

Summer 2016

The Relationship Between Resilience, Attachment, and Emotional Coping Styles

Jennika K. Jenkins
Old Dominion University

Follow this and additional works at: https://digitalcommons.odu.edu/psychology_etds

 Part of the [Developmental Psychology Commons](#)

Recommended Citation

Jenkins, Jennika K.. "The Relationship Between Resilience, Attachment, and Emotional Coping Styles" (2016). Master of Science (MS), thesis, Psychology, Old Dominion University, DOI: 10.25777/0wcx-gr47
https://digitalcommons.odu.edu/psychology_etds/28

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

**THE RELATIONSHIP BETWEEN RESILIENCE, ATTACHMENT, AND
EMOTIONAL COPING STYLES**

by

Jennika K. Jenkins
B. S. May 2011, Georgia College & State University

A Thesis Submitted to the Faculty of
Old Dominion University in Partial Fulfillment of the
Requirements for the Degree of

MASTER OF SCIENCE

PSYCHOLOGY

OLD DOMINION UNIVERSITY
August 2016

Approved by:

James F. Paulson (Director)

Michelle L. Kelley (Member)

Robin J. Lewis (Member)

ABSTRACT

THE RELATIONSHIP BETWEEN RESILIENCE, ATTACHMENT, AND EMOTIONAL COPING STYLES

Jennika K. Jenkins
Old Dominion University, 2016
Director: Dr. James F. Paulson

The construct of resilience has been widely associated with the ability to adequately cope with stressors, which leads to positive long-term health outcomes. Attachment and emotional coping style literatures have both been tentatively linked to resilience, with dismissive and secure attachment styles as well as the repressive coping style positively associated with resilience. However, both avoidantly attached and repressive individuals employ coping strategies that allow them to dissociate from negative emotions, which seems to contradict the stress adaptive quality of resilience. The goal of this study was to explore the theoretical parallel between the attachment and emotional coping styles literature as well as to examine the mediating effect of emotional coping in the relationship between attachment and resilience.

A convenience sample of 266 participants (110 men; 156 women) completed online questionnaires regarding attachment, trait anxiety, defensiveness, and resilience. It was expected that attachment behaviors would theoretically coincide with the dimensional characteristics underlying emotional coping styles (defensiveness and trait anxiety) as well as uniquely predict odds of belonging to categories of emotional coping styles; attachment avoidance and anxiety would differentially predict resilience; and emotional coping style dimensions would mediate the relations between attachment behaviors and resilience. Results of regression and path analyses revealed that

attachment avoidance was negatively associated with defensiveness and attachment anxiety positively predicted trait anxiety. Both attachment anxiety and avoidance negatively predicted resilience. Exploratory analyses revealed that defensiveness positively predicted resilience whereas trait anxiety negatively predicted resilience. Trait anxiety mediated the relationship between attachment anxiety and resilience. Results suggest that repressive and avoidant individuals display similar coping strategies, but possess unique motivations for employing these strategies. The findings call into question the efficacy of relying on the construct of resilience as an indicator of well-being and it is suggested that health providers implement a physiological stress assessment in conjunction with traditional measures of resilience and well-being.

Copyright, 2016, by Jennika K. Jenkins, All Rights Reserved.

This thesis is dedicated to my grandmother, Dianne Farquharson. Without whom, I would not be who I am today.

ACKNOWLEDGMENTS

This thesis would not have been possible without the support of many important people. Primarily, I would like to thank the members of my thesis committee, including Dr. James Paulson, Dr. Michelle Kelley, and Dr. Robin Lewis, for their willingness to provide constructive feedback and invest in my professional development. I would like to extend special thanks to Dr. Michelle Kelley, not only for opening my eyes as to how I can become a better writer, but also for providing invaluable support as both a mentor and a friend.

I would especially like to thank my advisor, Dr. James Paulson, for his countless hours of mentoring and support that he has provided me in the duration of this project. I have always appreciated his ability to keep the humor in our work as well as encourage me to pursue my interests. I am extremely lucky to be able to work with him.

Finally, I would like to thank my friends and family for always believing in me and making my success a matter of fact rather than a possibility in their eyes. Specifically, I would like to thank Brittany Hollis, Amy Stamates, and Rebecca Garden, for keeping me grounded, honest, and encouraging me to believe in myself.

TABLE OF CONTENTS

	Page
LIST OF TABLES	ix
LIST OF FIGURES	x
Chapter	
I. INTRODUCTION	1
RESILIENCE.....	4
RESILIENCE AS A STRESS-RESISTANT ATTITUDE.....	7
ATTACHMENT THEORY	8
ADULT ATTACHMENT	10
ATTACHMENT BEHAVIORS	13
EMOTIONAL COPING STYLES	15
ATTACHMENT BEHAVIORS, EMOTIONAL COPING STYLES, AND RESILIENCE	19
PURPOSE OF THE CURRENT STUDY	20
II. METHOD.....	28
PARTICIPANTS	28
PROCEDURE.....	33
OVERVIEW OF MATERIALS	33
III. RESULTS.....	40
PRELIMINARY ANALYSES	40
HYPOTHESIS TESTING	45
IV. DISCUSSION.....	60
ATTACHMENT BEHAVIORS AND THE CONTINUOUS DIMENSIONS OF EMOTIONAL COPING STYLES	60
ATTACHMENT BEHAVIORS AND EMOTIONAL COPING STYLES	64
ATTACHMENT BEHAVIORS AND RESILIENCE.....	67
EMOTIONAL COPING STYLES AND RESILIENCE.....	68
MEDIATING ROLE OF EMOTIONAL COPING STYLES	69
CLINICAL IMPLICATIONS.....	70
FUTURE RESEARCH	71
STRENGTHS AND LIMITATIONS	72
V. CONCLUSIONS.....	75
REFERENCES	76

	Page
APPENDICES	
A. INFORMATION SHEET	90
B. EXPERIENCES IN CLOSE RELATIONSHIPS–RELATIONSHIP STRUCTURES	92
C. MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE	96
D. TAYLOR MANIFEST ANXIETY SCALE	98
E. DEMOGRAPHIC QUESTIONNAIRE.....	100
VITA.....	102

LIST OF TABLES

Table	Page
1. Demographic Characteristics of Final Sample	32
2. Psychometric Properties of Measurements	34
3. Correlations between Relational Attachment Composite Variables and Study Variables	41
4. Descriptive Statistics of Study Measures	43
5. Correlations between Study Variables	43
6. T-test results for the Effect of Gender on Study Variables	44
7. Standardized Regression Coefficients for Hypothesis 1	47
8. Categorization of Emotional Coping Styles Using Median Splits	48
9. Frequency of Emotional Coping Styles	48
10. Multiple Logistic Regression Results of Attachment Behaviors on Emotional Coping Styles	51
11. Standardized Regression Coefficients for Hypothesis 2	53
12. Standardized Regression Coefficients for Hypothesis 2 Exploratory Analysis	54
13. Standardized Regression Coefficients for Trait Anxiety and Defensiveness on Resilience	54
14. Standardized Regression Coefficients for Trait Anxiety and Defensiveness Interaction Analysis	55
15. Direct Effect Standardized Path Coefficients for Hypothesis 3	57
16. Indirect Effect Standardized Path Coefficients for Hypothesis 3	59

LIST OF FIGURES

Figure	Page
1. The two dimensions of avoidance and anxiety for attachment styles as seen in Fraley & Shaver, 2000, pg. 145.....	12
2. Hypothesized relations between attachment behaviors and ECS dimensions	22
3. Directional hypothesis of odds ratio relationships between attachment behaviors and Low-Anxious ECS	23
4. Directional hypothesis of odds ratio relationships between attachment behaviors and High-Anxious ECS	24
5. Directional hypothesis of odds ratio relationships between attachment behaviors and Defensive High-Anxious ECS	24
6. Directional hypothesis of odds ratio relationships between attachment behaviors and Repressive ECS.....	25
7. Hypothesized relations between attachment behaviors and resilience	25
8. Hypothesized relationships between attachment behaviors, emotional coping style dimensions, and resilience.....	27
9. Process of data cleaning.....	30
10. Multiple regression results for hypothesized relations between attachment and emotional coping style dimensions.....	46
11. Logistic regression results for Low-Anxious ECS	49
12. Logistic regression results for High-Anxious ECS.....	49
13. Logistic regression results for Defensive High-Anxious ECS	50
14. Logistic regression results for Repressive ECS	50
15. Multiple regression results for relations between attachment behaviors and resilience	52
16. Direct effect standardized path coefficients for relations between attachment behaviors, ECS dimensional variables, and resilience	58

CHAPTER I

INTRODUCTION

Adult physical and psychological well-being has been shown to be linked with resilience (Burns & Anstey, 2010; Cederblad, 1996; Karreman & Vingerhoets, 2012; Miller, 2003). Resilience is generally conceptualized as the ability of an individual to achieve a positive outcome when exposure to negative or risky environments would predict a negative outcome (Rutter, 2007). The construct of resilience is weak in that it is confirmed retrospectively, rather than predicted, because the identification of resilience is necessarily dependent on the identification of adversity. Similarly, ambiguity in the definition and measurement of adversity exists, which further confounds the construct of resilience. However, regardless of adversity, resilience is often conceptualized as a strong, stress-resistant attitude (Condly, 2006) that aids the ability to effectively cope with situations that less resilient individuals struggle with. Recent investigations of resilience explore possible mechanisms underlying the construct in the attempt to find potential predictive indicators of resilience. Similarly, the current study attempted to discover the potential predictive power of attachment behaviors and emotional coping styles in regard to resilience.

Attachment is thought to initially evolve via the emotional interactions between parent and child. The development of these primary bonds influences how individuals interrelate in different relationships throughout their lifespan (Ainsworth & Bell, 1970; Bowlby, 1977). Attachment styles are discrete patterns of behavior that are characteristic of the ability to navigate interpersonal interactions. These patterns of behavior facilitate the ability of an individual to both self-regulate emotions as well as seek out and accept

social support when coping with life stressors, which is a necessary mechanism underlying resilience. Research regarding the association of specific attachment styles with resilience, as measured by a stress-resistant attitude, has found that both dismissive attachment and secure attachment styles are associated with greater resilience, whereas fearful and preoccupied attachment styles are not (Karreman & Vingerhoets, 2012). The inconsistency regarding resilience among attachment styles raises the question of how certain individuals are cultivating the stress-resistant attitude characteristic of resilience and whether there are underlying mechanisms that can account for the differences observed.

Individuals with secure and dismissive attachment styles are distinct in their patterns of coping with interpersonal relationships and personal stressors. Compared to individuals with dismissive attachment styles, securely attached individuals are more likely to rely on social support systems when stressed (Mikulincer & Shaver, 2003). Dismissive individuals, however, are more likely to develop a strong, self-reliant attitude in which they avoid depending on others when coping with stress (Bowlby, 1977; Main & Solomon, 1986). Comparatively, those with fearful and preoccupied attachment styles tend to seek out social support when stressed, but remain dissatisfied with their interactions with others, leading them to ineffectively cope with stressors. Individuals with fearful attachment styles tend to desire support, but experience intense anxiety about displaying vulnerability and therefore withdraw from peers whereas preoccupied individuals exaggerate their need for support and often fail to gain the support they believe they require in order to cope with stressors (Mikulincer & Shaver, 2003). Each attachment style demonstrates distinct approaches for interacting with their social support

systems when coping with stress. A difference in emotional coping styles may underlie these discrepancies and may similarly help to explain why particular attachment styles are more likely to demonstrate resilience whereas others are not.

A small number of studies have linked attachment styles to emotional coping styles. However, within this limited research, it has been demonstrated that individuals with a repressive coping style are more likely to also have an avoidant attachment style (Vetere & Myers, 2002). Similarly, Coifman and colleagues (2007) determined that repressive copers are better able to cope with significant stress and demonstrate high levels of resilience (Coifman, Bonnano, Ray, & Gross, 2007). These studies provide evidence for potential connections between these three constructs.

Emotional coping styles are comprised of distinct patterns of behavior indicative of individual differences in the ability to cope with stressors in general (Myers, 2000; Weinberger, Schwartz, & Davidson, 1979). There are a total of four emotional coping styles: low-anxious, which is denoted by low levels of both anxiety and defensiveness when stressed; high-anxious, which is characterized by high levels of anxiety, but low levels of defensiveness when stressed; defensive high-anxious, which is illustrated by high levels of defensiveness and anxiety when stressed; and repressive coping style, which is characterized by a self-report of low anxiety, but a contradictory high level of physical anxiety (suggesting a dissociative style of coping), and high defensiveness when stressed. Differences in individual emotional coping styles may potentially expand upon the known coping functions of attachment styles and help further understand the link between attachment styles and resilience.

This study aims to expand upon previous research regarding attachment styles and resilience by (a) investigating the specific associations between attachment styles and emotional coping styles and (b) exploring the potential mediating effect that emotional coping styles may exert on the relationship between attachment styles and resilience.

Resilience

Resilience is generally defined as an individual's achievement or maintenance of positive outcomes regardless of adverse experiences or risky environments that would normally predict a negative outcome (Rutter, 2007). Resilient individuals are able to better cope with extreme stressors than others who suffer the same experiences (Rutter, 2013). However, some ambiguity in the definition and measurement of resilience exists. For example, there are discrepancies in the literature as to what constitutes an "adverse environment" or "extreme stressor." Researchers have explored resilience in situations of a single stressful event (Bonnano, 2004; Miller, 2003), a collective accumulation of negative life experiences (Luthar, Cicchetti, & Becker, 2000), and scientifically scrutinized, prevalent risk factors, such as maltreatment and abuse in childhood (Rutter, 2013).

The ambiguity regarding the construct of adversity contributes to the overall confusion regarding resilience. Some researchers maintain that the construct of resilience should be limited to experiences of adversity across development (Luthar et al., 2000) while other researchers insist that resilience should be broadened to include all individuals who display strength after facing hardship (Campbell-Sills, Cohan, & Stein, 2006; Miller, 2003). This confusion persists because adverse experiences in childhood may affect developmental processes that in turn promote resilience (Cicchetti, Rogosch,

Lynch, & Holt, 1993), in addition, characteristics of resilience may be promoted by individual differences in temperament or IQ (Rutter, 1990). It remains unclear whether the quality of adversity experienced affects resilience or if resilience is simply an inherent characteristic of the individual that allows more effective coping. If the type of experienced adversity interacts with subsequent resilience, then it is imperative to clarify the degree of influence one factor has on the other. Rutter (2013) maintains that resilience cannot be properly studied unless the risk factor and corresponding maladaptive outcome have a clear causal relationship that has been established a priori. Otherwise, broad categories of potential risk factors can be mistaken as having a substantial influence on potential outcomes when no relationship actually exists. Because of this potential risk, resilience must be understood in the context of hardship.

Because resilience is thought to occur when an individual maintains a psychological equilibrium when faced with adversity (Miller, 2003), the construct itself is studied retrospectively. Resilience is usually identified when the context of experienced adversity is understood, commonly making the identification of resilience a dichotomous observation tied to a specific context. For example, when resilience is studied in regard to the loss of a loved one, the behaviors an individual displays when coping with this stress may be indicative of resilience, but the resilience identified is tied to the context of the personal loss. Resilience may be better understood as a continuous variable that assesses the degree to which an individual is able to cope with adverse situations (Condly, 2006). An individual who is deemed resilient may not maintain high levels of resilience in all adverse situations with which they are faced. Understanding the

construct of resilience as a continuous variable allows for fluctuations in coping with adverse circumstances.

As the construct currently stands, there are few definitive predictive factors that account for the occurrence of resilient characteristics. The investigation of resilience has mainly focused on uncovering individual characteristics that constitute resilience such as coping strategies (Beasley, Thompson, & Davidson, 2003), attitudes or self-perceptions (Burns & Anstey, 2010), or protective mechanisms such as temperament or IQ (Rutter, 1990). However, until a consensus can be achieved regarding what constitutes “adversity” and its specific relationship with resilience, it is doubtful that these investigations will provide any clarity on the construct.

Regardless of the operational definition of adversity, those identified as resilient tend to demonstrate a pervasive, stress-resistant attitude (Staudinger, Marsiske, & Baltes, 1993; Watt, David, Ladd, & Shamos, 1995; Werner, 1995). This attitude has been described as “a dogged [determined attitude]... that they would conquer their circumstances, that they were people of worth and value, and that they had the inner resources to succeed” (Condly, 2006, p. 218-219). The prevalence of this attitude within resilient individuals has led some researchers to operationally define resilience as simply “a stress-resistant attitude, related to the appraisal of oneself as able to cope with stressors” (Connor & Davidson, 2003; Karreman & Vingerhoets, 2012, p. 821). For the purposes of this paper, resilience was defined as a stress-resistant attitude as Karreman and Vingerhoets defined it in their 2012 study.

Resilience as a Stress-Resistant Attitude

In general, resilience is a construct that is inferred from observing the behavior and outcomes of individuals that have experienced significant stress (Rutter, 2012). Qualitative interviews with resilient individuals indicate a consistent belief that they are able to overcome negative circumstances and have the inner strength to succeed (Condly, 2006). This confidence in their ability to overcome may be due to “steeling effects,” which indicates a decreasing of vulnerability to stress through repeated exposure (Rutter, 2012). The more that an individual is exposed to stressful situations, the more said individual will become confident in their ability to cope. However, steeling effects are subject to individual differences such as age and environment. Repeated exposure to stress could sensitize an individual to stress and lead to psychological dysfunction rather than increased resilience (Elder, 1974).

