachment needs. Secure individuals are able to enjoy the rewards of work and exploration because they do not use work as a means of pleasing or avoiding others. Anxious/ambivalent workers use work and exploration as a way to attract attention and approval, seeking to satisfy their unmet attachment needs; however, when exploration, or work, is a constant quest for approval, the individual is left feeling vulnerable and underappreciated. Avoidant workers use work as an escape from the feelings of anxiety that come from unmet attachment needs. They use work as a way to keep busy, avoiding uncomfortable interpersonal interactions. Thus, they tend to

seek environments in which they can work alone, and they will often work compulsively to avoid vacations, relationships, and anxiety (Hazen & Shaver, 1990).

Ketterson and Blustein (1997) offered support for Hazen and Shaver's metaphor that work for adults is like exploration for children. Using an undergraduate student sample, they found that a secure attachment relationship between college students and their parents was positively correlated with environmental exploration. They further suggested that a secure relationship offers the child the support he or she needs to explore the external world. Felsman and Blustein (1999) added to these findings, reporting that college students with peer attachments and a secure attachment to their mothers were more likely than their unattached counterparts to explore their environment and move toward committing to their career choices. These two studies emphasize the importance the attachment relationship plays for environmental exploration, career exploration, and career decision-making.

The previously mentioned studies use attachment styles to explain behaviors. However, attachment theory also can help to explain characteristics of the individuals that utilize them. Mikulincer (1998) found that securely attached individuals are more flexible and open-minded when processing new information. They tend to be better at accommodating schemas to include new information, as opposed to assimilating information into an already existing schema. This means that they can more easily incorporate and utilize new information, as opposed to incorporating new information only in terms of previously existing information. This allows securely attached individuals to process new information more fluidly.

Mikulincer (1998) also found that securely attached individuals show greater tolerance in stressful, ambiguous or distressing situations. Anxious/ambivalent or avoidant individuals, on the other hand are more rigid in stressful or ambiguous situations, and they also have a more difficult time adapting to new, distressing stimuli (Mikulincer, 1998). Similarly, Lopez (1996) found that securely attached individuals demonstrate the ability to use a wider range of flexible cognitive processes when faced with a stressor. Generally, the findings support the idea that securely attached individuals are better able to process and incorporate new information and perform more adaptively in stressful situations than are their anxious/ambivalent or avoidant counterparts.

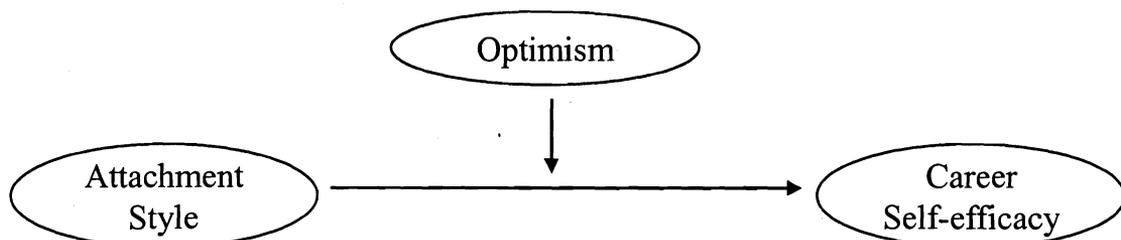
In some respects, the behaviors used to describe anxious/ambivalent and avoidant individuals are reminiscent of the personality trait neuroticism. Tokar et al. (2003) discuss this possibility as it relates to adult attachment styles. Specifically they point out that attachment styles and personality traits have been linked in previous research (Shaver & Brennan, 1992), and that perhaps neuroticism is linked to career indecision. They further suggest that attachment anxiety may be a manifestation of neuroticism, which then leads to career indecision.

