ATTACHMENT ANXIETY AND AVOIDANCE AND THE BIG FIVE
PERSONALITY TRAITS: THEIR RELATIONSHIP TO SELF-ESTEEM

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ABSTRACT

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Self-esteem broadly impacts each individual’s life and often underlies common issues brought into the psychotherapeutic setting (Baumeister, Campbell, Krueger, & Vohs, 2003). Self-esteem is an important construct with regard to the general wellbeing of an individual and it has been found to be associated with things like level of success and mental health (Baumeister et al., 2003; Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995). Some broadband predictors of self-esteem are personality and attachment cognitions (Robins, Tracy, & Trzesniewski, 2001; Wu, 2009). Although many studies have considered them separately, no study to date has combined both attachment and Big Five personality with regard to their collective predictability of self-esteem. The present study fills in this research gap. The study’s findings with regard to these three concepts are particularly relevant to the therapeutic setting, as its main question is whether personality (a more stable construct) or attachment (a more malleable construct) more strongly relates to self-esteem.

Most of this study’s hypotheses were supported and fell in line with past research. As expected, attachment anxiety and avoidance were both found to be positively correlated with neuroticism, and as predicted, this relationship was even stronger for anxiety. Attachment avoidance was negatively correlated with extraversion,
agreeableness, and conscientiousness. Attachment anxiety and avoidance were both negatively correlated with self-esteem, the negative relationship found for avoidance and self-esteem did not replicate results from past research. With regard to personality and self-esteem; extraversion, agreeableness and conscientiousness were positively correlated, but neuroticism was negatively correlated. Through the use of multiple hierarchical regressions it was found that overall personality is a greater predictor of self-esteem than is attachment. The leading predictors of self-esteem, from the eight predictors used in this study, were first neuroticism, followed by attachment anxiety, conscientiousness, and then extraversion. Knowing more about these contributors to self-esteem may help therapists to gather relevant information about their clients and may help them in understanding what could be helpful to focus on in therapy, especially if clients are dealing with self-esteem issues.
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INTRODUCTION

Clients receiving psychotherapeutic treatment often present with low self-esteem. Many disorders and symptoms within the DSM-IV-R relate to an underlying disapproval of the self. Therefore, many approaches to therapy involve a focus on the self; for example humanistic therapy including self-actualization and cognitive-behavioral therapy including distorted cognitions, which often involve self-esteem. Treatment plans can be tailored to the specific needs the client presents with, when proper information is obtained from the client. Generally this should be done in a context of the client’s broader traits and cognitions. Personality and attachment both represent broad predictors of self-esteem (Robins, Trzesniewski, & Donnellan, 2012; Wu, 2009). The purpose of this research is to expand the depth of knowledge with regard to these broadband predictors of self-esteem in order to provide mental health practitioners with additional knowledge regarding how they might provide the best-fit treatment options.

As self-esteem is related to the general global wellbeing of an individual, it is of great importance to a mental health provider (Rosenberg, 2005). In knowing whether attachment or personality better predicts self-esteem, mental health providers may know which information is important to gather from their clients and which techniques and approaches can be used for the best prognosis. For example, attachment is thought to be more changeable than personality (Costa & McCrae, 1988; Fraley, Vicary, Brumaugh, & Roisman, 2011). The results of this research can offer mental health providers a greater depth of knowledge for working with clients presenting with low self-esteem.
LITERATURE REVIEW

Self-esteem

There are many “self” words used within the study of psychology. The study of the self reaches as far back as psychology’s beginnings. The concept of self-esteem has evolved into a well-understood and well-defined psychological construct, including a thorough understanding of its associations and elements. Self-esteem is generally defined as a person’s subjective appraisal of their worth as a human being (Robins et al., 2012). As Rosenberg et al. (1995) explain it, much like an attitude an individual holds toward any general or specific thing in the world, self-esteem can be seen as an attitude toward the self. Due to the subjective nature of self-esteem, this construct is found to be very reliable and valid to measure. With the construct of self being rooted deeply within the study of psychology, self-esteem remains an important area of psychological research (Robins et al., 2012).

Research focuses on two types of self-esteem: global and domain-specific (Robins et al., 2012; Rosenberg et al. 1995). Global self-esteem refers to an individual’s overall evaluation of self-worth, whereas domain-specific self-esteem involves evaluations of self-worth in a particular facet of the self. Rosenberg et al. (1995) conducted a study investigating the degree of overlap between these two constructs. The findings suggested that an individual’s global self-esteem is not equal to the sum of all the domain-specific parts. While domain-specific self-esteem is found to be associated with specific behaviors, like whether or not a child chooses to try out for the soccer team, global self-
Esteem is related to overall psychological wellbeing. While global self-esteem plays a role in the overall level of wellbeing, domain-specific self-esteem does not appear to relate. And while domain-specific self-esteem is related to particular behaviors, global self-esteem is not. The current study will examine global self-esteem, given its centrality to psychological wellbeing and its applicability to the clinical and therapeutic realms of psychology.