Although the mechanisms underlying resilience are still being investigated, the concept is consistently marked by an attitude of perseverance, which undoubtedly facilitates successful coping (Wagnild, 2009). Individuals that maintain this stress-resistant attitude have demonstrated positive physical and psychological health outcomes (Cederblad, 1996; Connor & Davidson, 2003; Rutter, 1985), with higher levels of resilience associated with lower reports of psychiatric or somatic ailments (Miller, 2003). Similarly, resilient individuals have reported experiencing more positive emotions and social support than less resilient individuals (Bonnano, 2004; Luthar et al., 2000). Given the protective potential of resilience, the construct is a worthwhile pursuit of study.

Attachment Theory

Attachment theory addresses the interrelationships and bonds between human beings throughout the lifespan (Bowlby, 1977) and is thought to influence the development of emotional coping (Cassidy, 1994). Attachment is initially developed within the first nine months of life via the interactions between an attachment figure and infant (Ainsworth & Bell, 1970; Bowlby, 1977). The attachment figure is thought to represent a secure base for the child so that they may explore their environment yet return for safety when feeling threatened (Ainsworth & Bell, 1970). When distressed children seek out their attachment figure for security, attachment behaviors are easily observable. Ainsworth and colleagues (1978) initially identified attachment styles through observation of parent-child interactions via the Strange Situation paradigm. Patterns of behavior characteristic of specific attachment styles emerged, including: secure, anxious/ambivalent, and avoidant attachment styles (Ainsworth & Bell, 1970; Ainsworth, Blehar, Waters, & Wall, 1978). Securely attached children are characterized by the attempt to maintain proximity and contact to the primary caregiver, especially after a brief separation. Securely attached children seek out their attachment figure for comfort and are subsequently comforted by this person when distressed. Anxious/ambivalent children simultaneously seek and resist contact with their attachment figure when distressed. These children want to be comforted by their attachment figure, but may distrust the figure's ability to comfort. Children within this category of attachment are generally more distressed by separation and have more difficulty calming their arousal. Finally, avoidantly attached children do not seek proximity to their attachment figure when distressed. Instead, they tend to avert their gaze and generally ignore the parent. If

the parent attempts to pick up the child to give comfort, the child does not resist or encourage contact, but remains relatively passive. This passive behavior seems to indicate a marked distrust in the ability of the attachment figure to provide comfort from distress (Ainsworth et al, 1978).

The interactions between the attachment figure and child allow the child to develop an understanding of how to both express and regulate their own emotional states (Cassidy, 1994). The quality of these interactions necessarily informs the attachment style that arises. Early attachment experiences influence a multitude of processes such as coping, stress management, emotional regulation, and overall psychological well-being (Cassidy, 1994; Ditzen, Schmidt, Strauss, Nater, Ehlert, & Heinrichs, 2008; Maunder, Lancee, Nolan, Hunter, & Tannenbaum 2006; Mikulincer, & Shaver, 2007). Although this primary attachment may attenuate over time given new opportunities for attachment, the original parent-child attachment commonly persists and influences the ability of an individual to develop affectional bonds throughout the lifespan (Bowlby, 1977; Fraley, Vicary, Brumbaugh, & Roisman, 2011).

Attachment theory maintains that attachment behaviors are indicative of an internal, representational model of others and self that allows learned expectations of behavior to guide how an individual copes with relationships and stressors throughout life (Bartholomew, 1990; Bowlby, 1980; Main, Kaplan, & Cassidy, 1985). In essence, individuals develop expectations about everyday social interactions and these expectations guide their interactions with others and themselves. If an individual develops an attachment style that is marked by confidence in positive interactions (or a positive view of others), then this person usually has the ability to rely on others when in

distress and to cope with stressors in a healthy way. On the other hand, subscribing to an attachment style that promotes distrust in others discourages an individual to ask for help from others when distressed and leads to a lowered ability to cope with stressors. The model of attachment can be utilized to explain certain psychopathologies and emotional distress within relationships by understanding the deviations from normal, healthy attachment development, which lead to a distorted internal model (Bowlby, 1977). Attachment theory has evolved not only explain the interactions between parent and child, but also to explain later adult attachments between friends, peers, and romantic partners (Ainsworth, 1982; Ainsworth, 1989; Fraley & Shaver, 2000; Hazan & Shaver, 1987).

Adult Attachment

Research in adult attachment has suffered from an overreliance on childhood representations and infant attachment styles that may or may not continue to be appropriate in adulthood (Fraley & Shaver, 2000; Hazan & Shaver, 1987). As a consequence of this overreliance, research on attachment throughout the lifespan utilized the attachment style to the primary caregiver in order to attempt to explain later attachment dysfunctions in relationships with others, such as a romantic partner or a best friend. Although the primary attachment style tends to remain stable throughout life, once a new attachment figure becomes available to an individual, it is possible that negative attachment behaviors (such as anxious and/or avoidant behaviors) can positively change over time.

Similarly, discrepancies regarding the attachment behavior of avoidantly attached adults emerged, with contradictory reports of both an active fear of closeness as well as a

general emotional detachment in relationships to individuals other than the parental figure. In response to these discrepancies, Bartholomew (1990) proposed a four-category model that differentiated between two forms of adult avoidance of intimacy: dismissive-avoidant and fearful-avoidant. This model of adult attachment mimics the internal, representational model of the self and others originally proposed by Bowlby. However, qualms about the dimensions of the internal model arose (Brennan, Clark & Shaver, 1998; Fraley & Waller, 1998). Fraley and Shaver (2000) proposed that an internal working model based on a concept of self and others was both inconsistent with empirical evidence regarding the attachment behaviors typical of preoccupied attachment style as well as unlikely to be consistent among the attachment systems of species other than human beings. Based on the work of Brennan, Clark, and Shaver (1998), researchers proposed that individual differences in attachment could more appropriately be distinguished using the behavioral dimensions of anxiety and avoidance instead of the conceptualizations of self and others. Within this framework, anxiety refers to the apprehension concerning rejection from others whereas avoidance corresponds to the uneasiness with intimacy and dependency (Brennan et al., 1998). Fraley and Shaver (2000) maintain that the internal working models of the attachment system are most useful when conceptualized using terms appropriate to how the attachment system is actually affected and the reconceptualization of the model fosters greater continuity of the attachment system from infancy to adulthood. Therefore, the internal models of Bartholomew's attachment styles were redefined as: secure: low avoidance, low anxiety; preoccupied: low avoidance, high anxiety; dismissing avoidant: high avoidance, low anxiety; and fearful avoidant: high avoidance, high anxiety (Fraley & Shaver, 2000; see

Figure 1). This model of attachment is currently the most accepted and dominant model of adult attachment.

Investigations regarding the categorical or dimensional nature of attachment styles followed the reconceptualization of attachment (Fraley & Waller, 1998). Fraley and colleagues (2015) performed a taxometric analysis of attachment and discovered that continuous measures of attachment avoidance and anxiety were superior to categorical representations of attachment styles (Fraley, Hudson, Heffernan, & Segal, 2015). Continuous measures of attachment behaviors allows for a more distinguished approach to understanding individual differences within the attachment system and were therefore utilized for the current study.

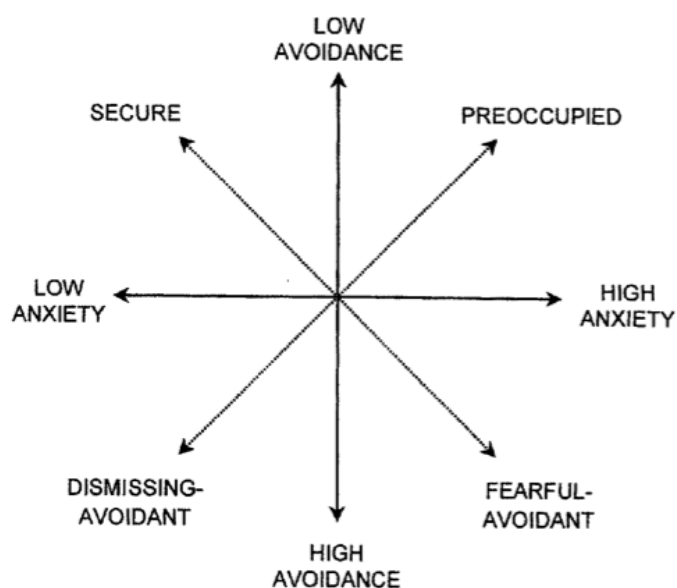


Figure 1. The two dimensions of avoidance and anxiety for attachment styles as seen in Fraley & Shaver, 2000, pg. 145.

Attachment Behaviors

The attachment system consists of both anxious and avoidant attachment behaviors that are enacted in order to increase proximity to an attachment figure (Bowlby, 1969, 1982). The attachment system is relatively prototypical in that attachment behaviors developed in early childhood maintain a stable influence over subsequent attachment opportunities (Fraley, Vicary et al., 2011). Due to the fact that the attachment system is developed early in the lifespan, observed attachment behaviors may be largely unconscious actions influenced by learned expectations in childhood. A notable difference between childhood and adult attachment is that adults are able to elicit a mental image of their attachment figure, such that specific attachment behaviors may not be directly observable (Mikulincer & Shaver, 2007). For securely attached people, this mental representation prompts positive, supportive thoughts and allows them to appropriately manage stress. However, mental attachment figure representation may elicit more negative associations for insecurely attached people, leading them to ineffectively cope with stress.

Both in childhood and adulthood, the attachment system is activated by any perceived threats to security. While in distress, individuals seek their attachment figure for comfort and assess whether the attachment figure is attentive to their needs. If the attachment figure is adequately attentive, security is reestablished. However, in the event that the attachment figure is not responsive to needs, hyperactivating (anxious attachment behaviors) or deactivating (avoidant attachment behaviors) strategies are employed in the attempt to regain security (Mikulincer & Shaver, 2007).

Anxious Attachment Behaviors. Within the attachment system, those who employ hyperactivating strategies are exceptionally sensitive to potential threats as well as their attachment figure's responsiveness to their need for comfort. If the attachment figure is perceived as unresponsive, these individuals redouble their efforts to gain support and protection. Any perceived failure of attachment figures to adequately respond to their needs is attributed to their own personal shortcomings, which leads to the reinforcement of a negative self-image (Cassidy, 1994). These individuals are perceived as immature and overly dependent on others, often showing excessive concern with gaining others' approval (Bartholomew, 1990; Bowlby, 1977). Anxiously attached individuals tend to exaggerate the seriousness of their problems, their inability to cope, and their need for aid (Cassidy & Berlin, 1994; Mikulincer & Shaver, 2003), which may lead to engagement in maladaptive behaviors such as being overly helpful to others in order to gain favor and engaging in risky sexual intercourse. Those with higher attachment anxiety also can engage in controlling or clinging behaviors in attempt to guarantee an attachment figure's attention (Mikulincer & Shaver, 2007), leading to increased anger and hostility within partner conflicts (Simpson, Rholes, & Phillips, 1996). These behaviors can promote relationship dysfunction as well as emotional maladjustment.

Avoidant Attachment Behaviors. Avoidant behaviors are indicative of strategies to allow the individual to deny the need for an attachment figure and therefore deactivate the attachment system. Avoidant individuals inherently avoid intimacy and dependency within relationships in order to avoid the feeling of vulnerability and potential rejection. When distressed, these individuals tend to divert their attention away

from perceived threats (Mikulincer & Shaver, 2007), leading them to distance themselves from others and display compulsive self-reliance (Bowlby, 1977; Main & Solomon, 1986). This emotional dissociation is a learned method of managing stress within interpersonal relationships and within the self. Dissociation is considered “a way of organizing thought and attentional processes in response to implicit social injunctions from primary attachment figures ‘not to know,’” or a “defensive process [that is a] socially constructed way of relating” in order to accommodate the pressure experienced within early attachment interactions to not acknowledge distress (Dutra, Bureau, Holmes, Lyubchik, & Lyons-Ruth, 2009, p. 391). The dissociation of negative emotion becomes the primary method of coping for avoidantly attached individuals, which subsequently impairs their ability to regulate their biological stress response and may result in a lack of awareness regarding potential causes or consequences of psychological distress (Diamond, Hicks, & Otter-Henderson, 2006; Dutra et al., 2009; Roth & Cohen, 1986; Spangler & Grossman, 1993). In fact, possessing an avoidant attachment style explained more variance in emotional dissociation than self-reported trauma in adults (Dutra et al., 2009; Nilsson, Holmqvist, & Jonson, 2011; Ogawa, Sroufe, Weinfield, Calson, & Egeland, 1997).

Emotional Coping Styles

The emotional dissociation observed within avoidantly attached individuals has also been noted within the literature on stress and coping. A persistent discrepancy exists between individual self-reports of anxiety and behaviorally observed anxiety as investigated by biofeedback (Hodges, 1976; Levitt, 1967). That is, some individuals

report experiencing relatively low anxiety in comparison to physiological assessments of anxiety, which makes accurately measuring coping difficult.

In order to address this discrepancy, Weinberger et al. (1979) introduced a method for measuring emotional coping styles using the Marlowe-Crowne Social Desirability Scale to measure defensiveness (M-C SDS; Crowne & Marlowe, 1964) and the Taylor Manifest Anxiety Scale to measure anxiety (TMAS; Bendig, 1956; Taylor, 1953). The M-C SDS is used in order to identify those who are likely to underreport experienced anxiety through the measurement of defensiveness, whereas the TMAS is used to measure trait anxiety. If an individual displays scores that indicate high defensiveness, it is likely that their self-reported anxiety scores incorrectly represent the actual physiological experience of anxiety. This method of measuring coping allows researchers to better study different emotional coping styles without the use of biofeedback machines. The scores on each of the scales are taken in conjunction in order to identify four distinct coping styles: low-anxiety, high-anxious, defensive high-anxious and repressive coping styles (Weinberger et al., 1979).

Emotional coping is defined as the use of “cognitive strategies to alter subjective experience” (Weinberger & Davidson, 1994, p. 588). Weinberger, Schwartz, and Davidson (1979) discuss emotional coping styles as a collection of semi-permanent individual differences that promote a style of coping rather than merely a collection of coping strategies. In other words, the cognitive strategies that are utilized to regulate emotional states arise from developmental experiences so that the strategies become innate reactions to stress instead of consciously chosen methods of coping. Emotional coping styles are similar to traditional attachment styles in that they consist of categories

that contain patterns of behavior unique to each coping style (Myers, 2000). Research has shown that attachment behaviors have a considerable influence on emotional coping strategies (Cassidy, 1994; Mikulincer, & Shaver, 2007), however, little research has been conducted that correlates attachment with specific emotional coping styles as defined by Weinberger and colleagues.

Low-Anxious. The low-anxious (LA) group reports a low score on the TMAS and a low score on the M-C SDS. This group is generally characterized by openness to experience and interpersonal relationships and a lack of defensiveness. Individuals in the LA group are better able to manage stress than the other coping styles (Weinberger et al., 1979).

High-Anxious. The high-anxious (HA) group reports high anxiety scores and low defensiveness scores. This group generally displays traits such as shyness, lack of assertiveness, and fearfulness of interpersonal contact (Weinberger et al., 1979). This group tends to ineffectively cope with stressors when compared to the LA group due to increased sensitization to potential stressors (Weinberger, 1990; Weinberger et al., 1979).

Defensive High-Anxious. The defensive high-anxious (DHA) group reports high anxiety scores and high defensiveness scores. Compared to the HA group, individuals who fall within the DHA group tend to show intermediate anxious behavior when presented with stressors (Asendorpf & Scherer, 1983). The most notable difference between HAs and DHAs is that HA individuals are more likely to personally disclose their level of anxiety whereas DHAs are not as likely to disclose such information (Weinberger et al., 1979). Although DHAs report a high defensive score similar to the

repressive group, studies have found that they do not share the repressor's dissociative style of coping (Asendorpf & Scherer, 1983; Derakshan & Eysenck, 1997a).

Repressors. The repressive coping group, otherwise referred to as repressors (REP), report low anxiety, but high defensiveness on the scales. Interestingly, REPs score significantly lower on the TMAS than LAs (Kahn & Schill, 1971). Repressors are characterized by dissociation from their somatic, affective states and their perceptions of experienced stress (Weinberger, 1990). Although REPs tend to self-report a low experience of distress, biofeedback methods have revealed they experience contradictory high levels of physiological states that indicate high stress (Weinberger et al., 1979). Research suggests that REPs maintain a rigid self-perception which leads to the unconscious and automatic avoidance of negative affect and experiences (Sherman & Cohen, 2002). This method of coping seems to affect overall functioning and is not isolated to one particular context (Barger, Kircher, & Croyle, 1997; Weinberger, 1990). REPs are less likely to recall negative autobiographical memories (Geraerts, Merckelback, Jelicic, & Smeets, 2006), to report higher optimism for negative events than the other coping styles (Myers & Reynolds, 2000), and to consider any negative events that may happen to them to be due to forces outside their control (Weinberger, 1990).

It is important to note that REPs are not overly positive, but instead, the defensive avoidance of negativity results in more disclosure of positive attitudes when compared to the disclosure of negative attitudes (Myers, 2010). For example, when asked to self-report perceptions of parents on close-ended surveys, REPs are more likely to claim healthy, warm, and loving relationships with parents. However, when asked about

parental perceptions in a semi-structured interview situation, REPs disclose more accurate, negative perceptions of their parents. REPs are more likely to display parental dislike and indifference when compared to non-REPs (Myers & Brewin, 1994) and are more likely to subscribe to an avoidant attachment style (Vetere & Myers, 2002). These findings indicate that REPs are more apt to disclose negative information as long as they have the opportunity to disclose positive information as well (Weinberger, 1990; Myers, 2010).