The studies just reviewed demonstrate that attachment styles, dispositional optimism, and career self-efficacy each have implications for how individuals approach challenges. Attachment styles may contribute to how individuals deal with the negative affect resulting from increased stress (Mikulincer, 1998; Lopez, 1996; Lopez & Gormley, 2002). Dispositional optimism may account for some of the appraisal methods and strategies, such as tunnel vision, that individuals employ when faced with unexpected

challenges. Finally, career self-efficacy measures the confidence an individual has in his/her ability to complete tasks specifically related to career and to persevere in the face of career challenges based on their past successes and failure. This study will focus on the contributions that dispositional optimism and attachment style make toward an individual's level of career self-efficacy.

*Self-efficacy, optimism and attachment: A moderator model*

The proposed model shown in Figure 1 suggests that optimism moderates the effect that attachment style has on career self-efficacy. In a moderator model, a relationship between the independent variable and the dependent variable exists, but is influenced by the presence of the moderator variable (Frazier, Tix, & Barron, 2004). Holmbeck (1997) identifies the function of the moderator variable as affecting the relationship between two variables in such a way that the nature of the independent variable's impact varies according to the level of the moderator. The moderator affects the nature of the independent variable's impact, thereby impacting the level of the dependent variable. In other words, the moderator variable influences the nature of the predictor's effect on the dependent variable.



*Figure 1.* Proposed relationship among attachment style, optimism and career self-efficacy.

Research has shown that a secure attachment style contributes to an individual's ability to explore during career development, employ flexible strategies during stressful times, and adapt to new stimuli (Felsman & Blustein, 1999; Mikulincer, 1998). Anxious or avoidant individuals do not feel comfortable exploring career options, feel threatened in new, uncertain environments, and invoke more rigid responses in the face of distressing stimuli (Mikulincer, 1998). Clearly attachment styles greatly impact many aspects of career, including career exploration, career development, and responses to work.

The introduction of levels of optimism modifies the model that exists between attachment styles and career self-efficacy. According to Scheier and Carver (1993) optimistic individuals generally expect good outcomes. They also report that when faced with an impediment toward a career goal, optimists not only expect favorable outcomes, but they also employ strategies to help them achieve their goals. Because career self-efficacy is formed based on previous successes or failures, optimists most likely would have high career self-efficacy since they expect favorable outcomes and they would also employ problem-focused strategies to deal with career stressors.

Attachment styles are formed early in childhood, so it is likely that optimism moderates the relationship between attachment styles and career self-efficacy. The impact that attachment has on career self-efficacy will be influenced by the individual's level of optimism, thereby identifying optimism as the moderator variable as defined by Holmbeck (1997). Specifically, it is hypothesized that a secure attachment style will correlate with high career self-efficacy if a high level of optimism is present. If a secure

attachment style is present in conjunction with a low level of optimism the hypothesized result is moderate to low career self-efficacy. Avoidant or anxious/ambivalent attachment styles moderated by a low level of optimism will likely correlate with low career self-efficacy, as will avoidant or anxious/ambivalent attachment styles moderated by a high level of optimism.

## Method

### *Participants*

Participants were students enrolled in undergraduate psychology courses during the summer session at a large Southeastern university. The total sample included 177 students, but four cases were not used due to missing data. Of the remaining 173 cases, 76.3% were female. Ages for the sample ranged from 17 to 62, with a mean age of 24.57 ( $SD = 6.66$ ). The ages were representative of a college population, with 55.9% of the population falling between the ages of 17 and 22. In terms of ethnicity, most participants identified as Caucasian, 56.6% of the sample. The remaining sample was 24.3% African American, 9.8% Asian American, 6.9% Other, and 1.2% Latino/a. These demographics roughly match those of the university's undergraduate population, which is 64% Caucasian, 22% African American, 8% Asian/Pacific Islander, and 2% Latino/a.

### *Procedure*

Students volunteered to complete the paper and pencil survey packets, and some classes received extra credit for participating, at the discretion of the professor. Students recorded their responses on scantron forms. The order of the measures was counterbalanced to reduce order effects. To insure higher quality data, students were stopped after finishing each measure within the survey packet. Proctors then read the directions for the next measure and oriented students to the new scale before allowing them to proceed to the next measure. Students provided demographic information, including age, gender, and ethnicity. They also indicated whether or not they had

decided on a college major, and what major they had chosen if they answered “yes.”