Differing levels of self-esteem are found to be associated with certain benefits and risks (Robins et al., 2012). High self-esteem has been found to be associated with having more success within school, work, and interpersonal relationships, and can be a mechanism for goal attainment. Self-esteem correlates with an individual’s degree of happiness. Individuals with higher self-esteem tend to perform better than those with lower self-esteem and in group performance situations these individuals tend to have a stronger sense of in-group versus out-group judgment. Lower levels of self-esteem have been found to put individuals at risk for mental health problems and may be related to acting-out behaviors, such as antisocial behaviors and substance use issues (Robins et al., 2012), although those findings have been contested (Baumeister et al., 2003). With regard to disorders, low self-esteem is found to be particularly related to disordered eating.

Research suggests that an average score on self-esteem is often high, meaning if the scale runs from 1-7, many participants fall around the 6 and 7 scores (Schmitt & Allik, 2005).

Self-esteem is related to multiple facets of an individual’s self-perception and behavior, but the numerous mechanisms and causalities are complex and difficult to
understand especially given the struggle in studying self-esteem in a true experiment (Baumeister et al., 2003). For example, self-esteem is correlated with high-quality academic performance and job performance and not so much the reverse, so it is thought that self-esteem is not the cause of these outcomes. Higher self-esteem can lead to a subjective sense of being liked but is not found to be associated with the actual experience of being liked by others (Baumeister et al., 2003). In a recent book written by Baumeister (2012), an important critic and researcher in the study of self-esteem, he states that self-esteem is a piece of our universal drive toward being in relationships. Stating that self-esteem is the product of our estimated likelihood of attaining and maintaining these relationships.

Self-esteem tends to change over the course of the lifespan (Robins et al., 2012). Self-esteem is typically high in childhood but tends to take a turn downward during adolescence. As adulthood nears, however, self-esteem increases with an individual’s increased understanding of skills and abilities the individual possesses (Twenge, 2001). Self-esteem, then, tends to rise until it begins dropping during old age. Self-esteem’s fluctuations appear to be related to the tasks associated with the lifespan stages and the importance of particular social interactions.

Self-esteem is an important construct because it is intricately related to a person’s wellbeing, an area in which we are particularly interested within the applied clinical setting of psychology. Based on past research, it is found that the concept of self-esteem is the basis of much of a person’s life and is an important construct for therapists to be
informed of. Self-esteem is both personal and interpersonal, being related to appraisal from within and also based on social interactions and feedback from others.

**Adult attachment**

Attachment theory’s importance in the psychological literature has expanded vastly over the last 25 years. It provides a framework for understanding how people relate to others and what drives their experiences in close relationships. Attachment theory has its roots in the study of infants and their bond to their mothers or their significant caregiver (Shaver & Mikulincer, 2012). John Bowlby and Mary Ainsworth founded the theory in the late 1950s and early 1960s. The theory of infant attachment states that infants are genetically predetermined and biologically inclined to create a bond with their caregiver in order to get their needs met. The attachment bond created between the primary caregiver and the infant then shapes the way the infant views the world, themselves and others. Mary Ainsworth, through studies using the “strange situation,” found that infants fell into four categories of attachment orientations based on their behaviors: secure, avoidant, anxious, and disorganized (Shaver & Mikulincer, 2012).

The application of attachment theory grew rapidly after its creation and moved from the area of child development into the realm of social psychology in the late 1980s (Shaver & Mikulincer, 2012). This realm is where the theory transformed, broadening to include an understanding of adults in significant relationships and their orientations toward these bonds. This expansion came about as Shaver and Mikulincer, while working
on studying loneliness in adulthood, observed patterns that appeared quite similar to that of infant attachment styles (Shaver and Mikulincer, 2012).

In 1987, Hazan and Shaver completed a study by having adult participants self-report which attachment orientation they felt they fit into, using three of the four categories established by Ainsworth (Shaver & Mikulincer, 2012). The category descriptions focused on the level of ease the participant experienced in becoming close to others, and the ease with which others become close to them. The “secure” group was described as experiencing ease with both becoming close to others and others becoming close to them. The “avoidant” group was described as experiencing some distress in becoming close to others, while viewing others as tending to seek a higher level of intimacy with them than they feel comfortable with. The “anxious” group was described as the opposite, having more ease in becoming close to others and experiencing others as not wanting to be as close, as they seem to scare them away (Shaver & Mikulincer, 2012).