REPs may rely on the belief that not acknowledging internal cues of distress allows them to avoid the issue at hand (Weinberger, 1990). If there is no problem acknowledged, then there simply is no problem. Although this method of coping can actually be beneficial when dealing with psychological stress and adjustment (Coifman et al., 2007; Contrada, Czarnecki, & Li-Chern Pan, 1997; Langens & Morth, 2003), it also comes with physical health risks. REPs make up 30-50% of populations with chronic illnesses (Cooke, Myers, & Derakshan, 2003; Myers, Davies, Evans & Stygall, 2005). In 2012, Mund and Mitte conducted a meta-analysis which revealed that REPs are at a higher risk than non-REPs for developing ailments such as hypertension, cancer, and cardiovascular diseases. Interestingly, studies have also found that REPs are more likely to succeed in regulating health issues that are under their control, such as asthma, diabetes, and dental care, but are not as successful with health conditions that are out of their control, such as cancer (Myers et al., 2005).

Attachment Behaviors, Emotional Coping Styles, and Resilience

Both attachment and emotional coping styles are thought to develop from early experiences in childhood that lead to specific patterns of behavior in social and personal

interactions (Bowlby, 1977; Weinberger & Davidson, 1994). Little research has been conducted linking attachment to emotional coping styles. A study conducted by Vetere and Myers (2002) found that REPs are more likely to have an avoidant attachment style than non-REPs. However, because their study examined repressive coping specifically, it did not document coping among individuals with other forms of attachment. Also, the study was conducted using Hazan and Shaver's three-category model of attachment rather than continuous, dimensional attachment behaviors. Due to these discrepancies, more research is required to investigate the possible correspondence between attachment and emotional coping styles.

Attachment and emotional coping styles have both been tentatively linked to resilience (e.g., Coifman et al, 2007; Karreman & Vingerhoets, 2012). However, these studies are limited in focus and methodology. Coifman and colleagues (2007) focused on demonstrating the resilient tendencies of REPs when compared to nonREPs and did not investigate the varying levels of resilience among all of Weinberger's four emotional coping styles. Similarly, Karreman and Vingerhoets (2012) utilized a categorical assessment of attachment style in regard to resilience, which limits the ability to understand individual differences within these categories. The current study intended to further explore the relationships between attachment, emotional coping styles, and resilience by investigating all emotional coping styles and utilizing a continuous measurement of relevant variables.

Purpose of the Current Study

Research has demonstrated a link between attachment styles and resilience, in which secure and dismissive attachment styles were associated with high levels of

resilience, but preoccupied and fearful attachment styles were not associated with resilience (Karreman & Vingerhoets, 2012). While the patterns of resilience demonstrated by secure, preoccupied, and fearful attachment individuals are consistent with attachment theory, dismissively attached individuals display a contradictory high level of resilience. Given the fact that dismissive attachment is categorized as an insecure attachment style along with preoccupied and fearful, one would assume that individuals with dismissive attachment style would demonstrate low levels of resilience. This discrepancy may be due to differences in emotional coping styles within the differing attachment styles. Despite the evidence supporting the relationship between attachment and emotional coping, little to no research has been conducted using Weinberger's four emotional coping styles. Similarly, tentative evidence has demonstrated a link between the repressive coping style and resilience (Coifman et al., 2007), which further encourages investigation within this topic. The association between emotional coping styles and attachment styles may provide insight into why some attachment styles are more likely to demonstrate resilience than others.

There are two main purposes of the current study. The first goal is to link the literatures regarding attachment and emotional coping styles. If met, this can further our understanding of emotional coping styles by allowing us to explore the influence of early attachment relationships on the development of coping in general. More specifically, this study aims to examine the association between dismissive attachment and repressive coping, which may allow us to illuminate some underlying explanation for the contradictions observed within repressive coping.

The second goal is to explore the role that emotional coping plays in examining the relationship between attachment behaviors and resilience. Due to the lack of research associating Weinberger's four emotional coping styles with attachment behaviors, as well as evidence that suggests a relationship between attachment and resilience, the following hypotheses are proposed:

H1: The attachment behaviors of anxiety and avoidance will significantly relate to the emotional coping style dimensions of defensiveness and trait anxiety (see Figure 2).

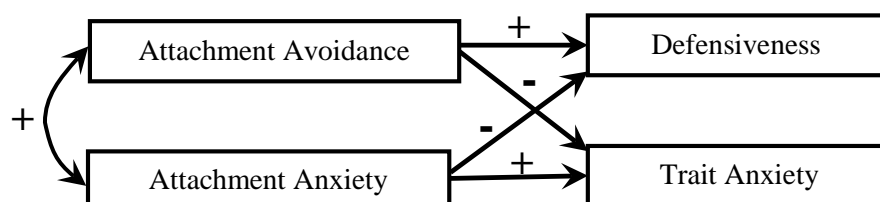


Figure 2. Hypothesized relations between attachment behaviors and ECS dimensions.

In order to understand the relationships between attachment behaviors and emotional coping styles, as well as to more fully demonstrate a parallel between the attachment and emotional coping literature, additional hypotheses, investigating emotional coping styles in their traditional categorical representations, are required. I expect when exploring specific patterns among emotional coping styles that:

H1a: As attachment anxiety increases, the odds of belonging to the low-anxious emotional coping style decreases and as attachment avoidance increases, the odds of belonging to the low-anxious emotional coping style decreases (see Figure 3).

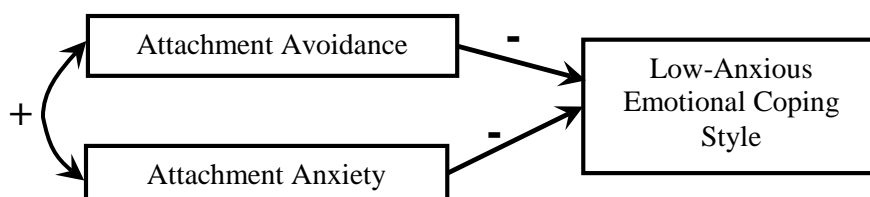


Figure 3. Directional hypothesis of odds ratio relationships between attachment behaviors and Low-Anxious ECS.

H1b: As attachment anxiety increases, the odds of belonging to the high-anxious emotional coping style increases and as attachment avoidance increases, the odds of belonging to the high-anxious emotional coping style decreases (see Figure 4).

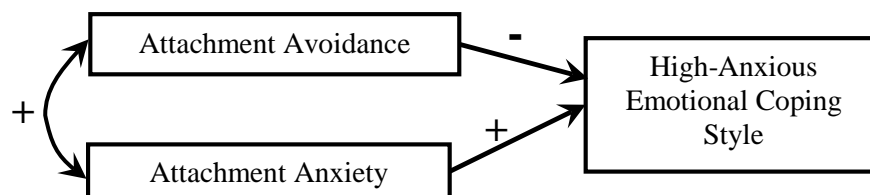


Figure 4. Directional hypothesis of odds ratio relationships between attachment behaviors and High-Anxious ECS.

H1c: As attachment anxiety increases, the odds of belonging to the defensive high-anxious emotional coping style increases and as attachment avoidance increases, the odds of belonging to the defensive high-anxious emotional coping style increases (see Figure 5).

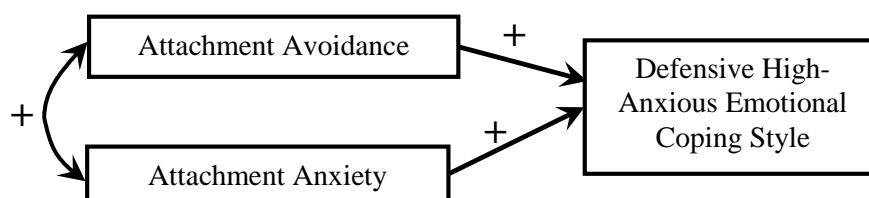


Figure 5. Directional hypothesis of odds ratio relationships between attachment behaviors and Defensive High-Anxious ECS.

H1d: As attachment anxiety increases, the odds of belonging to the repressive emotional coping style decreases and as attachment avoidance increases, the odds of belonging to the repressive emotional coping style increases (see Figure 6).

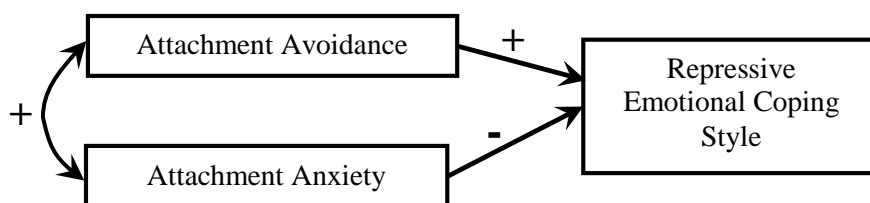


Figure 6. Directional hypothesis of odds ratio relationships between attachment behaviors and Repressive ECS.

H2: As attachment avoidance increases, resilience increases and as attachment anxiety increases, resilience decreases (see Figure 7).

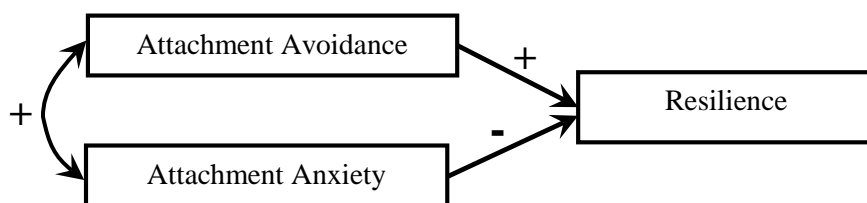


Figure 7. Hypothesized relations between attachment behaviors and resilience.

H3: The relationships between attachment avoidance and attachment anxiety and resilience would be mediated by the emotional coping style dimensions of trait anxiety and defensiveness (see Figure 8).

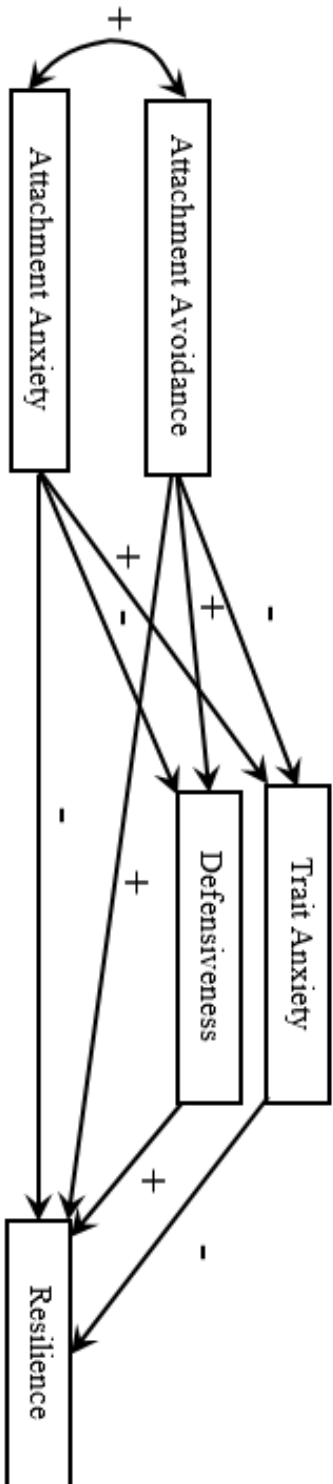


Figure 8. Hypothesized relationships between attachment behaviors, emotional coping style dimensions, and resilience.

CHAPTER II

METHOD

Participants

Participants were conveniently sampled from Amazon's Mechanical Turk (MTurk), which is a "crowdsourcing platform" that allows access to a more diverse population (Mason & Suri, 2012, p. 1; Paolacci, Chandler, & Ipeirotis, 2010). To be eligible, participants must have been between the ages of 18 to 29 and maintain current residency in the United States. Incentives for the study included a total of one dollar for completion of the study (Horton & Chilton, 2010). An a priori power analysis was calculated for the path model (i.e., hypothesis 3) using the N:q rule of 20 participants per parameter (Kline, 2011). There were a total of 13 parameters within the path analysis for this study, yielding a total required sample size of 260 participants.

A total of 433 individuals attempted the survey and 365 individuals completed the survey. Fifty seven participants reported being over the age of 29 and three participants reported living outside of the United States and therefore were ineligible to complete the study. Eight participants did not complete the survey and were therefore dropped from the analyses. After assessing and removing all cases terminated due to disqualification ($n = 68$), I analyzed the remaining survey cases ($n = 365$) visually in order to detect "straight-line" data and failed attention checks. Several responses were rejected due to failed attention checks ($n = 37$), seven of which were straight-line data quality. Twenty-four cases were rejected due to IP addresses located outside of the United States ($n = 24$), as detected via Qualtrics survey software. These rejected responses did not receive the

incentive for completing the study and were not included in analyses. All participants that completed the survey with a completion time less than five minutes were dropped from analyses ($n = 37$). Finally, one participant failed to report their gender and was therefore excluded in the analyses. The final sample included a total of 266 participants (see Figure 9).

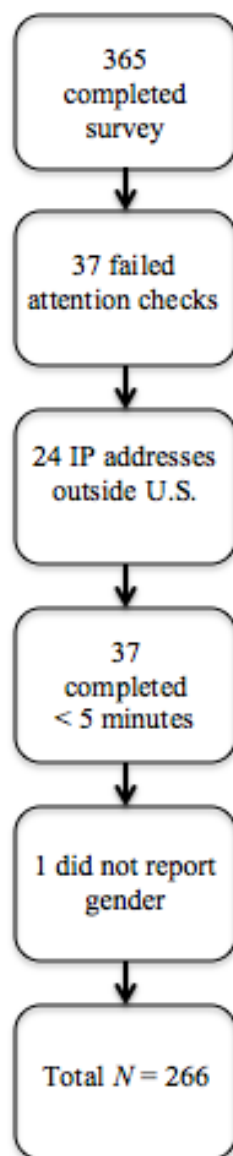


Figure 9. Process of data cleaning.

Of the 266 participants, 41.4% were men ($n = 110$) and 58.6% were women ($n = 156$) and the mean age of participants was 25.70 ($SD = 2.63$). Most participants reported relationship statuses of single (53.0%; $n = 141$) and married or civil union (24.1%, $n =$

64). Sample ethnicity included Caucasian (75.9%; $n = 202$), African American (9.4%; $n = 25$), Hispanic (4.9%; $n = 13$), Asian (6.4%; $n = 17$), Native American (0.4%; $n = 1$), and Multiracial (3.0%; $n = 8$) participants. Detailed demographic characteristics of the sample are reported in Table 1. The American Psychological Association ethical guidelines for the protection of human subjects were followed (see Appendix A for the information sheet given to all participants before the study).

Table 1

Demographic Characteristics of Final Sample (N = 266)

Variable	N	%
<i>Gender</i>		
Female	156	58.6
Male	110	41.4
<i>Ethnicity</i>		
Caucasian	202	75.9
African-American	25	9.4
Hispanic	13	4.9
Asian	17	6.4
Native American	1	0.4
Multiracial	8	3.0
<i>Education</i>		
High School	26	9.8
Some College	79	29.7
Associate Degree	32	12.0
Bachelor Degree	103	38.7
Graduate School	26	9.8
<i>Sexual Orientation</i>		
Heterosexual	232	87.2
Gay / Lesbian	8	3.0
Bisexual	23	8.6
Pansexual	2	0.8
<i>Relationship Status</i>		
Single	141	53.0
Married / Civil Union	64	24.1
Living with Partner	51	19.2
Divorced / Separated	10	3.8

Procedure

The study was made available online through Amazon's MTurk crowdsourcing platform. Participants on MTurk were recruited and compensated a total of one dollar upon successful completion of the study. The participants read a brief overview about the purpose of the study, gave their consent to participate, and completed the survey online. The survey included the measures listed below as well as questions regarding demographic information. Survey completion time averaged around 15 minutes. All materials and procedures were reviewed by Old Dominion University's Institutional Review Board.

Overview of Materials

Listed below are the materials that were utilized in this study. Psychometric properties for each measure can be found in Table 2.

Table 2

Psychometric Properties of Measurements

Measure	Construct	Subscale		Number of Items	α	<i>M</i>	<i>SD</i>	
Experiences in Close Relationships – Relationship Structure Questionnaire (Fraley et al., 2011)	Attachment	Mother	Anxiety	3	.89	2.41	1.65	
			Avoidance	6	.94	3.24	1.64	
	Father		Anxiety	3	.91	2.65	1.81	
			Avoidance	6	.94	3.85	1.86	
	Partner		Anxiety	3	.91	3.12	1.84	
			Avoidance	6	.92	2.37	1.25	
	Friend		Anxiety	3	.91	2.41	1.50	
			Avoidance	6	.90	2.41	1.09	
	Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960)	Defensiveness	N/A		33	.87	15.06	6.68
	Taylor Manifest Anxiety Scale Short Form (Bendig, 1956; Taylor, 1953)	Anxiety	N/A		28	.91	12.21	7.34
Connor-Davidson Resilience Scale (Connor & Davidson, 2003)	Resilience	N/A		25	.94	66.05	17.10	

Note: Psychometric properties listed here (alpha, mean, standard deviation) are from current study; α = Cronbach's alpha for internal consistency.

Experiences in Close Relationships-Relationship Structure Questionnaire

(ECR-RS; Fraley, Heffernan, Vicary, & Brumbaugh, 2011). The ECR-RS scale consists of 36 total items and assesses attachment in regard to 4 different target relationships: mother, father, romantic partner, and best friend. A total of 9 items are asked for each target relationship, yielding a total of 36 items for the scale. Participants are asked to rate each item on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*). Sample statements include “I find it easy to depend on this person” and “I often worry that this person doesn’t really care for me” (see Appendix B). Each subscale yields a total of two continuous scores, one regarding avoidance and one for anxiety, and higher scores indicate higher levels of the attachment behavior. The avoidance and anxiety scores were averaged across relationships to calculate a composite score for each (e.g., Fraley, Heffernan, et al., 2011; Fraley, Niedenthal, Marks, Brumbaugh, & Vicary, 2006). These composite scores ranged from 1.0 to 5.38 for attachment avoidance and 1.0 to 6.08 for attachment anxiety. The ECR-RS scale demonstrated adequate to good internal consistency within this study (α s ranging from .89 to .94; see Table 2) and has exhibited convergent and discriminant validity in previous research (Fraley, Heffernan, et al., 2011).