Participants also recorded their intended occupation.

### *Measures*

Participants completed three measures, one addressing dispositional optimism, one measuring attachment styles, and one identifying level of career self-efficacy. Each measure is discussed below. Intercorrelations among the variables are found in Table 1. Descriptives for the measures are found in Table 2.

*Optimism.* The Life Orientation Test-Revised (LOT-R; Scheier, Carver, & Bridges, 1994) was used to assess dispositional optimism. The instrument contains 10 items, two of which are fillers that are not scored. Participants indicate the level of agreement they feel for items such as, “In uncertain times, I usually expect the best.” Items are scored on a 5-point scale from 1 (strongly disagree) to 5 (strongly agree). Summing the responses to the items generates an individual’s optimism score. According to Scheier et al. (1994), the test-retest reliability coefficient for this measure is .79 in a four-week period. The LOT-R has demonstrated strong validity and reliability in the career domain and has been used in reference to career-related variables, such as career planning and exploration (Creed, Patton, & Bartrum, 2002). Cronbach’s alpha for the study was .81.

*Attachment.* The Experiences in Close Relationships (ECR; Brennan et al., 1998) was created to measure adult attachment styles, which are measured on two subscales, Avoidance and Anxiety. The Avoidance subscale measures the extent to which individuals feel discomfort in their relationships and includes items such as, “I try to

avoid getting too close to my partner.” The Anxiety subscale measures fear of abandonment and includes items such as, “I need a lot of reassurance that I am loved by my partner.” Both of these dimensions are the foundation for nearly all adult attachment measures; however, Brennan et al. (1998) argue that their scale is more precise because the two dimensions are analogous to those first proposed by Ainsworth et al. (1978). The 36 items are rated on a 7-point scale from 1 (disagree strongly) to 7 (agree strongly). Participants receive scores for both subscales. The Anxiety scale has an internal reliability coefficient of .91, and the Avoidance scale has an internal reliability coefficient of .94 (Brennan et al., 1998). Cronbach’s alpha analysis for the study revealed an alpha of .92 for the Anxiety scale, and an alpha of .93 for the Avoidant scale.

*Career self-efficacy.* The Career Decision-Making Self-Efficacy Scale-Short Form (CDMSE-SF; Betz et al., 1996) is the short form of the Career Decision-Making Self-Efficacy Scale (Taylor & Betz, 1983) The CDMSE-SF is designed to measure an individual’s career decision-making self-efficacy. Participants are asked to identify their level of confidence from 1 (no confidence at all) to 10 (complete confidence) for 25 items. A five-point scale was used for the current study to accommodate the scantron forms. The items are statements about career such as, “How confident are you that you could persistently work at your major or career goal even when you get frustrated or discouraged?” Scores are computed by summing the responses to the items. The test-retest reliability coefficient for the instrument is .83 over a six-week period, and the internal reliability coefficient is .94, nearly as high as the original measure. In fact, because the shorter version of the scale is based on the same structure as the longer

version, the psychometrics of the shorter scale have demonstrated comparable or better properties than the original with half the length (Betz et al., 1996). Cronbach's alpha for the study revealed an alpha of .91.

## Results

### *Preliminary Analyses*

*Analysis of Variance.* A one-way ANOVA was used to test for order effects between the two versions of the data collection booklet. The ANOVA revealed no significant effects of the version on anxious attachment scores,  $F(1,171) = .42, p > .05$ , or on avoidant attachment scores,  $F(1,171) = .07, p > .05$ . The analysis also revealed no significant effects of the version on optimism scores,  $F(1,168) = .532, p > .05$ , or on career self-efficacy scores,  $F(1,169) = .72, p > .05$ .

*Correlational analyses.* Correlational analyses executed for all variables and are listed in Table 1. Results indicated that optimism and career self-efficacy were positively correlated and career self-efficacy was negatively correlated with both avoidant attachment style and anxious attachment style. The same relationship existed between optimism and both the attachment variables. Optimism was negatively correlated with avoidant attachment and was also negatively correlated with anxious attachment. As is typically seen in the literature (Brennan et al., 1998), attachment styles were also positively correlated to each other,  $r(173) = .29, p < .01$ . An alpha level of .01 was used for all statistical tests.

Table 1.

*Intercorrelations Among All Study Variables*

	CDMSE-SF	LOT-R	ECR - AV	ECR - AX	Gender	Ethnicity	Age
CDMSE-SF							
LOT-R	.32**						
ECR - AV	-.25**	-.23**					
ECR - AX	-.26**	-.42**	.29**				
Gender	.08	.06	-.18**	.10			
Ethnicity	-.04	-.00	-.10	.17	-.02		
Age	.04	.01	.06	-.05	-.09	-.13	

Note: LOT-R = Life Orientation Test-Revised; ECR AX = Experiences in Close Relationships, Anxiety subscale; ECR AV = Experiences in Close Relationships, Avoidance subscale.

\*\* Correlation is significant at the .01 level (2-tailed).

Table 2.

*Mean, Standard Deviation, Range, and Cronbach's Reliability Alpha for Study Variables*

Study Variable	<i>M</i>	Range	<i>SD</i>	$\alpha$
Age	24.57	17 – 62	6.66	--
LOT-R	21.28	8.00 - 30.00	4.94	.81
ECR - AX	2.56	1.00 - 4.78	.77	.92
ECR - AV	2.22	1.00 - 4.67	.77	.93
CDMSE-SF	102.13	57.00 - 124.00	13.11	.91

Note: LOT-R = Life Orientation Test-Revised; ECR - AX = Experiences in Close Relationships, Anxiety subscale; ECR - AV = Experiences in Close Relationships, Avoidance subscale.

Correlations between participant age and optimism, career self-efficacy and attachment styles did not reveal any significant differences. However, based on the bimodal distribution of the population, additional bivariate correlations were executed after dividing the sample into participants who were 17-22 years old and participants who were 23-62 years old. Results are presented in Table 3. Dichotomizing the age groups revealed differences between the younger and older students. For both groups a positive correlation between optimism and career self-efficacy existed; however, there were differences between the groups for attachment styles and career self-efficacy. The younger participants had a negative correlation between anxious attachment and career self-efficacy,  $r(93) = -.28, p < .01$ , whereas the older participants revealed a negative

correlation between avoidant attachment and career self-efficacy,  $r(78) = -.35, p < .01$ .

Analyses for both sets of participants also revealed differences in the relationship between optimism and attachment style. For younger participants, optimism was negatively correlated only with anxious attachment,  $r(94) = -.51, p < .01$ . For older participants, optimism was negatively correlated with both anxious attachment,  $r(76) = -.30, p < .01$ , and avoidant attachment,  $r(76) = -.35, p < .01$ . An alpha level of .01 was used for all statistical tests.

Table 3.

*Intercorrelations Between Study Variables for Younger and Older Participants*

	CDMSE-SF	LOT-R	ECR - AV	ECR - AX
CDMSE-SF	-----	.23	-.35**	.22
LOT-R	.40**	-----	-.35**	-.30**
ECR - AV	-.16	-.14	-----	.36**
ECR - AX	-.28**	-.51**	.24	-----

Note: The top half of the correlation matrix reflects the results for the participants 23 years old and older ( $N = 78$ ). The bottom half is for the participants 17-22 years old ( $N = 95$ ).

\*\* Correlation is significant at the .01 level (2-tailed).

*Analysis of Variance.* The correlation between gender and avoidant attachment style was explored using a one-way ANOVA. The ANOVA revealed a significant effect of gender on avoidant attachment scores,  $F(1,171) = 5.47, p < .05$ . The female scores for

avoidant attachment were significantly lower than the avoidant attachment scores for the male participants.

### *Hypotheses Testing*

Procedures used for testing the hypothesized moderator model followed the outline proposed by Holmbeck (1997). As a reminder, a moderator model exists when there is a relationship between the predictor variable and the outcome variable, but this relationship is influenced by the presence of the moderator variable. The moderator variable affects the relationship between the two variables in such a way that the nature of the independent variable's impact varies according to the level of the moderator variable. It was hypothesized that the impact that attachment has on career self-efficacy will depend on the level of optimism. Casewise diagnostics were also analyzed using Cook's D to identify outliers. One outlier was identified, and this case was not included in regression analyses.