Marlowe-Crowne Social Desirability Scale (M-C SDS; Crowne & Marlowe, 1960). The M-C SDS is utilized to measure defensiveness for the classification of emotional coping styles. In 1964, Crowne and Marlowe reported that their original concept of social desirability necessarily measured a type of “self-protective and defensive” personality trait (p. 233) that necessarily engaged repressive defenses in response to social disapproval (Millham & Kellogg, 1980), which makes this scale an

excellent tool in measuring possible defensiveness in emotional coping. Similarly, Weinberger, Schwartz, and Davidson demonstrated convergent validity for this construct by determining that higher scores on the M-C SDS were indicative of the cognitive avoidance of anxiety that is characteristic of repressive copers (1979). The scale consists of a total of 33 items answered employing the forced choice of true or false. Sample items include, “I have never intensely disliked anyone” and “No matter who I’m talking to, I’m always a good listener” (see Appendix C). Possible scores range from 0-33, with each social desirable answer given by the participant receiving a total of 1 point. The sum of the items indicates the level of defensiveness of the participant. The scale demonstrated good internal consistency in this study ($\alpha = .87$).

Taylor Manifest Anxiety Scale (TMAS; Bendig, 1956; Taylor 1953). The TMAS measures trait anxiety and was used both continuously as well as in conjunction with the M-C SDS in order to categorize coping styles within the sample. The scale consists of a total of 28 items and is answered utilizing forced choice true/false options. Sample items include, “I worry quite a bit over possible troubles” and “I sweat very easily even on cool days.” Scores can range from 0-28, with each answer indicating anxiety receiving one point (anxious answers denoted on scale; see Appendix D); the sum of all items yield a composite score for level of anxiety. The TMAS has exhibited good internal consistency ($\alpha = .91$) within this study and construct validity within previous studies (e.g., Siegman, 1956) making it a reliable choice for assessing anxiety.

For the purposes of this study, the TMAS and M-C SDS were utilized both independently as continuous scores as well as categorically. The use of continuous measures allows us to more adequately understand the nuances of emotional coping

styles as they relate to other variables in the model. However, the method of employing the M-C SDS and TMAS scales in conjunction to categorize emotional coping styles is the most prevalent method used in research today. The original article by Weinberger, Schwartz, and Davidson (1979) detailing this method has been cited a total of 1,115 times, with 204 citations occurring between 2010 and 2015. Within this article, researchers demonstrated adequate construct validity for the employment of these scales in assessing emotional coping styles by utilizing both physiological and self-report approaches to demonstrate theoretically consistent discrepancies between differing styles (Weinberger et al., 1979). In order to adequately explore the influence that emotional coping styles have on the other constructs within this study, the variables of trait anxiety and defensiveness were assessed continuously as well as in the traditional, categorical conceptualization.

In order to categorize participants into emotional coping styles, scores on both the TMAS and the M-C SDS were coded into either high or low categories using median splits (Barger et al., 1997). Scores for both measures were assessed in conjunction for categorization of coping style.

Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003). The CD-RISC measures individuals' stress-resistant attitudes, which are thought to indicate their resilience (Campbell-Sills, Forde, & Stein, 2009). The measure consists of a total of 25 items that participants rate on a scale of 0-4 where 0 means *not true at all*, 1 means *rarely true*, 2 means *sometimes true*, 3 means *often true*, and 4 means *true nearly all the time*. The participant is asked to rate each item based on whether or not it is applicable to their experiences over the last month. Sample items include "I am able to adapt when

changes occur” and “I am not easily discouraged by failure.” Scoring involves summing the total of all items using the designated 0-4 markers. The full possible range of scores is 0-100, with higher scores indicating greater resilience. This scale demonstrated excellent internal consistency in this study ($\alpha = .94$) and has previously been shown to have good test-retest reliability ($r = .87$) as well as convergent and divergent validity (Connor & Davidson, 2003) making it a sufficient measure for assessing resilience.

Demographic information. Participants completed a demographic questionnaire that collected information regarding age, gender, ethnicity, education, sexual orientation, and marital status (see Appendix E).

Amazon’s Mechanical Turk (MTurk). MTurk is an online marketplace that helps companies and researchers find people to perform tasks (Buhrmester, Kwang, & Gosling, 2011). It is commonly referred to as a crowdsourcing platform, which is generally defined as an arena where an individual is able to have a “job outsourced to an undefined group of people in the form of an open call” (Howe, 2006; Mason & Suri, 2012, p. 1). The human intelligence tasks (HITs) are advertised to “workers” on the site, who are considered independent contractors (Mason & Suri, 2012) that complete the task asked of them at the agreed upon compensation provided. Similarly, “requesters” are the individuals who provide the tasks to complete for compensation. Requesters can be companies, researchers, or any other type of individual who is interested in having workers complete a task.

MTurk samples provide more demographic diversity than standard Internet and university samples (Buhrmester et al., 2011) and behave in similar ways as typical laboratory subjects (Horton, Rand, & Zeckhauser, 2011; Paolacci, et al., 2010; Rand,

2012). Horton and associates (2011) conducted a total of three laboratory experiments on MTurk and the results of their studies successfully replicated laboratory findings. These studies provide compelling support for the use of MTurk as an adequate tool in the collection of data (Landers & Behrend, 2015).

Data Quality. MTurk allows requesters to limit access to studies based on worker reputation, which is a percentage given for how often a worker's submissions are accepted or rejected by the requester (Mason & Suri, 2012). Peer, Vosgerau, and Acquisti (2014) assessed the effect of reputation on data quality through the use of attention check questions and found that workers with high reputation (above 95%) rarely failed attention checks and the use of attention checks only served to increase data quality for low reputation workers. The current study included a total of five attention checks used to screen data quality and accept or reject worker submissions. Because of the included attention checks, the study utilized workers with reputation levels above 75% rather than the more restrictive 95% reputation level (Peer et al., 2014) in order to generate the required sample size for analyses.

CHAPTER III

RESULTS

Preliminary Analyses

Data were first examined for missing values and outliers. Boxplots revealed no univariate outliers (i.e., outside three standard deviations) on any variables. Missing data ranged from 0% to 1.5% on all items. Little's missing completely at random (MCAR; Little, 1998) test was completed and found that all scales were MCAR except for the mother attachment subscale of the ECR-RS ($p < .001$). Given less than 5% of data were missing from all scales, which is argued to be negligible missingness (Schafer, 1999), the missing data from the mother attachment subscale was treated as missing at random (Tabachnick & Fidell, 2001). All missing data were addressed through expectation maximization imputation.

In order to determine that different attachment relationships did not differentially relate to study variables, composite scores were created for each target relationship as well as a global composite score for avoidance and anxious attachment behaviors. Bivariate correlations demonstrated no major differences between individual relationship scores and the global attachment score (see Table 3). Therefore, analyses were performed with the global attachment composite score.

All data were normally distributed and unimodal. Descriptive statistics for all study variables are presented in Table 4.

Table 3

Correlations between Relational Attachment Composite Variables and Study Variables

Measure	1	2	3	4	5	6	7	8
1. Mother Avoidance	--							
2. Mother Anxiety	.536***	--						
3. Father Avoidance	.404***	.263***	--					
4. Father Anxiety	.348***	.605***	.536***	--				
5. Partner Avoidance	.087	.184**	.150*	.179**	--			
6. Partner Anxiety	.125*	.395***	.242***	.407**	.493***	--		
7. Friend Avoidance	.162**	.223***	.084	.181**	.357***	.195**	--	
8. Friend Anxiety	.205**	.444***	.130*	.379***	.287***	.440***	.572***	--
9. Global Avoidance	.707***	.487***	.741***	.526***	.545***	.393***	.517***	.412***
10. Global Anxiety	.395***	.796***	.393***	.794***	.378***	.748***	.367***	.716***
11. Defensiveness	-.179**	-.063	-.110	-.086	-.204**	-.249***	-.145*	-.112
12. Trait Anxiety	.193**	.239***	.202**	.269***	.164**	.357***	.239***	.362***
13. Resilience	-.311***	-.227***	-.296***	-.269***	-.313***	-.334***	-.350***	-.376***

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 3 Continued

Measure	9	10	11	12	13
1. Mother Avoidance					
2. Mother Anxiety					
3. Father Avoidance					
4. Father Anxiety					
5. Partner Avoidance					
6. Partner Anxiety					
7. Friend Avoidance					
8. Friend Anxiety					
9. Global Avoidance	--				
10. Global Anxiety	.595***	--			
11. Defensiveness	-.241***	-.170**			
12. Trait Anxiety	.306***	.400***	-.358***		
13. Resilience	-.485***	-.392***	.340***	-.578***	--

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4

Descriptive Statistics of Study Measures

Measure	<i>M (SD)</i>	Range [Min, Max]	Skewness (<i>SE</i>)	Kurtosis (<i>SE</i>)
ECRS Avoidance	2.97 (0.95)	4.38 [1, 5.38]	0.03 (0.15)	-0.48 (0.30)
ECRS Anxiety	2.65 (1.30)	5.08 [1, 6.08]	0.69 (0.15)	-0.28 (0.30)
CD-RISC	66.05 (17.10)	97.00 [3, 100]	-0.54 (0.15)	0.51 (0.30)
M-C SDS	15.06 (6.68)	33.00 [0, 33]	0.31 (0.15)	-0.19 (0.30)
TMAS	12.21 (7.34)	28.00 [0, 28]	0.16 (0.15)	-1.11 (0.30)

Note. $N = 266$; ECRS Avoidance = Experiences in Close Relationships – Relationship Structure Global Attachment Avoidance; ECRS Anxiety = Experiences in Close Relationships – Relationship Structure Global Attachment Anxiety; CD-RISC = Connor Davidson Resilience Scale; M-C SDS = Marlowe Crowne Social Desirability Scale; TMAS = Taylor Manifest Anxiety Scale.

Prior to hypothesis testing, a series of analyses were completed to assess whether demographic variables significantly related to any variables of interest. Primarily, bivariate correlations were completed to assess the association of age with all variables of interest (see Table 5). Age was found to be negatively correlated with *Attachment Anxiety* and *Trait Anxiety* and was therefore inserted into analyses as a covariate.

Table 5

Correlations between Study Variables

Measure	1	2	3	4	5	6
1. Attachment Avoidance	--					
2. Attachment Anxiety	.595**	--				
3. Defensiveness	-.241**	-.170**	--			
4. Trait Anxiety	.306**	.400**	-.358**	--		
5. Resilience	-.485**	-.392**	.340**	-.578**	--	
6. Age	-.088	-.141*	-.026	-.148*	.110	--

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

Next, a series of independent samples *t*-tests were conducted to determine whether there were significant differences by gender regarding all variables of interest. Gender was found to be significantly related to *Trait Anxiety*, such that females demonstrated higher anxiety than males, $t(264) = 3.19, p = .010$ (see Table 6). Therefore, gender was inserted as a covariate in analyses.

Table 6

T-test Results for the Effect of Gender on Study Variables

	Males		Females		<i>t</i> -test
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Attachment Avoidance	2.96	0.86	2.97	1.00	0.05
Attachment Anxiety	2.49	1.16	2.76	1.38	1.67
Defensiveness	14.57	6.38	15.40	6.88	0.99
Trait Anxiety	10.53	6.50	13.39	7.67	3.19*
Resilience	66.56	17.38	65.69	16.95	-0.41

* $p < .05$.

Using a univariate ANOVA, ethnicity was found to be marginally associated with *Attachment Anxiety*, $F(5, 255) = 2.22, p = .053$, partial $\eta^2 = .042$. The demographic variable of ethnicity was dummy coded (Caucasian = 0, $n = 202$; Other ethnicities = 1; $n = 64$; see Table 1 for a breakdown of ethnicities). A follow-up independent *t*-test revealed a significant difference between Caucasians ($M = 2.52, SD = 1.24$) and all other ethnicities ($M = 3.05, SD = 1.42$) on *Attachment Anxiety*, $t(264) = -2.84, p = .005$, in which Caucasians demonstrated lower levels of *Attachment Anxiety* than all other ethnicities. Therefore, the dummy coded ethnicity variable was included as a covariate.

Finally, a univariate ANOVA revealed that relationship status was significantly related to *Attachment Avoidance*, $F(3, 256) = 3.11, p = .027$, partial $\eta^2 = .035$. Post hoc tests indicated a significant difference between single participants ($M = 3.14, SD = 0.95$) and married participants ($M = 2.58, SD = 0.88$) only, $p < .001$, such that single participants demonstrated higher levels of *Attachment Avoidance* than married participants. Therefore, the demographic variable of relationship status was dummy coded (Single = 0; $n = 141$; Other relationship statuses = 1; $n = 125$) and inserted into analyses as a covariate. The demographic variables of education and sexual orientation were not significantly related to any variables of interest.

Hypothesis Testing

Hypothesis 1. Hypothesis 1, which stated that the attachment behaviors of anxiety and avoidance would significantly relate to the emotional coping style dimensions of defensiveness and trait anxiety, was assessed via two separate multiple regressions. First, *Defensiveness* was regressed on *Attachment Avoidance*, *Attachment Anxiety*, age, ethnicity, and relationship status. Contrary to the hypothesized positive relationship between *Attachment Avoidance* and *Defensiveness*, it was found that *Attachment Avoidance* negatively associated with *Defensiveness*, $\beta = -0.21, t(259) = -2.81, p = .005$, partial $r^2 = .028$. Similarly, the hypothesized negative relationship between *Attachment Anxiety* and *Defensiveness* was not confirmed, as no relationship was found between these two variables, $\beta = -0.07, t(259) = -0.93, p = .352$, partial $r^2 = .003$.

In the second multiple regression, *Trait Anxiety* was regressed on *Attachment Avoidance*, *Attachment Anxiety*, age, ethnicity, relationship status, and gender. The

results indicated that *Attachment Anxiety* was positively associated with *Trait Anxiety*, $\beta = 0.32$, $t(258) = 4.55$, $p < .001$, partial $r^2 = .063$, supporting the hypothesized relationship between these variables. Conversely, *Trait Anxiety* demonstrated no relationship with *Attachment Avoidance*, $\beta = 0.12$, $t(258) = 1.73$, $p = .084$, partial $r^2 = .009$. See Figure 10 for a graphical representation and Table 7 for complete results.

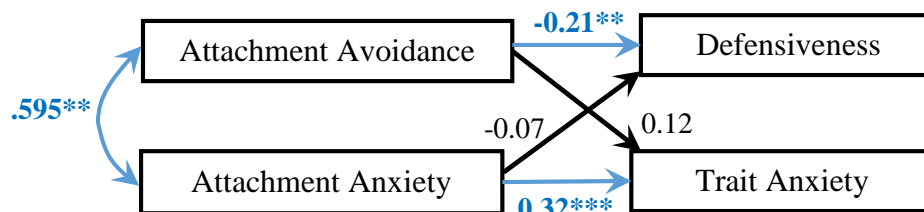


Figure 10. Multiple regression results for the hypothesized relations between attachment and emotional coping style dimensions.

Table 7

Standardized Regression Coefficients for Hypothesis 1

Regression and Predictors	β	SE	p	partial r^2
<i>Defensiveness</i>				
Attachment Avoidance	-0.21	0.53	.005**	.028
Attachment Anxiety	-0.07	0.39	.352	.003
Age	-0.05	0.16	.406	.002
Ethnicity	0.16	0.94	.009**	.024
Relationship Status	0.05	1.00	.457	.002
<i>Trait Anxiety</i>				
Attachment Avoidance	0.12	0.54	.084	.009
Attachment Anxiety	0.32	0.40	< .001***	.063
Age	-0.10	0.16	.094	.009
Ethnicity	-0.10	0.97	.081	.009
Relationship Status	0.02	1.04	.745	.000
Gender	-0.15	0.84	.011*	.020

* $p < .05$, ** $p < .01$, *** $p < .001$.

Hypotheses 1a-1d. Prior to assessing hypotheses 1a-1d, emotional coping styles were categorized by assigning high and low scores on the TMAS (i.e., trait anxiety; *Median* = 12.00) and M-C SDS (i.e., defensiveness; *Median* = 15.00) scales (Weinberger et al., 1979; see Tables 8 and 9) in order to explore the influence emotional coping styles in the traditional, categorical conceptualization. Each emotional coping style was dummy coded into several variables so that the coping style of interest for each analysis was coded 1 and all other styles were coded 0.

Table 8

Categorization of Emotional Coping Styles Using Median Splits

Coping Style	Scores	
	TMAS	M-C SDS
Low Anxious (LA)	Low	Low
High Anxious (HA)	High	Low
Defensive High Anxious (DHA)	High	High
Repressive (REP)	Low	High

Table 9

Frequency of Emotional Coping Styles

Emotional Coping Style	N	%
Low Anxious	66	24.8
High Anxious	85	32.0
Defensive High Anxious	43	16.2
Repressive	72	27.1

In order to assess hypotheses 1a-1d, which involved the odds of belonging to each emotional coping style depending on varying levels of *Attachment Avoidance* and *Attachment Anxiety*, a series of logistic regression analyses were conducted. Predictor variables included *Attachment Avoidance*, *Attachment Anxiety*, gender, age, ethnicity, and relationship status. Dependent variables were dummy coded so that the emotional coping style of interest for each analysis was coded 1 while all other styles were coded 0.