Hierarchical regression analyses were executed to determine the relationship among career self-efficacy, attachment style, and optimism. The predictor variables were centered prior to computing interaction terms. In the first set of analyses, all predictor variables, including anxious attachment, avoidant attachment, and optimism, were entered in the first step. Three two-way interaction terms, including avoidant attachment X optimism, anxious attachment X optimism, and avoidant attachment X anxious attachment, were entered in the second step. In the third step, the three-way interaction term, avoidant attachment X anxious attachment X optimism was entered. As seen in Table 4, there were main effects for optimism and career self-efficacy that were

significant at every step of the regression. There also was a main effect for avoidant attachment style and career self-efficacy in the first and final steps. The overall model, however, was not significant.

A second regression analysis was executed, with the variables entered in the same order as the first analysis; however, in this model age, ethnicity, and gender were entered in the first step. Table 5 displays the results of this model. Again, a main effect for optimism and career self-efficacy was significant. The same main effect for avoidant attachment style and career self-efficacy was also evident for this regression. The overall model did not significantly predict career self-efficacy.

The failure of the overall model to reach significance demonstrates that the hypothesis that optimism moderates the relationship between attachment style and career self-efficacy was not supported. However, the regression analyses did provide support for two predictors for career self-efficacy. First, a main effect was identified for optimism and career self-efficacy. This means that optimism was a significant predictor of career self-efficacy, indicating that as the level of optimism increased, the level of career self-efficacy also increased. Second, avoidant attachment was also identified as a significant predictor of career self-efficacy. The regression analyses indicated that an inverse relationship existed between the two variables, so as level of avoidant attachment increased, level of career self-efficacy decreased.

Table 4.

*Regression Analysis Predicting Career Self-efficacy from Hypothesized Moderators**(N=172)*

Step	$R^2$	$\Delta R^2$	$\Delta F$	$B$	$SE$ (First step)	$B$	$B$
1. ECR - AV	.14	.14	9.17	-2.57	1.32	-.15**	-2.45
LOT-R				.70	.22	.26*	.81
ECR - AX				-1.59	1.42	-.09	-1.50
2. ECR - AV x LOTR	.17	.029	1.85				-.08
ECR - AX x ECR - AV							3.16
ECR - AX x LOTR							-.16
3. ECR - AX x ECR - AV x LOTR	.18	.01	1.72				

Note: ECR - AV = ECR, Avoidance subscale; LOTR = Life Orientation Test Revised;

ECR - AX = ECR, Anxiety subscale.

\*  $\beta$  (Standardized Beta Weight) significant at  $p < .01$ . \*\*  $\beta$  (Standardized Beta Weight)

significant at  $p < .05$ .

Table 4 continued.

*Regression Analysis Predicting Career Self-efficacy from Hypothesized Moderators**(N=172)*

Step	<i>SE</i> (Second step)	$\beta$	<i>B</i>	<i>SE</i> (Final step)	<i>B</i>
1. ECR - AV	1.32	-.14	-2.96	1.38	-.17**
LOTR	.23	.30*	.90	.24	.34*
ECR - AX	1.46	-.09	-1.68	1.46	-.10
2. ECR - AV x LOTR	.32	-.02	-.08	.32	-.02
ECR - AX x ECR - AV	1.92	.14	2.47	1.99	.11
ECR - AX x LOTR	.26	-.05	-.10	.27	-.03
3. ECR - AX x ECR - AV x LOTR			-.39	.294	-.12

Note: ECR - AV = ECR, Avoidance subscale; LOTR = Life Orientation Test Revised;  
ECR - AX = ECR, Anxiety subscale.

\*  $\beta$  (Standardized Beta Weight) significant at  $p < .01$ . \*\*  $\beta$  (Standardized Beta Weight)  
significant at  $p < .05$ .