When assessing the predictor variables on the LA group, results indicated that *Attachment Anxiety* (odds ratio = 0.66, $p = .011$), but not *Attachment Avoidance* (odds ratio = 1.23, $p = .318$), significantly related to the LA emotional coping style (see Figure 11). The negative relationship between *Attachment Anxiety* and odds of belonging to the

LA group supports the hypothesized relationship between these variables. However, the lack of relationship between *Attachment Avoidance* and the LA coping style is contrary to the hypothesis.

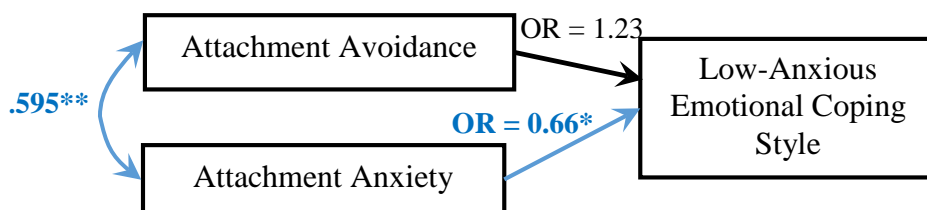


Figure 11. Logistic regression results for Low-Anxious ECS.

In the assessment of hypothesis 1b, *Attachment Anxiety* was found to significantly predict the odds of belonging to the HA group (odds ratio = 1.51, $p = .002$), whereas *Attachment Avoidance* did not (odds ratio = 1.32, $p = .131$), partially supporting this hypothesis (see Figure 12).

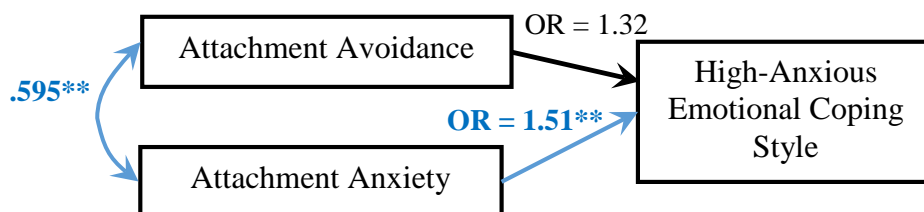


Figure 12. Logistic regression results for High-Anxious ECS.

Neither *Attachment Anxiety* (odds ratio = 1.20, $p = .252$) nor *Attachment Avoidance* (odds ratio = 1.00, $p = .964$) significantly predicted the odds of belonging to the DHA group (see Figure 13).

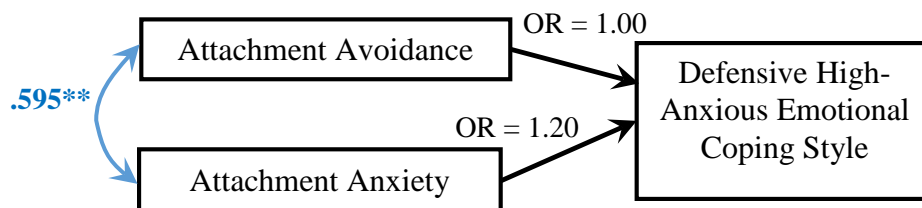


Figure 13. Logistic regression results for Defensive High-Anxious ECS.

Finally, *Attachment Avoidance* (odds ratio = 0.65, $p = .028$), but not *Attachment Anxiety* (odds ratio = 0.75, $p = .055$), significantly predicted the odds of belonging to the REP group (see Figure 14). Both of these relationships were contrary to hypothesis 1d. See Table 10 for complete results.

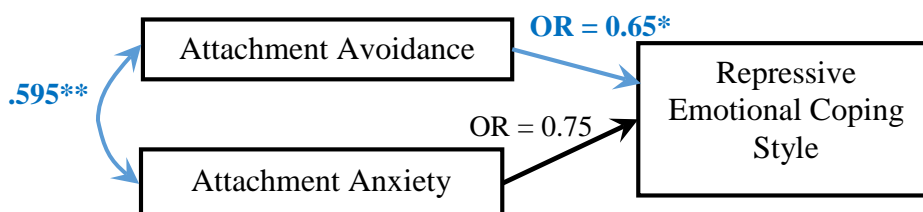


Figure 14. Logistic regression results for Repressive ECS.

Table 10

*Multiple Logistic Regression Results of Attachment Behaviors on Emotional Coping**Styles*

Regression and Predictors	<i>B</i>	<i>SE</i>	Wald	df	<i>p</i>	<i>Odds Ratio</i>
<i>Low Anxious</i>						
Attachment	0.20	0.20	1.00	1	.318	1.23
Avoidance						
Attachment Anxiety	-0.42	0.17	6.41	1	.011*	0.66
Gender	-0.59	0.30	3.89	1	.049*	0.55
Age	0.10	0.06	2.66	1	.103	1.11
Ethnicity	-0.31	0.37	0.70	1	.402	0.73
Relationship Status	-0.25	0.37	1.58	1	.510	0.78
<i>High Anxious</i>						
Attachment	0.28	0.18	2.28	1	.131	1.32
Avoidance						
Attachment Anxiety	0.41	0.13	9.36	1	.002**	1.51
Gender	0.24	0.29	0.66	1	.417	1.27
Age	-0.05	0.06	0.87	1	.351	0.95
Ethnicity	-0.61	0.35	3.02	1	.082	0.55
Relationship Status	-0.07	0.38	0.03	1	.854	0.93
<i>Defensive High Anxious</i>						
Attachment	-0.01	0.23	0.00	1	.964	0.99
Avoidance						
Attachment Anxiety	0.18	0.16	1.31	1	.252	1.20
Gender	0.44	0.37	1.41	1	.236	1.55
Age	-0.09	0.07	1.64	1	.201	0.92
Ethnicity	0.34	0.38	0.77	1	.381	1.40
Relationship Status	0.67	0.43	2.44	1	.118	1.95
<i>Repressive</i>						
Attachment	-0.43	0.20	4.80	1	.028*	0.65
Avoidance						
Attachment Anxiety	-0.29	0.15	3.68	1	.055	0.75
Gender	-0.00	0.30	0.00	1	.995	1.00
Age	0.01	0.06	0.06	1	.813	1.01
Ethnicity	0.65	0.34	3.68	1	.055	1.91
Relationship Status	-0.22	0.37	0.35	1	.553	0.81

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

Hypothesis 2. To assess the relationships between attachment behaviors and *Resilience*, a multiple regression analysis was conducted. *Resilience* was regressed onto the predictor variables of *Attachment Avoidance*, *Attachment Anxiety*, age, ethnicity, and relationship status. Both *Attachment Avoidance* ($\beta = -0.37$, $t(259) = -5.58$, $p < .001$, partial $r^2 = .088$) and *Attachment Anxiety* ($\beta = -0.15$, $t(259) = -2.24$, $p = .026$, partial $r^2 = .014$) were significantly associated with *Resilience* (see Table 11). However, a negative relationship was observed between *Attachment Avoidance* and *Resilience* as opposed to the hypothesized positive relationship, so that hypothesis 2 was partially confirmed (see Figure 15).

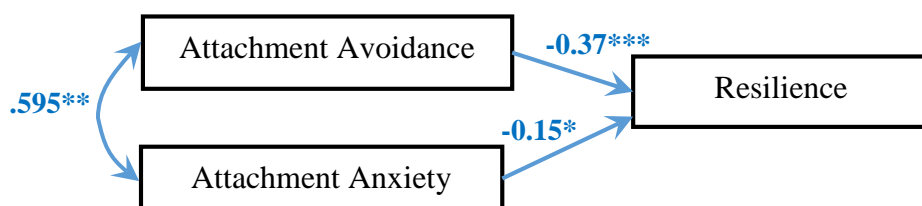


Figure 15. Multiple regression results for relations between attachment behaviors and resilience.

Table 11

Standardized Regression Coefficients for Hypothesis 2

Regression and Predictors	β	<i>SE</i>	<i>p</i>	partial r^2
<i>Resilience</i>				
Attachment Avoidance	-0.37	1.21	< .001***	.088
Attachment Anxiety	-0.15	0.89	.026*	.014
Age	0.03	0.37	.615	.001
Ethnicity	0.03	2.17	.530	.001
Relationship Status	0.01	2.30	.086	.008

* $p < .05$, *** $p < .001$.

In order to investigate whether an interaction between *Attachment Avoidance* and *Attachment Anxiety* would differentially predict *Resilience*, an exploratory multiple regression analysis was conducted. *Resilience* (CD-RISC) was regressed on the covariates of age, ethnicity, and relationship status, the centered variables of *Attachment Avoidance* and *Attachment Anxiety*, and the interaction of avoidance and anxiety. Results indicated that there was no relationship between the attachment behaviors interaction term and *Resilience* (see Table 12).

Table 12

Standardized Regression Coefficients for Hypothesis 2 Exploratory Analysis

Regression and Predictors	β	SE	p	partial r^2
<i>Resilience</i>				
Attachment Avoidance	-0.37	1.21	< .001***	.088
Attachment Anxiety	-0.15	0.90	.030*	.014
Avoid x Anxiety	-0.01	0.70	.876	.000
Age	0.03	0.37	.608	.001
Ethnicity	0.03	2.17	.531	.001
Relationship Status	0.10	2.32	.085	.008

* $p < .05$, *** $p < .001$.

In the attempt to further clarify the relationship between *Defensiveness*, *Trait Anxiety*, and *Resilience*, an exploratory multiple regression analysis was completed. *Resilience* (CD-RISC) was regressed on *Trait Anxiety*, *Defensiveness*, age, and gender. Results demonstrated that *Defensiveness* was positively associated with *Resilience*, $\beta = 0.15$, $t(261) = 2.72$, $p = .007$, partial $r^2 = .028$, and *Trait Anxiety* was negatively associated with *Resilience*, $\beta = -0.53$, $t(261) = -9.69$, $p < .001$, partial $r^2 = .264$ (see Table 13).

Table 13

Standardized Regression Coefficients for Trait Anxiety and Defensiveness on Resilience

Regression and Predictors	β	SE	p	partial r^2
<i>Resilience</i>				
Defensiveness	0.15	0.14	.007**	.028
Trait Anxiety	-0.53	0.13	< .001***	.264
Age	0.04	0.33	.430	.002
Gender	-0.07	1.77	.163	.007

** $p < .01$, *** $p < .001$.

Following this, the interaction effect of *Trait Anxiety* and *Defensiveness* on *Resilience* was assessed. *Resilience* was regressed on age, gender, the centered variables of *Trait Anxiety* and *Defensiveness*, and the interaction term of *Trait Anxiety* and *Defensiveness*. The interaction between *Trait Anxiety* and *Defensiveness* did not demonstrate a relationship with *Resilience*, $\beta = 0.09$, $t(260) = 1.65$, $p = .100$, partial $r^2 = .010$ (see Table 14).

Table 14

Standardized Regression Coefficients for Trait Anxiety and Defensiveness Interaction Analysis

Regression and Predictors	β	SE	p	partial r^2
<i>Resilience</i>				
Defensiveness	0.18	0.15	.002**	.036
Trait Anxiety	-0.52	0.13	< .001***	.255
Trait Anxiety x Defensiveness	0.09	0.02	.100	.010
Age	0.04	0.33	.402	.003
Gender	-0.07	1.76	.160	.008

** $p < .01$, *** $p < .001$.

Hypothesis 3. In order to ascertain whether *Trait Anxiety* and *Defensiveness* mediate the relationships between attachment behaviors and *Resilience*, a path analysis was conducted utilizing Mplus Version 7.0 (Muthén & Muthén, 1998-2012). Given the nonsignificant findings regarding the path between *Attachment Anxiety* and *Defensiveness* as well as *Attachment Avoidance* and *Trait Anxiety* within previous regression analyses, these paths were dropped from the original, hypothesized model.

The model had adequate overall and incremental fit $\chi^2 = 26.72$ ($p = .003$), RMSEA = .079 ($p = .083$; 90% CI = [0.04, 0.12]), CFI = .958, and SRMR = .049 (Hu & Bentler, 1999; Kline, 2011; Steiger, 2007). A total of four covariates were included in the model: gender, relationship status, ethnicity, and age.

Direct Effects. A series of significant direct effect pathways were detected within this model (see Table 15 for complete results; see Figure 16 for graphical representation). Of note, *Attachment Avoidance* demonstrated a negative relationship with *Defensiveness* ($\beta = -0.20$, $SE = 0.41$, $p = .001$) and *Attachment Anxiety* positively related to *Trait Anxiety* ($\beta = 0.36$, $SE = 0.31$, $p < .001$). *Trait Anxiety* was negatively related to *Resilience* ($\beta = -0.47$, $SE = 0.13$, $p < .001$) and *Defensiveness* did not demonstrate a relationship with *Resilience* ($\beta = 0.10$, $SE = 0.13$, $p = .058$). Finally, *Attachment Avoidance* was negatively related to *Resilience* ($\beta = -0.30$, $SE = 1.06$, $p < .001$) and *Attachment Anxiety* demonstrated no direct relationship with *Resilience* ($\beta = 0.01$, $SE = 0.82$, $p = .903$).

Indirect Effects. In order to assess hypothesis 3, indirect effects were tested using bootstrapped standard errors. Results indicated that *Trait Anxiety* mediated the relationship between *Attachment Anxiety* and *Resilience*, $\beta = -0.17$, $SE = 0.43$, $p < .001$, 95% CI [-0.23, -0.11]. However, *Defensiveness* did not mediate the relationship between *Attachment Avoidance* and *Resilience* ($\beta = -0.02$, $SE = 0.21$, $p = .090$, 95% CI [-0.04, 0.00]), so this hypothesis was largely unsupported (see Table 16).

Table 15

Direct Effect Standardized Path Coefficients for Hypothesis 3

Regression and Predictors	β	SE	t	p
<i>Resilience</i>				
Attachment Avoidance	-0.30	1.06	-5.11	< .001***
Attachment Anxiety	0.01	0.82	0.12	.903
Defensiveness	0.10	0.13	1.89	.058
Trait Anxiety	-0.47	0.13	-8.24	< .001***
Gender	-0.04	1.64	-0.85	.397
Age	-0.02	0.32	-0.29	.769
Ethnicity	-0.03	1.91	-0.59	.554
Relationship Status	0.11	1.79	2.42	.015*
<i>Trait Anxiety</i>				
Attachment Anxiety	0.36	0.31	6.58	< .001***
Gender	-0.16	0.72	-3.37	.001**
Age	-0.11	0.15	-1.96	.051
Ethnicity	-0.05	0.87	-1.00	.317
<i>Defensiveness</i>				
Attachment Avoidance	-0.20	0.41	-3.47	.001**
Relationship Status	0.04	1.00	0.56	.577
<i>Attachment Anxiety</i>				
Gender	-0.09	0.12	-1.91	.056
Age	-0.10	0.03	-1.52	.129
Ethnicity	0.11	0.17	2.02	.043*
<i>Attachment Avoidance</i>				
Relationship Status	-0.13	0.10	-2.76	.006**

* $p < .05$, ** $p < .01$, *** $p < .001$.

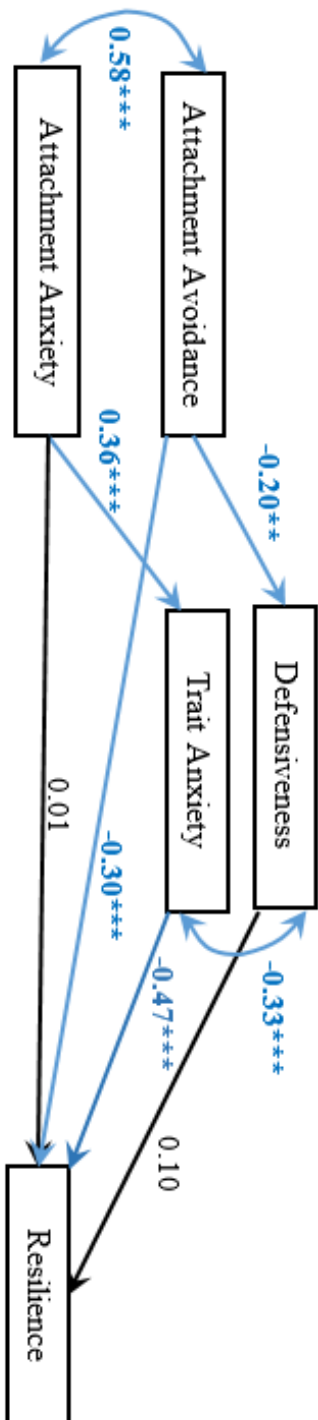


Figure 16. Direct effect standardized path coefficients for relations between attachment behaviors, ECS dimensional variables and resilience.

Table 16

Indirect Effect Standardized Path Coefficients for Hypothesis 3

Model	β	SE	t	p	95% CI
Attachment Avoidance via Defensiveness	-0.02	0.21	-1.70	.090	[-0.04, 0.00]
Attachment Anxiety via Trait Anxiety	-0.17	0.43	-5.10	< .001***	[-0.23, -0.11]

*** $p < .001$.

CHAPTER IV

DISCUSSION

The present study sought to (1) investigate the theoretical parallel between the attachment and the emotional coping styles literature as well as (2) explore the mediating role of emotional coping styles in the relationship between attachment behaviors and resilience. While previous research has demonstrated a positive relationship between the repressive emotional coping style and the avoidant attachment style (e.g., Vetere & Myers, 2002), I was able to identify no previous research that has specifically investigated the connection between attachment behaviors and all four emotional coping styles as designated by Weinberger et al. (1979). Similarly, although a few studies have investigated the relationships between the repressive emotional coping style and resilience (e.g., Coifman et al., 2007) and attachment and resilience (e.g., Karreman & Vingerhoets, 2012), there is a need for more research in these areas in order to increase our understanding of these constructs and the systematical interrelationships among them.