Table 5.

*Regression Analysis Predicting Career Self-efficacy, controlling for age, gender, and ethnicity (N=172)*

Step	$R^2$	$\Delta R^2$	$\Delta F$	$B$	$SE$ (First step)	$\beta$	$B$
1. Age	.01	.01	.76	.08	.15	.04	.08
Gender				.295	2.41	.10	2.04
Ethnicity				-.64	.97	.05	-.48
2. ECR - AV	.15	.14	8.71				-2.75
LOTR							.65
ECR - AX							-1.66
3. ECR - AV x LOTR	.18	.02	1.40				
ECR - AX x ECR - AV							
ECR - AX x LOTR							
4. ECR - AX x ECR - AV x LOTR	.19	.01	2.67				

Note: Avoid = ECR, Avoidance subscale; LOTR = Life Orientation Test Revised; Anx = ECR, Anxiety subscale.

\*  $\beta$  (Standardized Beta Weight) significant at  $p < .01$ . \*\*  $\beta$  (Standardized Beta Weight) significant at  $p < .05$ .

Table 5 continued.

*Regression Analysis Predicting Career Self-efficacy, controlling for age, gender, and ethnicity (N=172)*

Step	$R^2$	$\Delta R^2$	$\Delta F$	$B$	$SE$	$\beta$	$B$
					(First step)		
1. Age	.01	.01	.76	.08	.15	.04	.08
Gender				2.95	2.41	.10	2.04
Ethnicity				-.64	.97	-.05	-.48
2. ECR - AV	.15	.14	8.71				
LOTR							-2.75
ECR - AX							.65
							-1.66
3. ECR - AV x LOTR	.18	.02	1.40				
ECR - AX x ECR - AV							
ECR - AX x LOTR							
4. ECR - AX x ECR - AV x LOTR	.19	.01	2.67				

Note: Avoid = ECR, Avoidance subscale; LOTR = Life Orientation Test Revised; Anx = ECR, Anxiety subscale.

\*  $\beta$  (Standardized Beta Weight) significant at  $p < .01$ . \*\*  $\beta$  (Standardized Beta Weight) significant at  $p < .05$ .

## Discussion

The present study extends the literature on career self-efficacy in several ways. First, the relationship between optimism and career self-efficacy is one that has not been established firmly. Currently only one other study has examined optimism and career self-efficacy. Creed, Patton, and Bartrum (2004) used Structural Equation Modeling (SEM) to identify this relationship among 130 grade 12 students. Their results should be interpreted with caution as SEM may not have been an appropriate choice for data analysis given the small sample size. Second, the results of the current study provide support for a relationship between attachment styles and career self-efficacy, one that may be fruitful to explore further.

### *Optimism and career self-efficacy*

The idea that there is a connection between optimism and career self-efficacy makes intuitive sense based on the definition of optimism. Scheier and Carver (1993) proposed that optimism was hopeful expectation of general positive outcomes. The measure used for career self-efficacy in this study asks participants to indicate their degree of confidence for such behavioral items as writing a resume or completing a job interview (Betz et al., 1996). If individuals with higher levels of optimism have expectations of good outcomes, it follows that this would translate to their expectations of career outcomes.

Scheier and Carver (1987) proposed the variable of dispositional optimism based on their research on coping strategies. If optimists do engage in specific strategies that

these strategies. When answering the questions on the CDMSE-SF, perhaps individuals with high levels of optimism considered the strategies they would use to approach tasks like preparing a resume. If the strategies they identify have been effective in the past, it is likely they would choose to use them when approaching a career stressor as well. It may be then that the relationship between optimism and career self-efficacy is more fully explained through examining the coping strategies used by individuals with various levels of optimism.