Attachment Behaviors and the Continuous Dimensions of Emotional Coping Styles

The first aim of this study was to explore the relationship between attachment behaviors and the continuous dimensions of trait anxiety and defensiveness. Specifically, it was expected that attachment avoidance would negatively relate to trait anxiety, attachment anxiety would positively relate to trait anxiety, attachment avoidance would positively relate to defensiveness, and attachment anxiety would negatively relate to defensiveness (see Figure 2). These hypotheses were largely unsupported. In regard to the relationship between attachment behaviors and trait anxiety, attachment anxiety was

positively associated with trait anxiety. This finding suggests that having an anxious attachment influences general anxiety levels in a person, such that higher attachment anxiety can affect individual differences in coping. However, the directionality of this relationship is unclear as individual temperament may underlie both attachment and trait anxiety. Temperament refers to innate individual differences in responding to environmental stimuli and is thought to serve as a primary basis for the development of coping (Skinner & Zimmer-Gembeck, 2007). Research has demonstrated that possessing a temperament that is characterized by heightened sensitivity to threat (i.e., anxious) can predispose individuals to developing anxiety disorders and insecure attachment styles (Fox, Henderson, Marshall, Nichols, & Ghera, 2005; Fox & Pine, 2012). Similarly, an individual's temperament can interact with parenting quality (i.e., attachment) to influence the development of coping and stress management (Gunnar & Cheatham, 2003). It seems as if temperament can both affect the development of attachment as well as influence general anxiety levels in a person. Because of the lack of clarity surrounding the gene-environment interaction of temperament with these constructs, it cannot be determined whether trait anxiety precedes attachment or attachment informs trait anxiety.

Contrary to the hypothesis, there was no observed relationship between attachment avoidance and trait anxiety. The lack of relationship between these variables may support the assertion that those with higher attachment avoidance tend to engage in defensive avoidance of negative emotionality (Kobak & Sceery, 1988). According to this postulation, these individuals do not typically, consciously experience anxiety due to their tendency to divert their attention away from anxiety provoking stimuli (Mikulincer & Shaver, 2007). Fraley and Shaver (1997, 1998) demonstrated that dismissive-avoidant

adults are able to successfully deactivate their attachment system so that they do not experience anxiety within typically distressing situations, such as separation from an attachment figure. Dismissive individuals are able to elude the experience of attachment anxiety by avoiding the formation of attachment bonds in adulthood (Fraley & Davis, 1997), thereby reducing the threat of vulnerability or rejection that would activate the attachment system. This ability to avoid anxiety in attachment relationships suggests that avoidantly attached adults may develop uniquely organized psychological processes of integrating emotional information that allows them to avoid experiencing high levels of anxiety (Fraley, Davis, & Shaver, 1998).

In regard to the relationship between attachment behaviors and defensiveness, attachment anxiety demonstrated no relationship with defensiveness whereas attachment avoidance was negatively associated with defensiveness, such that an increase in attachment avoidance was associated with a decrease in defensiveness. Because a common feature of both avoidant attachment and the repressive coping style is the defensive avoidance of negative emotion (Eagle, 2000), this result is surprising. It suggests that defensiveness within close relationships and defensiveness as related to general emotional coping are independent constructs. As noted previously, dismissive-avoidant adults are able to avoid activating the attachment system by resisting the formation of significant attachment bonds (Fraley & Shaver, 1997; Fraley & Shaver, 1998), allowing them to evade the experience of attachment-related anxiety. However, Dozier and Kobak (1992) demonstrated that dismissive-avoidant individuals do experience distress when required to think about early attachment experiences with parents, implying that avoidantly attached individuals are capable of attachment system

activation within relationships in which they have emotional investment (Fraley et al., 1998). In contrast, defensiveness within emotional coping styles is detected by observing the physiological experience of anxiety in response to stress, while noting the individual's lack of conscious awareness of experiencing said anxiety (Weinberger et al., 1979). It seems as if avoidantly attached individuals are able to utilize defensiveness proactively in order to avoid both physical and emotional experiences of anxiety, whereas repressors employ defensiveness in response to physical arousal in the attempt to avoid consciously acknowledging their anxiety.

According to Fraley, Davis, and Shaver (1998), repressors and avoidant adults are distinct due to a difference in the goals underlying defensiveness. Repressors are thought to enact defensive strategies in order to avoid any potential for social disapproval whereas avoidantly attached individuals aim to avoid rejection from an emotionally relevant attachment figure. However, Weinberger and Davidson (1994) demonstrated that repressors do not react defensively due to a fear of social disapproval, but are actually motivated to reinforce their self-concept of being generally emotionally unreactive. This finding contradicts the theory set forth by Fraley and associates (1998) and suggests that repressors are internally motivated to avoid negative affect rather socially motivated.

The main difference in the utilization of defensive avoidance between these two groups is in regard to their self-concept. Dismissive adults are not likely to allow attachment-related experiences to be integrated into their self-concepts, so that negative experiences genuinely do not affect how they view themselves (Fraley et al., 1998). However, repressors are more sensitive to information that threatens their self-concept

and engage in self-deceptive defensiveness in order to disregard any information that is contrary to their self-perception (Weinberger, 1990). These subtle distinctions suggest that repressors and avoidantly attached adults differ in their processing of emotional information.

Attachment Behaviors and Emotional Coping Styles

The second aim of this study was to investigate the relationship between attachment behaviors and emotional coping styles in the traditional, categorical conceptualization. Although dichotomizing continuous variables can result in a loss of approximately 36% of true score variance (Cohen, 1983), this method of categorizing emotional coping styles is the most prevalent method used in current research (Weinberger et al., 1979). Therefore, these analyses were conducted in addition to analyses utilizing continuous scores in order to better understand the influence of emotional coping styles on variables of interest. It was expected that each attachment behavior would differentially predict the odds of belonging to each emotional coping style (see Figures 3-6).

Upon investigation of hypothesis 1a, higher attachment anxiety was associated with lower odds of belonging to the low-anxious emotional coping style, which supported the hypothesized relationship between these two variables. However, contrary to the hypothesis, no relationship between attachment avoidance and the low-anxious style was found. In regard to the relationship between attachment behaviors and the high-anxious emotional coping style, increased levels of attachment anxiety significantly increased the odds of belonging to the high-anxious emotional coping style. However, attachment avoidance did not demonstrate a relationship with this coping style.

Given the findings regarding the relationship between the continuous measures of emotional coping styles and attachment behaviors, these results seem to echo the idea that while attachment anxiety is directly related to trait anxiety, defensiveness is not similarly affected. The relationship between attachment anxiety and trait anxiety may exist due to the lack of defensive coping within this high anxiety population. As previously discussed, those with higher attachment anxiety tend to overemphasize their distress and seek out social support whereas those with higher avoidant attachment tend to deemphasize their stressors and engage in compulsive self-reliance in order to cope (Bowlby, 1977; Main & Solomon, 1986; Mikulincer & Shaver, 2007). The differences between these typical coping strategies may account for the differences observed in the relationships between attachment behaviors and emotional coping styles.

Unlike the low-anxious and high-anxious coping style results, neither attachment avoidance nor attachment anxiety demonstrated any relationship with the defensive high-anxious emotional coping style. However, sample size is a limitation of this particular analysis, as only 43 individuals in this sample displayed this emotional coping style. Future research with an increased sample size may help to illuminate the specific relationships within this emotional coping style.

Finally, hypothesis 1d, which investigated the relationship between the attachment behaviors and the repressive emotional coping style, was not supported within this study. Contrary to the hypothesis, higher attachment avoidance was actually associated with a decrease in the odds of belonging to the repressive emotional coping style, whereas attachment anxiety demonstrated no relationship whatsoever. The negative relationship observed between attachment avoidance and the repressive

emotional coping style parallels the relationship between the continuous variables investigated in hypothesis 1. Interestingly, in both the defensive high-anxious and the repressive emotional coping styles, there was no observed relationship regarding attachment anxiety. This finding may provide evidence that those who report higher defensiveness are more likely to experience a dissociation from their somatic experience of anxiety, further supporting the idea that although defensiveness and attachment avoidance demonstrate similar coping strategies, they remain distinct constructs.

The finding that higher attachment avoidance decreases the odds of having a repressive coping style contradicts the findings of Vetere and Myers (2002), which demonstrated that repressors are more likely to have an avoidant attachment style. However, Vetere and Myers assessed attachment styles with the Romantic Adult Attachment Style Questionnaire (RAASQ; Simpson, 1990), which assesses attachment by providing three continuous scores pertaining to secure, anxious/ambivalent, and avoidant attachment. This method of assessment does not parallel Bartholomew's (1990) four categories of attachment, nor does it assess attachment along the dimensions of avoidance and anxiety as recommended by Fraley and colleagues (2015). Similarly, the RAASQ focuses exclusively on adult romantic relationships, whereas the current study created a global attachment score informed by several target relationships. These methodological differences may account for the discrepancy in findings. However, future research should attempt to clarify the relationship between the repressive coping style and avoidant attachment.

Attachment Behaviors and Resilience

The third aim of this study was to investigate the relationship between attachment behaviors and resilience. It was expected that attachment avoidance would positively relate to resilience whereas attachment anxiety was expected to negatively relate to resilience (Figure 7). Upon investigation of this hypothesis, it was found that attachment anxiety and attachment avoidance both negatively predicted resilience, thereby partially supporting the hypothesis. The relationship between attachment anxiety and resilience coincides with previous research (e.g., Karreman & Vingerhoets, 2012). As mentioned previously, individuals with high attachment anxiety tend to be hypersensitive to perceived rejection and overemphasize their need for social support (Mikulincer & Shaver, 2007), which may undermine their ability to demonstrate resilience.

The finding that attachment avoidance negatively predicts resilience is in contrast to Karreman and Vingerhoets' (2012) study, which found a positive relationship between the dismissive attachment style and resilience. However, Karreman and Vingerhoets (2012) assessed attachment categorically rather than continuously and also utilized a different measure of resilience than the current study, which may account for this discrepancy. Similarly, research on the coping strategies of avoidantly attached individuals is inconclusive. When asked to self-report coping strategies, avoidant individuals tend to report strategies that are similar to secure individuals. However, unlike securely attached individuals, avoidant individuals have been found to evaluate distressing events as highly stressful, yet also endorse the belief that they are capable of managing this stress (Mikulincer & Shaver, 2007). These conflicting coping responses

make it difficult to ascertain whether possessing an avoidant attachment style can authentically promote resilience within these individuals.

When attempting to conceptualize the continuous attachment behaviors within their traditional styles, these results suggest that that securely attached individuals tend to demonstrate higher levels of resilience than insecurely attached individuals. Specifically, fearfully attached individuals (i.e., high avoidance, high anxiety) report the lowest level of resilience whereas securely attached individuals (i.e., low avoidance, low anxiety) report the highest level of resilience. Dismissive and preoccupied attachment styles report resilience levels between the two extremes. Follow-up exploratory analyses revealed no significant relationship between the interaction of attachment behaviors and resilience, providing no evidence that it varies as a function of attachment style.

Emotional Coping Styles and Resilience

Exploratory analyses were completed to assess the relationship between emotional coping style dimensions and resilience. Trait anxiety was found to negatively predict resilience, such that an increase in trait anxiety was associated with a decrease in resilience. Because those with higher anxiety are more vulnerable to potentially threatening stimuli (Derakshan & Eysenck, 1997b; Mikulincer & Shaver, 2007), the observed decrease in reported resilience for these individuals was expected.

Defensiveness, on the other hand, positively predicted resilience, such that an increase in defensiveness led to an increase in resilience. This finding coincides with Coifman et al.'s (2007) findings that repressive coping can be adaptive to individuals experiencing heightened levels of stress. According to Eysenck's four-factor theory of trait anxiety (Eysenck, 1997), this adaptation to stress is accomplished with the use of

cognitive biases that inform an individual's overall perception of threat. Specifically, repressors are thought to both divert their attention away from negative information as well as interpret information in a nonthreatening manner (Derakshan & Eysenck, 1997b). These strategies would necessarily allow for increased resilience in the face of adversity. It seems that individuals with higher levels of defensiveness tend to reduce their overall vulnerability to stressful situations by altering their perceptions regarding the magnitude of stress. However, as discussed previously, this adaptation to stress is accompanied by an increased vulnerability to physical health risks such as hypertension, cancer, and cardiovascular diseases (Mund & Mitte, 2012). Individuals who employ defensiveness as a coping mechanism may not be adequately managing their stress and therefore inadvertently give rise to the development of stress-related physical health problems. It remains unclear whether the self-deceptive quality of defensiveness undermines the adaptation to stress that has been documented within this population.

Mediating Role of Emotional Coping Styles

The final aim of the present study was to investigate the mediating roles that the emotional coping variables of trait anxiety and defensiveness have on the relationship between attachment behaviors and resilience (see Figure 8). Only trait anxiety mediated the relationship between attachment anxiety and resilience, such that trait anxiety accounts for the relationship between attachment anxiety and resilience. Although higher levels of attachment anxiety are related to higher levels of trait anxiety, it seems as if trait anxiety, or anxiety in response to general stress versus relational stress, is more influential on resilience levels than attachment anxiety.

Clinical Implications

The results of this study provide valuable theoretical and practical insights for understanding and treating attachment related disorders and issues related to stress and coping. Primarily, this study furthered our theoretical understanding of repressive coping and avoidant attachment by demonstrating that those with avoidant attachment style employ a similar, but distinct, method of coping when compared to repressors. Both avoidant individuals and repressors divert attention away from stressful information, but avoidant individuals are more likely to perceive information as more threatening (Mikulincer & Shaver, 2007) than repressors (Derakshan & Eysenck, 1997b). Similarly, both groups display an emotional dissociation from negative affect and appraise themselves as able to manage stress, but repressors employ this tactic in a self-deceptive manner (Weinberger, 1990) whereas avoidant individuals do not utilize self-deception (Fraley et al., 1998). These two groups differ in their motivations for employing the defensiveness coping strategy as well as their overall processing of emotional information, which may necessitate different intervention techniques in order to increase treatment effectiveness.

Second, the fact that higher levels of defensiveness was positively associated with resilience considerably undermines the construct of resilience as an indicator of overall well-being. Because resilience is commonly measured as a stress-resistant attitude that requires an appraisal of one's ability to manage stress (Connor & Davidson, 2003; Karreman & Vingerhoets, 2012), repressors are particularly likely to rate themselves as highly resilient in order to protect their self-concept (Myers, 2010; Weinberger, 1990). However, the self-deceptive quality of defensiveness within this population raises the

question of whether repressors' perception of their ability to manage stress authentically matches their ability to do so. Repressors' increased vulnerability to developing physical health problems (Cooke et al., 2003; Mund & Mitte, 2012; Myers et al., 2005) suggests a significant disconnect between their cognitive perceptions and physical reactions to stress. Given this disconnect, it is recommended that clinical psychologists and health practitioners not rely on a measure of resilience as an indicator of well-being, but instead assess psychological resilience and well-being in conjunction with physiological measures of stress and anxiety in order to more adequately intervene with this population.

Future Research

Future research investigating the developmental underpinnings of the defensive avoidance strategy is needed. Specifically, increased effort in uncovering important developmental experiences that promote the self-deceptive defensiveness utilized by repressors would both move the literature forward and alert clinicians to vulnerable developmental periods where intervention would be most effective. Likewise, further investigations should focus on determining whether repressors are vulnerable to physical health problems due to ineffective stress management, which would undermine the documented protective quality of defensiveness. Increased understanding regarding the process of emotional coping can inform intervention techniques aimed to circumvent the negative health trajectories associated with this population.

Similarly, research aimed at comparing differences in physical experiences of anxiety during periods of distress between attachment and emotional coping styles can further our understanding of how these two populations differentially react to stress.

Although trait anxiety and attachment anxiety demonstrated a positive relationship in this

study, it is unclear whether anxiety levels are similar when elicited by distress within close relationships versus distress due to general coping. Likewise, examining the somatic experience of anxiety between avoidantly attached individuals and repressors will help to further distinguish how these two groups differ in their reactions to stress.

Strengths and Limitations

Certain limitations need to be accounted for when interpreting these results. Primarily, the constructs investigated within this study are influenced by developmental experiences, but were assessed with an adult population using a cross-sectional design. In order to better understand the development of coping and the experiences that impact coping, these constructs should be studied longitudinally throughout the lifespan. Second, participants in this study were not recruited for equality in sample size regarding emotional coping styles, but rather categorized prior to analyses. Due to this, there was not an equal sample size across emotional coping styles and the analyses suffered from a lack of power, specifically within the defensive high-anxious emotional coping category. Similarly, the use of median splits to categorize emotional coping styles limits these analyses. Dichotomizing continuous variables to create categories decreases overall statistical power comparable to discarding approximately a third of collected data cases (Altman & Royston, 2006), which necessarily leads to an underestimation of effect sizes as well as loss of true score variance (Cohen, 1983) and inflation of type I error (Austin & Brunner, 2004). However, these limitations are circumvented by the use of both continuous and categorical analyses within this study.

Additionally, the operational definition of resilience as a stress-resistant attitude limits our ability to interpret these findings. As noted previously, ambiguity exists within

the resilience literature as to what specific behaviors and experiences of adversity are required to adequately constitute resilience (Luther et al., 2000; Rutter, 2013). Because resilience was assessed as a self-reported stress-resistant attitude, there was no opportunity to evaluate individual experiences of adversity in order to verify that resilient attitudes were a function of these experiences. However, as discussed above, the assessment of what constitutes an adverse experience is very subjective as well and, if attempted within this study, would have presented its own challenges. Future research utilizing a more stringent, experimental approach to this subject would greatly clarify this lingering confusion within the resilience literature.