#### *Attachment style and ethnicity*

Recent attention has been paid to differing styles of attachment across ethnicities and cultures. Research questions have included how individuals of different ethnicities form attachments to caregivers and to significant others, identifying qualitative differences in attachment styles, and whether or not current attachment theory sufficiently describes attachment patterns among different ethnic groups. Researchers have also specifically focused on undergraduate students and their transition to college, which may be applicable to the sample used for this study. However, the studies seem to provide conflicting results. For example, in their study examining attachment style and social adjustment to college, Rice, Cunningham, and Young (1997) found that African American undergraduate students reported lower levels of social adjustment than did their Caucasian counterparts, whereas D'Augelli and Hershberger (1992) reported that the African American undergraduates in their study more strongly valued their relationships with their parents than did the Caucasian students in the study.

The D'Augelli and Hershberger (1992) study also found a relationship between African American participants and anxious attachment, as well as a relationship between Latino/a participants and anxious attachment. Researchers such as Lopez, Melendez, and Rice (2000) suggested that attachment differences may exist cross-culturally due to differences in family structure and family values. Latino families may, for example, rely on the values of family closeness and respect to foster development of social adjustment (Smith & Krohn, 1995). Kane and Erdman (1998) found that African American undergraduates rated their families as more encouraging of autonomy and developing individually. Kenny and Stryker (1996) also found evidence that minority undergraduate students in general may rely more heavily on family support when socially adjusting to college life. Researchers who wish to examine the relationship between career outcomes and attachment styles may want to consider cultural variables as well, such as acculturation, cultural values and norms, and family structure.

### *Limitations*

Several of the limitations of this study concern the demographics of the sample. The sample largely was female, which makes it nearly impossible to examine the relationships of the variables among male participants. Also, the majority of the population was Caucasian, so relationships in regard to ethnicity should be interpreted with caution. In addition, this sample consisted entirely of students enrolled in classes during the summer session. It is unknown whether these results are representative of the university's undergraduate population.

These limitations help to explain why the proposed moderator model was not significant. Frazier et al. (2004) discuss the importance of adequate range across the sample. This sample size consisted primarily of Caucasian females, which may have reduced the power for this model. In addition, while the original model was based on current literature, it now appears that a moderator interaction is not the best model to describe the relationship among the three variables. When initial correlational analyses were completed, both anxious attachment and avoidant attachment were negatively correlated with optimism. This correlation between the two predictor variables most likely reduced the likelihood of confirming the hypothesized moderator model. Finally every analysis, from initial correlation to the final regression model, provided support for the positive association between optimism and career self-efficacy. The relationship between attachment style and career self-efficacy however, was not as strongly supported, suggesting that the relationship between the variables may be more complex.

In light of the limitations of the study, it may be useful also to mention the strength of using undergraduate samples for career research. Given that undergraduate college students are at a point in their lives at which they are developing their career self-efficacy, this sample was appropriate for the study. Many of the students are faced with the challenge of declaring a major and outlining a specific career path. Also, given that 23% of VCU's undergraduate student population is 25 years or older, it was likely that the sample would include some returning students who added diversity to the sample. These students may be earning another degree or they may be beginning or finishing one after several years in the work force. These students also provide an excellent population

to study career self-efficacy. The decision to return to college is a challenging one, and their experiences in their vocational field up to this point have contributed to their career self-efficacy.

### *Future Directions*

Given the limitations of this sample, future research with a more diverse sample would help establish the level of generalizability across gender and ethnicity. It also would be helpful to explore further the relationship between optimism and career self-efficacy. It is possible that coping strategies explain part of the relationship, but there may be other factors as well. In addition, cross-cultural research on attachment provides a rich area for future studies. Not only is it important to understand whether or not current attachment theories adequately describe the attachment styles found in other cultures, but it would also be helpful to explore differences in the prevalence of attachment styles across cultures.

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## Appendix 1

### Measures

#### Life Orientation Test – Revised

Please rate how strongly you agree or disagree with the following items.

1-----2-----3-----4-----5  
Strongly Disagree Strongly Agree

1. In uncertain times I usually expect the best.
2. It's easy for me to relax.
3. If something can go wrong for me, it will.
4. I'm always optimistic about my future.
5. I enjoy my friends a lot.
6. It's important for me to keep busy.
7. I hardly ever expect things to go my way.
8. I don't get upset too easily.
9. I rarely count on good things happening to me.
10. Overall, I expect more good things to happen to me than bad.