In addition to the resilience measure, all of the variables in this study were collected with self-report measures. Although the validity and reliability of these measures were assessed, it is possible that the observed effects were strengthened by shared method variance. Future research assessing these variables utilizing different methods and experimental designs would increase confidence in these findings as well as increase the ability to make causal conclusions. Finally, the sample was conveniently recruited online from Amazon's MTurk and sample age was restricted to those 18 to 29, which prohibits findings from being generalized beyond technologically inclined individuals within this age range.

Although the study contains limitations, it also contains considerable strengths. To the best of the author's knowledge, no previous research has investigated the relationship between attachment behaviors and all four emotional coping styles or investigated the relationship between emotional coping styles and resilience. Similarly, no, or relatively little, research has been conducted investigating emotional coping styles

continuously as well as categorically, which certainly allows for increased understanding of the mechanisms underlying emotional coping styles.

CHAPTER V

CONCLUSIONS

Collectively, these results imply that although attachment behaviors may influence certain aspects of emotional coping styles, the two constructs are distinct in their representations of coping and their relations to resilience. The negative relationship observed between avoidant attachment behaviors and defensiveness suggests that, although repressive coping and avoidant attachment share similar coping strategies, the underlying motives for employing defensive strategies are unique. Similarly, these motivational differences may illuminate their differential relationships with resilience. Because resilience is commonly conceptualized as a stress-resistant attitude, repressors are more likely to rate themselves as highly resilient in order to protect their own self-concept, which may not be an accurate portrayal of their ability to manage stress. Further research investigating the development of self-deceptive defensiveness and its ability to act as a protective mechanism from stress is required.

REFERENCES

- Ainsworth, M. D. S. (1982). Attachment: Retrospect and prospect, in C. M. Parkes & J. Stevenson-Hinde (Eds), *The Place of Attachment in Human Behavior*. New York: Basic Books.
- Ainsworth, M. D. S. (1989) Attachment beyond infancy. *American Psychologist*, 44(4), 709-716.
- Ainsworth, M. S., & Bell, S. M. (1970). Attachment, exploration, and separation: Illustrated by the behavior of one-year-olds in a strange situation. *Child Development*, 41(1), 49-67.
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the Strange Situation*. Hillsdale, NJ: Erlbaum.
- Altman, D. G., & Royston, P. (2006). The cost of dichotomising continuous variables. *BMJ: British Medical Journal*, 332(7549), 1080.
- Asendorpf, J. B., & Scherer, K. R. (1983). The discrepant repressor: Differentiation between low anxiety, high anxiety, and repression of anxiety by autonomic-facial-verbal patterns of behaviour. *Journal of Personality and Social Psychology*, 45(6), 1334-1346. doi: 10.1037/0022-3514.45.6.1334
- Austin, P. C., & Brunner, L. J. (2004). Inflation of the type I error rate when a continuous confounding variable is categorized in logistic regression analyses. *Statistics in medicine*, 23(7), 1159-1178.
- Barger, S. D., Kircher, J. C., & Croyle, R. T. (1997). The effects of social context and

- defensiveness on the physiological responses of repressive copers. *Journal of Personality and Social Psychology*, 73(5), 1118-1128.
- Bartholomew, K. (1990). Avoidance of intimacy: an attachment perspective. *Journal of Social and Personal Relationships*, 7(2), 147-178.
- Beasley, M., Thompson, T., & Davidson, J. (2003). Resilience in response to life stress: The effects of coping and cognitive hardiness. *Personality and Individual Differences*, 34(1), 77-95. doi: 10.1016/S0191-8869(02)00027-2
- Bendig, A. W. (1956). The development of a short form of the Manifest Anxiety Scale. *Journal of Consulting Psychology*, 20(5), 384. doi: 10.1037/h0045580
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist*, 59(1), 20-28.
- Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment*. New York: Basic Books.
- Bowlby, J. (1977). The making and breaking of affectional bonds: I. Aetiology and psychopathology in the light of attachment theory. *The British Journal of Psychiatry*, 130(3), 201-210. doi: 10.1192/bjp.130.3.201
- Bowlby, J. (1980). *Attachment and loss: Vol. 3. Loss: Sadness and depression*. New York: Basic Books.
- Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships*, 46-76. New York: Guilford Press.

- Buhrmester, M. D., Kwang, T., Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6(1). doi: 10.1177/1745691610393980
- Burns, R. A., Anstey, K. J. (2010). The conner-davidson resilience scale (CD-RISC): Testing the invariance of a uni-dimensional resilience measure that is independent of positive and negative affect. *Personality and Individual Differences*, 48(5), 527-531. doi: 10.1016/j.paid.2009.11.026
- Campbell-Sills, L., Cohan, S. L., & Stein, M. B. (2006). Relationship of resilience to personality, coping, and psychiatric symptoms in young adults. *Behaviour Research and Therapy*, 44(4), 585-599. doi: 10.1016/j.brat.2005.05.001
- Campbell-Sills, L., Forde, D. R., Stein, M. B. (2009). Demographic and childhood environmental predictors of resilience in a community sample. *Journal of Psychiatric Research*, 43(12), 1007-1012. doi: 10.1016/j.jpsychires.2009.01.013
- Cassidy, J. (1994). Emotion regulation: Influences of attachment relationships. *Monographs of the Society for Research in Child Development*, 59(2-3), 228-249.
- Cassidy, J., & Berlin, L. J. (1994). The insecure / ambivalent pattern of attachment: Theory and research. *Child Development*, 65(4), 971-981.
- Cederblad, M. (1996). Fifty years of epidemiologic studies in child and adolescent psychiatry in Sweden. *Nordic Journal of Psychiatry*, 50(sup36), 55-66.
- Cicchetti, D., Rogosch, F. A., Lynch, M., & Holt, K. D. (1993). Resilience in maltreated children: Processes leading to adaptive outcome. *Development and Psychopathology*, 5(4), 629-647.

- Cohen J. (1983). The cost of dichotomization. *Applied Psychological Measurement*, 7(3), 249-253.
- Coifman, K. G., Bonanno, G. A., Ray, R. D., & Gross, J. J. (2007). Does repressive coping promote resilience? Affective–autonomic response discrepancy during bereavement. *Journal of Personality and Social Psychology*, 92(4), 745-758.
- Cooke, L., Myers, L.B., & Derakshan, N. (2003). Adherence, repressive coping and denial in asthma patients. *Psychology, Health and Medicine*, 8, 35-44.
- Condly, S. J. (2006). Resilience in children: A review of literature with implications for education. *Urban Education*, 41(3), 211-236. doi: 10.1177/0042085906287902
- Connor, K. M., & Davidson, J. R. T. (2003). Development of a new resilience scale: The Connor–Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*, 18(2), 76–82.
- Contrada, R. J., Czarnecki, E. M., & Li-Chern Pan, R. (1997). Health damaging personality traits and verbal–autonomic dissociation: The role of self-control and environmental control. *Health Psychology*, 16(5), 451–457. doi: 10.1037/0278-6133.16.5.451
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24(4), 349-354.
- Crowne, D. P., & Marlowe, D. (1964). *The approval motive: Studies in evaluative dependence*. New York: Wiley.
- Derakshan, N., & Eysenck, M. W. (1997a). Interpretive biases for one's own behavior and physiology in high-trait anxious individuals and repressors. *Journal of Personality and Social Psychology*, 73(4), 816-825. doi: 10.1037/0022-

3514.73.4.816

- Derakshan, N., & Eysenck, M. W. (1997b). Repression and repressors: Theoretical and experimental approaches. *European Psychologist, 2*(3), 235-246. <http://dx.doi.org/10.1027/1016-9040.2.3.235>
- Diamond, L. M., Hicks, A. M., & Otter-Henderson, K. (2006). Physiological evidence for repressive coping among avoidantly attached adults. *Journal of Social and Personal Relationships, 23*(2), 205-229. doi: 10.1177/0265407506062470
- Ditzen, B., Schmidt, S., Strauss, B., Nater, U. M., Ehler U., Heinrichs, M. (2008). Adult attachment and social support interact to reduce psychological but not cortisol responses to stress. *Psychosomatic Research, 64*(5), 479-486.
- Dozier, M., & Kobak, R. R. (1992). Psychophysiology in attachment interviews: Converging evidence for deactivating strategies. *Annual Progress in Child Psychiatry & Child Development, 63*(6), 80-92.
- Dutra, L., Bureau, J., Holmes, B., Lyubchik, A., & Lyons-Ruth, K. (2009). Quality of early care and childhood trauma: A prospective study of developmental pathways to dissociation. *The Journal of Nervous and Mental Disease, 197*(6), 383–390.
- Eagle, M. (2000). Repression: Part 2 of II. *Psychoanalytic Review, 87*(2), 161-187.
- Elder, G. H. (1974). *Children of the Great Depression*. Chicago: University of Chicago Press.
- Eysenck, M. W. (1997). *Anxiety and cognition: A unified theory*. Hove, England: Psychology Press/Erlbaum (UK) Taylor & Francis.
- Fox, N. A., Henderson, H. A., Marshall, P. J., Nichols, K. E., & Ghera, M. M. (2005). Behavioral inhibition: Linking biology and behavior within a developmental

framework. *Annual Review of Psychology*, 56, 235-262.

<http://dx.doi.org/10.1146/annurev.psych.55.090902.141532>

Fox, N. A., & Pine, D. S. (2012). Temperament and the emergence of anxiety disorders. *Journal of the American Academy of Child & Adolescent Psychiatry*, 51(2), 125-128. doi: 10.1016/j.jaac.2011.10.006

Fraley, R. C., & Davis, K. E. (1997). Attachment formation and transfer in young adults' close friendships and romantic relationships. *Personal Relationships*, 4(2), 131-144. <http://dx.doi.org/10.1111/j.1475-6811.1997.tb00135.x>

Fraley, R. C., Davis, K. E., & Shaver, P. R. (1998). Dismissing-avoidance and the defensive organization of emotion, cognition, and behavior. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 249-279). New York: Guilford Press.

Fraley, R. C., Heffernan, M. E., Vicary, A. M., & Brumbaugh, C. C. (2011). The experiences in close relationships—Relationship Structures Questionnaire: A method for assessing attachment orientations across relationships. *Psychological Assessment*, 23(3), 615-625. doi: 10.1037/a0022898

Fraley, R. C., Hudson, N. W., Heffernan, M. E., Segal, N. (2015). Are adult attachment styles categorical or dimensional? A taxometric analysis of general and relationship-specific attachment orientations. *Journal of Personality and Social Psychology*, 109(2), 354-368. doi: 10.1037/pspp0000027

Fraley, R. C., Niedenthal, P. M., Marks, M. J., Brumbaugh, C. C., & Vicary, A. (2006). Adult attachment and the perception of emotional expressions: Probing the

- hyperactivating strategies underlying anxious attachment. *Journal of Personality*, 74(4), 1163-1190.
- Fraley, R. C., & Shaver, P. R. (1997). Adult attachment and the suppression of unwanted thoughts. *Journal of Personality and Social Psychology*, 73(5), 1080-1091. <http://dx.doi.org/10.1037/0022-3514.73.5.1080>
- Fraley, R. C., & Shaver, P. R. (1998). Airport separations: A naturalistic study of adult attachment dynamics in separating couples. *Journal of Personality and Social Psychology*, 75(5), 1198-1212. <http://dx.doi.org/10.1037/0022-3514.75.5.1198>
- Fraley R. C., & Shaver P. R. (2000) Adult romantic attachment: Theoretical developments, emerging controversies, and unanswered questions. *Review of General Psychology*, 4(2), 132-154. doi: 10.1037/1089-2680.4.2.132
- Fraley, R. C., Vicary, A. M., Brumbaugh, C. C., & Roisman, G. I. (2011). Patterns of stability in adult attachment: An empirical test of two models of continuity and change. *Journal of Personality and Social Psychology*, 101(5), 974-992. doi: 10.1037/a0024150
- Fraley, R. C., & Waller, N. G. (1998). Adult attachment patterns: A test of the typological model. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships*, 77-114. New York: Guilford Press.
- Geraerts, E., Merckelbach, H., Jelicic, M., & Smeets, E. (2006). Long term consequences of suppression of intrusive anxious thoughts and repressive coping. *Behaviour Research & Therapy*, 44(10), 1451-1460.
- Gunnar, M. R., & Cheatham, C. L. (2003). Brain and behavior interface: Stress and the developing brain. *Infant mental health journal*, 24(3), 195-211.

- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52(3), 511-524. doi:10.1037/0022-3514.52.3.511
- Hodges, W. F. (1976). The psychophysiology of anxiety. In M. Zuckerman & C. D. Spielberger (Eds.), *Emotions and anxiety: New concepts, methods, and applications*. New York: Halstead Press.
- Horton, J., & Chilton, L. (2010). The labor economics of paid crowdsourcing. *Proceedings of the 11th ACM Conference on Electronic Commerce*, 209-218. doi: 10.1145/1807342.1807376
- Horton, J. J., Rand, D. G., & Zeckhauser, R. J. (2011). The online laboratory: Conducting experiments in a real labor market. *Experimental Economics*, 14(3), 399-425.
- Howe, J. (2006). The rise of crowdsourcing. *Wired magazine*, 14(6), 1-4.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55.
- Kahn, M., & Schill T. (1971). Anxiety report in defensive and nondefensive repressors. *Journal of Consulting and Clinical Psychology*, 36(2), 300.
- Karreman, A., & Vingerhoets, J. J. M. (2012). Attachment and well-being: The mediating role of emotion regulation and resilience. *Personality and Individual Differences*, 53, 821-826. doi: 10.1016/j.paid.2012.06.014.
- Kline, R. B. (2011). *Principles and practice of structural equation modeling*. Guilford press.

- Kobak, R. R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation and representations of self and others. *Child Development, 59*(1), 135-146.
- Landers, R. N. & Behrend, T. S. (2015). An inconvenient truth: Arbitrary distinctions between organizations, Mechanical Turk, and other convenience samples. *Industrial and Organizational Psychology, 8*(2), 142-164.
- Langens, T. A., & Morth, S. (2003). Repressive coping and the use of passive and active coping strategies. *Personality and Individual Differences, 35*(2), 461–473. doi: 10.1016/S0191-8869(02)00207-6
- Levitt, E. E. (1967). *The psychology of anxiety*. New York: Bobbs-Merrill.
- Little, R. J. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association, 83*(404), 1198-1202.
- Luthar, S. S., Cicchetti, D., Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development, 71*(3), 543-562. doi: 10.1111/1467-8624.00164
- Main, M., & Solomon, J. (1986). Discovery of an insecure-disorganized/disoriented attachment pattern. In T. B. Brazelton & M. W. Yogman (Eds.), *Affective development in infancy*, 95-124. Westport, CT: Ablex Publishing.
- Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood: A move to the level of representation. In I. Bretherton & E. Waters (eds) *Growing points in attachment theory and research, Monographs of the Society for Research in Child Development, 50*(1-2), 66-106.

- Mason, W., & Suri, S. (2012). Conducting behavioral research on amazon's mechanical turk. *Behavior research methods*, 44(1), 1-23.
- Maunder, R. G., Lancee, W. J., Nolan, R. P., Hunter, J. J. Tannenbaum, D. W. (2006). The relationship of attachment insecurity to subjective stress and autonomic function during standardized acute stress in healthy adults. *Psychosomatic Research*, 60(3), 283-290.
- Mikulincer, M., & Shaver, P. R. (2003). The attachment behavioral system in adulthood: Activation, psychodynamics, and interpersonal processes. In M. P. Zanna (Ed.), *Advances in experimental social psychology*, 35, 53-152. doi: 10.1016/S0065-2601(03)01002-5
- Mikulincer, M., & Shaver, P. R. (2007). Attachment in adulthood: Structure, dynamics, and change. New York: Guilford Press.
- Miller, E. D. (2003). Reconceptualizing the role of resiliency in coping and therapy. *Journal of Loss and Trauma*, 8, 239-246. doi: 10.1080/15325020390233057
- Mund, M., & Mitte, K. (2012). The costs of repression: A meta-analysis on the relation between repressive coping and somatic diseases. *Health Psychology*, 31(5), 640-649. <http://dx.doi.org/10.1037/a002625>
- Muthén, L. K., & Muthén, B. O. (1998-2011). *Mplus User's Guide. Sixth Edition*. Los Angeles, CA: Muthén & Muthén.
- Myers, L. B. (2010). The importance of the repressive coping style: findings from 30 years of research. *Anxiety, Stress, & Coping*, 23(1), 3-17.
- Myers, L. B. (2000). Identifying repressors: A methodological issue for health psychology. *Psychology and Health*, 15(2), 205-214. doi: 10.1080/08870

- Myers, L. B., Brewin, C. R. (1994). Recall of early experience and the repressive coping style. *Journal of Abnormal Psychology, 103*(2), 288-292. doi: 10.1037/0021-843X.103.2.288
- Myers, L. B., Davies, A., Evans, E., & Stygall, J. (2005). How successful are repressors at self-care behaviour? *Psychology and Health, 20*, 188-189.
- Myers, L. B., & Reynolds, R. (2000). How optimistic are repressors? The relationship between repressive coping, controllability, self-esteem and comparative optimism for health-related events. *Psychology and Health, 15*(5), 667-688.
- Nilsson, D., Holmqvist, R., & Jonson, M. (2011). Self-reported attachment style, trauma exposure and dissociative symptoms among adolescents. *Attachment & Human Development, 13*(6), 579-595. doi: 10.1080/14616734.2011.609004
- Ogawa J. R., Sroufe L. A., Weinfield N. S., Carlson E., & Egeland B. (1997). Development and the fragmented self: A longitudinal study of dissociative symptomatology in a non-clinical sample. *Developmental Psychopathology, 9*(4), 855-879.
- Paolacci, G, Chandler, J, & Ipeirotis, P. G. (2010). Running experiments on Amazon Mechanical Turk. *Judgment and Decision Making, 5*(5), 411–419. Retrieved from <http://hdl.handle.net/1765/31983>
- Peer, E., Vosgerau, J., & Acquisti, A. (2014). Reputation as a sufficient condition for data quality on Amazon Mechanical Turk. *Behavior Research Methods, 46*(4), 1023-1031. doi: 10.3758/s13428-013-0434-y
- Rand, D. G. (2012). The promise of Mechanical Turk: How online labor markets can help theorists run behavioral experiments. *Journal of Theoretical Biology, 299*, 172-

179. doi: 10.1016/j.jtbi.2011.03.004

Roth, S., & Cohen, L. J. (1986). Approach, avoidance, and coping with stress. *American Psychologist*, *41*(7), 813-819.