#### Experiences in Close Relationships

Please rate how strongly you agree or disagree with each statement using the scale below.

1-----2-----3-----4-----5  
Agree strongly Disagree strongly

1. I prefer not to show a partner how I feel deep down.
2. I worry about being abandoned.
3. I am very comfortable being close to romantic partners.
4. I worry a lot about my relationships.
5. Just when my partner starts to get close to me I find myself pulling away.
6. I worry that romantic partners won't care about me as much as I care about them.
7. I get uncomfortable when a romantic partner wants to be very close.
8. I worry a fair amount about losing my partner.
9. I don't feel comfortable opening up to romantic partners.
10. I often wish that my partner's feelings for me were as strong as my feelings for him/her.
11. I want to get close to my partner, but I keep pulling back.

12. I often want to merge completely with romantic partners, and this sometimes scares them away.
13. I am nervous when partners get too close to me.
14. I worry about being alone.
15. I feel comfortable sharing my private thoughts and feelings with my partner.
16. My desire to be very close sometimes scares people away.
17. I try to avoid getting too close to my partner.
18. I need a lot of reassurance that I am loved by my partner.
19. I find it relatively easy to get close to my partner.
20. Sometimes I feel that I force my partners to show more feeling, more commitment.
21. I find it difficult to allow myself to depend on romantic partners.
22. I do not often worry about being abandoned.
23. I prefer not to be too close to romantic partners.
24. If I can't get my partner to show interest in me, I get upset or angry.
25. I tell my partner just about everything.
26. I find that my partner(s) don't want to get as close as I would like.
27. I usually discuss my problems and concerns with my partner.
28. When I'm not involved in a relationship, I feel somewhat anxious and insecure.
29. I feel comfortable depending on romantic partners.
30. I get frustrated when my partner is not around as much as I would like.
31. I don't mind asking romantic partners for comfort, advice, or help.
32. I get frustrated if romantic partners are not available when I need them.
33. It helps to turn to my romantic partner in times of need.
34. When romantic partners disapprove of me, I feel really bad about myself.
35. I turn to my partner for many things, including comfort and reassurance.
36. I resent it when my partner spends time away from me.

### **Career Decision-Making Self-efficacy Scale – Short Form**

Please indicate how confident you are that you could complete the following tasks.

1-----2-----3-----4-----5

1. Make a plan of your goals for the next five years.
2. Prepare a good resume.
3. Change occupations if you are not satisfied with the one you enter.
4. Accurately assess your abilities.
5. Determine the steps to take if you have academic trouble with an aspect of your chosen major.
6. Choose a career in which most workers are members of the opposite sex.
7. Identify some reasonable major or career alternatives if you are unable to get your first choice.
8. Determine what your ideal job would be.

9. Describe the job duties of the career/occupation you would like to pursue.
10. Successfully manage the job interview process.
11. Select one major from a list of potential majors you are considering.
12. Find information in the library about occupations you are interested in.
13. Find out about current employment trends for an occupation.
14. List several majors that you are interested in.
15. Move to another city to get the kind of job you would really like.
16. Persistently work at your major or career goal even when you get frustrated or discouraged.
17. Choose a career that will fit your preferred lifestyle.
18. Identify employers, firms, institutions relevant to your career possibilities.
19. Determine the steps you need to take to successfully complete your chosen major.
20. List several occupations that you are interested in.
21. Choose a college major or career that will suit your abilities.
22. Find information about graduate or professional schools.
23. Define the type of lifestyle you would like to live.
24. Choose a college major or career that will fit your interests.
25. Talk to a faculty member in a school's department in which you are considering for a major.

## Vita

Anya Elizabeth Moon was born June 10, 1980 in Loudoun County, Virginia. She is an American citizen and she graduated from Loudoun Valley High School, Purcellville, Virginia in 1998. She attended Sweet Briar College, Sweet Briar, Virginia, and graduated in 2002 with a Bachelor of Science in Psychology and a Bachelor of Arts in Spanish.