Rutter, M. (1985). Resilience in the face of adversity: Protective factors and resistance to psychiatric disorders. *The British Journal of Psychiatry*, *147*, 598-611. doi: 10.1192/bjp.147.6.598

Rutter, M. (1990). Psychosocial resilience and protective mechanisms. In J. Rolf, A. Masten, D. Cicchetti, K. H. Neuchterlain, & S. Weintraub (Eds.), *Risk and protective factors in the development of psychopathology* (pp. 181–214). New York: Cambridge University Press.

Rutter, M. (2007). Resilience, competence, and coping. *Child Abuse & Neglect*, *31*(3), 205-209. doi:10.1016/j.chiabu.2007.02.001

Rutter, M. (2012). Resilience as a dynamic concept. *Development and Psychopathology*, *24*(2), 335-344. doi: 10.1017/S0954579412000028

Rutter, M. (2013). Annual Research Review: Resilience - clinical implications. *Journal Of Child Psychology & Psychiatry*, *54*(4), 474-487. doi:10.1111/j.1469-7610.2012.02615.x

Schafer, J. L. (1999). Multiple imputation: A primer. *Statistical Methods in Medical Research*, *8*(1), 3-15.

Sherman, D. K., & Cohen, G. L. (2002). Accepting threatening information: Self-affirmation and the reduction of defensive biases. *Current Directions in Psychological Science*, *11*(4), 119–123. doi: 10.1111/1467-8721.00182

Siegmán, A. W. (1956). Cognitive, affective, and psychopathological correlates of the

- Taylor Manifest Anxiety Scale. *Journal of consulting psychology*, 20(2), 137.
- Simpson, J. A. (1990). Influence of attachment styles on romantic relationships. *Journal of Personality and Social Psychology*, 59(5), 971-980.
- Simpson, J. A., Rholes, W. S., & Phillips, D. (1996). Conflict in close relationships: An attachment perspective. *Journal of Personality and Social Psychology*, 71(5), 899-914. <http://dx.doi.org/10.1037/0022-3514.71.5.899>
- Skinner, E. A., & Zimmer-Gembeck, M. J. (2007). The Development of Coping. *Annual Review of Psychology*, 58, 119-144. doi: 10.1146/annurev.psych.58.110405.085705
- Spangler, G. and Grossmann, K. E. (1993), Biobehavioral organization in securely and insecurely attached Infants. *Child Development*, 64, 1439–1450. doi: 10.1111/j.1467-8624.1993.tb02962.x
- Staudinger, U. M., Marsiske, M., & Baltes, P. B. (1993). Resilience and levels of reserve capacity in later adulthood: Perspectives from life-span theory. *Development and Psychopathology*, 5(4), 541-566.
- Steiger, J. H. (2007). Understanding the limitations of global fit assessment in structural equation modeling. *Personality and Individual differences*, 42(5), 893-898.
- Taylor, J. A. (1953). A personality scale of manifest anxiety. *The Journal of Abnormal and Social Psychology*, 48(2), 285-290. doi: 10.1037/h0056264
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics*. Boston, MA: Pearson Education.
- Vetere, A., & Myers, L. B. (2002). Repressive coping style and adult romantic attachment style: Is there a relationship? *Personality and Individual Differences*,

35(5), 799-807. doi: 10.1016/S0191-8869(01)00083-6

Wagnild, G. (2009). A review of the Resilience Scale. *Journal of Nursing Measurement*,

17(2), 105-113. doi: 10.1891/1061-3749.17.2.105

Watt, N. F., David, J. P., Ladd, K. L., & Shamos, S. (1995). The life course of psychological resilience: A phenomenological perspective on deflecting life's slings and arrows. *Journal of Primary Prevention*, 15(3), 209-246.

Weinberger, D. A., & Davidson, M. N. (1994). Styles of Inhibiting Emotional Expression: Distinguishing Repressive Coping from Impression Management. *Journal of Personality*, 62(4), 587-613. doi:10.1111/1467-6494.ep9501250102

Weinberger, D. A., Schwartz, G. E., & Davidson, R. J. (1979). Low-anxious, high-anxious, and repressive coping Styles: Psychometric patterns and behavioral and physiological responses to stress. *Journal of Abnormal Psychology*, 88(4), 369-380.

Weinberger, D. A. (1990). The construct validity of the repressive coping style. In J. L. Singer (Ed.), *The John D. and Catherine T. MacArthur Foundation series on mental health and development. Repression and dissociation: Implications for personality theory, psychopathology, and health* (pp. 337-386). Chicago: University of Chicago Press.

Werner, E. E. (1995). Resilience in development. *Current Directions in Psychological Science*, 4(3), 81-8

APPENDIX A

INFORMATION SHEET

PROJECT TITLE: Resilience

INTRODUCTION: The purpose of this page is to give you information that may affect your decision whether to say YES or NO to participation in this research.

RESEARCHERS: Responsible Principal Investigator: James F. Paulson, Ph.D., Old Dominion University, College of Sciences, Department of Psychology.
Investigator: Jennika K. Jenkins, B.S., Old Dominion University, College of Sciences, Department of Psychology.

DESCRIPTION OF RESEARCH STUDY: The purpose of this study is to examine what factors may be related to resilient behaviors. If you choose to complete the survey, you will be asked for details related to your personal characteristics and preferences, your beliefs, and your experiences.

By clicking NEXT you agree to participate in the study you acknowledge that you understand what is involved, as described on this information screen. The questionnaire should take between 30-45 minutes to complete.

EXCLUSIONARY CRITERIA: You should be at least 18 - 29 years old to participate in the current study. If you are younger than 18 years of age or over the age of 29, please EXIT the survey now. You also should be a current resident of the United States of America. If you are not a resident of the United States, please EXIT the survey now.

RISKS OF PARTICIPATION: If you decide to participate in this study, it is very unlikely but still possible that your responses may be accidentally disclosed. The investigators have taken measures to reduce these risks by securing all confidential information on a password-protected database that is not accessible to any individuals outside of the research team.

NEW INFORMATION: If the researchers find new information during this study that would reasonably change your decision about participating, then that information will be provided to you.

CONFIDENTIALITY: The investigators will take reasonable steps to keep private information, such as answers to questionnaires, confidential. The results of this study may be used in reports, presentations, and publications; but the researchers will not identify you.

VOLUNTARY SURVEY AND WITHDRAWAL PRIVILEGE: Participating in this survey is voluntary. If you decide that you want to volunteer to complete this survey, please click NEXT.

Even after starting, you may end your participation at any time. If you wish not to participate while in the middle of the study please click EXIT SURVEY and your responses will not be recorded. If at any point you need to discuss this project, you can contact any of the investigators:

RPI: Dr. James F. Paulson, jpaulson@odu.edu

Investigator: Jennika K. Jenkins, jjenk040@odu.edu

APPENDIX B

EXPERIENCES IN CLOSE RELATIONSHIPS-RELATIONSHIP STRUCTURES

QUESTIONNAIRE

This questionnaire is designed to assess the way in which you mentally represent important people in your life. You'll be asked to answer questions about your parents, your romantic partners, and your friends. Please indicate the extent to which you agree or disagree with each statement by circling a number for each item.

Please answer the following questions about your mother or a mother-like figure

1. It helps to turn to this person in times of need.
strongly disagree 1 2 3 4 5 6 7 strongly agree

2. I usually discuss my problems and concerns with this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree

3. I talk things over with this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree

4. I find it easy to depend on this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree

5. I don't feel comfortable opening up to this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree

6. I prefer not to show this person how I feel deep down.
strongly disagree 1 2 3 4 5 6 7 strongly agree

7. I often worry that this person doesn't really care for me.
strongly disagree 1 2 3 4 5 6 7 strongly agree

8. I'm afraid that this person may abandon me.

strongly disagree 1 2 3 4 5 6 7 strongly agree

9. I worry that this person won't care about me as much as I care about him or her.
strongly disagree 1 2 3 4 5 6 7 strongly agree

Please answer the following questions about your father or a father-like figure

1. It helps to turn to this person in times of need.
strongly disagree 1 2 3 4 5 6 7 strongly agree

2. I usually discuss my problems and concerns with this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree

3. I talk things over with this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree

4. I find it easy to depend on this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree

5. I don't feel comfortable opening up to this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree

6. I prefer not to show this person how I feel deep down.
strongly disagree 1 2 3 4 5 6 7 strongly agree

7. I often worry that this person doesn't really care for me.
strongly disagree 1 2 3 4 5 6 7 strongly agree

8. I'm afraid that this person may abandon me.
strongly disagree 1 2 3 4 5 6 7 strongly agree

9. I worry that this person won't care about me as much as I care about him or her.
strongly disagree 1 2 3 4 5 6 7 strongly agree

 Please answer the following questions about your dating or marital partner.

Note: If you are not currently in a dating or marital relationship with someone, answer these questions with respect to a former partner or a relationship that you would like to have with someone.

1. It helps to turn to this person in times of need.
 strongly disagree 1 2 3 4 5 6 7 strongly agree

2. I usually discuss my problems and concerns with this person.
 strongly disagree 1 2 3 4 5 6 7 strongly agree

3. I talk things over with this person.
 strongly disagree 1 2 3 4 5 6 7 strongly agree

4. I find it easy to depend on this person.
 strongly disagree 1 2 3 4 5 6 7 strongly agree

5. I don't feel comfortable opening up to this person.
 strongly disagree 1 2 3 4 5 6 7 strongly agree

6. I prefer not to show this person how I feel deep down.
 strongly disagree 1 2 3 4 5 6 7 strongly agree

7. I often worry that this person doesn't really care for me.
 strongly disagree 1 2 3 4 5 6 7 strongly agree

8. I'm afraid that this person may abandon me.
 strongly disagree 1 2 3 4 5 6 7 strongly agree

9. I worry that this person won't care about me as much as I care about him or her.
 strongly disagree 1 2 3 4 5 6 7 strongly agree

Please answer the following questions about your best friend

1. It helps to turn to this person in times of need.
strongly disagree 1 2 3 4 5 6 7 strongly agree

2. I usually discuss my problems and concerns with this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree

3. I talk things over with this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree

4. I find it easy to depend on this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree

5. I don't feel comfortable opening up to this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree

6. I prefer not to show this person how I feel deep down.
strongly disagree 1 2 3 4 5 6 7 strongly agree

7. I often worry that this person doesn't really care for me.
strongly disagree 1 2 3 4 5 6 7 strongly agree

8. I'm afraid that this person may abandon me.
strongly disagree 1 2 3 4 5 6 7 strongly agree

9. I worry that this person won't care about me as much as I care about him or her.
strongly disagree 1 2 3 4 5 6 7 strongly agree

APPENDIX C

MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is *true* or *false* as it pertains to you personally.

1. Before voting I thoroughly investigate the qualifications of all the candidates. (T)
2. I never hesitate to go out of my way to help someone in trouble. (T)
3. It is sometimes hard for me to go on with my work if I am not encouraged. (F)
4. I have never intensely disliked anyone. (T)
5. On occasion I have had doubts about my ability to succeed in life. (F)
6. I sometimes feel resentful when I don't get my way. (F)
7. I am always careful about my manner of dress. (T)
8. My table manners at home are as good as when I eat out in a restaurant. (T)
9. If I could get into a movie without paying and be sure I was not seen I would probably do it. (F)
10. On a few occasions, I have given up doing something because I thought too little of my ability. (F)
11. I like to gossip at times. (F)
12. There have been times when I felt like rebelling against people in authority even though I knew they were right. (F)
13. No matter who I'm talking to, I'm always a good listener. (T)
14. I can remember "playing sick" to get out of something. (F)
15. There have been occasions when I took advantage of someone. (F)
16. I'm always willing to admit it when I make a mistake. (T)
17. I always try to practice what I preach. (T)
18. I don't find it particularly difficult to get along with loud mouthed, obnoxious people. (T)

19. I sometimes try to get even rather than forgive and forget. (F)
20. When I don't know something I don't at all mind admitting it. (T)
21. I am always courteous, even to people who are disagreeable. (T)
22. At times I have really insisted on having things my own way. (F)
23. There have been occasions when I felt like smashing things. (F)
24. I would never think of letting someone else be punished for my wrongdoings. (T)
25. I never resent being asked to return a favor. (T)
26. I have never been irked when people expressed ideas very different from my own. (T)
27. I never make a long trip without checking the safety of my car. (T)
28. There have been times when I was quite jealous of the good fortune of others. (F)
29. I have almost never felt the urge to tell someone off. (T)
30. I am sometimes irritated by people who ask favors of me. (F)
31. I have never felt that I was punished without cause. (T)
32. I sometimes think when people have a misfortune they only got what they deserved. (F)
33. I have never deliberately said something that hurt someone's feelings. (T)

Note. The socially desirable response for each item is shown in parentheses; T = true; F = false.

APPENDIX D

TAYLOR MANIFEST ANXIETY SCALE

Instructions: The statements below inquire about your behavior and emotions. Consider each statement carefully. Then indicate whether the statements are generally true or false for you.

- 5. I am often sick to my stomach. (T)
- 7. I am about as nervous as other people. (F)
- 13. I work under a great deal of strain. (T)
- 24. I blush as often as others. (F)
- 25. I have diarrhea ("the runs") once a month or more. (T)
- 26. I worry quite a bit over possible troubles. (T)
- 38. When embarrassed I often break out in a sweat which is very annoying. (T)
- 41. I do not often notice my heart pounding and I am seldom short of breath. (F)
- 44. Often my bowels don't move for several days at a time. (T)
- 51. At times I lose sleep over worry. (T)
- 54. My sleep is restless and disturbed. (T)
- 56. I often dream about things I don't like to tell other people. (T)
- 67. My feelings are hurt easier than most people. (T)
- 77. I often find myself worrying about something. (T)
- 82. I wish I could be as happy as others. (T)
- 87. I feel anxious, about something or someone almost all of the time. (T)
- 100. At times I am so restless that I cannot sit in a chair for very long. (T)

107. I have often felt that I faced so many difficulties I could not overcome them. (T)
112. At times I have been worried beyond reason that something that really did not matter. (T)
117. I do not have as many fears as my friend. (F)
145. I am more self-conscious than most people. (T)
152. I am the kind of person who takes things hard (T)
153. I am a very nervous person. (T)
163. Life is often a strain for me. (T)
168. I am not at all confident of myself. (T)
183. At times I feel that I am going to crack up. (T)
187. I don't like to face a difficulty or make an important decision. (T)
190. I am very confident of myself. (F)

APPENDIX E
DEMOGRAPHIC QUESTIONNAIRE

Instructions. Please indicate your response by clicking on your answer.

1. Do you currently live in the United States?

- A. Yes B. No.

2. What is your gender?

- A. Male B. Female

3. How would you describe your race?

- A. Caucasian / White
B. African American / Black
C. Hispanic
D. Asian
E. Alaskan Native/Native American
F. Multi-racial
G. Other

4. What is your age?

Type in appropriate response.

5. What is your highest level of education?

- A. High School
B. Some college
C. Associates Degree
D. Bachelor's Degree
E. Graduate school

6. What is your sexual orientation?

- A. Heterosexual
B. Gay / Lesbian
C. Bisexual
D. Other
Type in appropriate response.

7. What is your relationship status?

- A. Single
B. Married / Civil Union
C. Living with Partner
D. Separated
E. Divorced

F. Widowed

8. Are your parents currently living?

A. Yes

B. No

9. What is your zip code?

Type in appropriate response.

VITA

Jennika K. Jenkins

Old Dominion University
Department of Psychology
Norfolk, VA 23529

Education

- M.S.** Experimental Psychology (*expected August 2016*)
Department of Psychology
Old Dominion University
- B.S.** Psychology (awarded May 2011)
Department of Psychology
Georgia College and State University

Background

Jennika K. Jenkins is a third year graduate student at Old Dominion University. She is pursuing her Master's degree in Experimental Psychology and, in the Spring of 2017, her Ph.D. in Applied Psychological Sciences. She is currently a research assistant in the Early Family Laboratory of Dr. James Paulson. Jennika's research interests include the study of early family dynamics, with emphasis on developmental psychopathology and emotional coping.

Selected Presentations

Paulson, J. F., **Jenkins, J. K.**, Ellis, K. T., Moore, N., & Dilks, C. (2015, May). *If Dad Ain't Happy...: Maternal and Paternal Depression's Effects on Early Coparenting*. Poster presented at the 27th Annual Convention of the Association for Psychological Science, New York City, New York.

Jenkins, J. K., Hollis, B. F., Murphy, E., DeWitt, A., & Haislip, B. (2015, May). *Parental Support and Current Romantic Relationship Satisfaction Moderated by Alcohol Consumption in Emerging Adults*. Poster presented at the 27th Annual Convention of the Association for Psychological Science, New York City, New York.