Following Hazan and Shaver’s work, Bartholomew in the late 1990s presented a still categorical yet more dimensional way of viewing attachment styles (Shaver & Mikulincer, 2012). This approach views attachment through models of self and others, which underlie the classifications above (Bartholomew, 1997). Bartholomew divided attachment into four styles based on the two dimensions (self and other) including: secure, preoccupied, dismissing, and fearful. Secure individuals hold a positive model of self and others, preoccupied individuals hold a positive model of others but a negative
model of self, dismissing individuals hold a positive model of self but a negative model of others, while fearful individuals hold negative models of both self and others. Secure attachment therefore represents low scores on both avoidance and attachment, dismissive as a high score on avoidance, preoccupied as a high score on anxiety, and fearful as a high score on both avoidance and anxiety (Bartholomew, 1997).

The paradigm shifted toward viewing attachment as two dimensional as opposed to categorical in the early 2000s (Shaver & Mikulincer, 2012). Individuals high on either anxiety or avoidance both experience insecurity and distress within close relationships, but their reactions to this uncertainty differ considerably. Someone high on avoidance would be described as experiencing apprehension toward becoming close with others, often resulting in emotional reserve and an increased need for feelings of independence. Someone high on anxiety would be described as being overwhelmingly engrossed with the need for closeness and intimacy and ruminating about their own worth to their significant partner. This view of adult attachment is what is currently most valuable and applicable and will be the way the current study defines the construct (Shaver & Mikulincer, 2012).

Adult attachment is found to be associated with both externalized constructs, such as social functioning, and with internalizing constructs; such as coping mechanisms, reactions to stress, psychological wellbeing and behaviors related to health and mortality (Ravitz, Maunder, Hunter, Sthankiya, & Lancee, 2010). With regard to relational constructs, attachment is predictive of how one will react in a conflict situation. Avoidant
individuals will avoid conflict when possible and therefore not experience corrective situations within conflicts with romantic partners; in contrast, high anxiety scores predict acquiescence in conflict situations, wherein these individuals put their own needs to the side with romantic partners (Shi, 2003). Secure attachment, or those scoring low on both avoidance and anxiety, predicts many positive outcomes including high quality relationships (Roisman, Padron, Sroufe, & Egeland, 2002).

Additionally, different attachment styles have been found to be associated with different mental disorders (Cassidy & Shaver, 1999). With depression, there is a relatively even distribution of individuals within the preoccupied (or anxious attachment style) and dismissing (or avoidant attachment style) categories. People with anxiety disorders tend to have high scores on anxiety, while those with eating disorders often score high on the avoidance dimension. With regard to personality disorders, it is found that most individuals with borderline personality disorder tend to be high on anxiety and those with antisocial personality disorder tend to be high on avoidance (Cassidy & Shaver, 1999). Avoidant scores are not found to be related to wellbeing or global distress but these individuals are often found to experience pervasive emotional and behavioral problems such as: patterns of depression that include things like self-criticism and somatic complaints, and schizoid or avoidant personality disorders (Shaver & Mikulincer, 2012).

With regard to the stability of attachment, Fraley, Vicary, Brumbaugh, & Roisman (2011) found that a prototype model, when looking at attachment over time, is
the most appropriate. This prototype model represents the concept that attachment tends to remain static across time and situations and when there is change in attachment it is typically for a short period of time. This change may occur with regard to a particular relationship, but will bounce back closer to the original tendency for that individual.

Although attachment may remain fairly stable over time, the idea of earned secure attachment has been found to exist (Roisman et al., 2002). Earned secure attachment is defined as an individual that can describe their childhood in a consistent way aside from the negative events involved. An insecure individual (who has not earned a secure attachment orientation) describes their childhood in bits and pieces or by brushing over the negative experiences. Earned secure attachment can occur due to life events or through therapeutic techniques (Roisman et al., 2002). So there is evidence that attachment while generally stable is able to change.

However, conclusions about stability of attachment are probably premature. Fraley states on his website that there is little research that has looked at the continuity of attachment from early childhood through adulthood, but Thompson (2000) assessed the research with regard to the continuity of attachment and synthesized that internal working models are much more mature at preschool age than they are at infancy and it is said that we can get better predictability of future attachment from these later ages rather than in infancy. The way attachment is measured is different at different ages and therefore the study of its stability and change is a complicated one.
Big Five Personality

Personality has been an important topic to the study of psychology since its earliest beginnings. The conceptualization of personality has shifted and expanded over the many years it’s been studied. Cattell, an early personality researcher, found 4,500 words in the English language encompassing personality (John, Nauman, & Soto, 2008). In the late 1940s and early 1950s, personality researchers found, through factor analysis, five overall factors within these personality terms identified by Cattell. These five factors were very similar to those used to this day. The five factors currently consist of: neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness.

Neuroticism is the aspect of personality that encompasses the degree of emotional instability versus stability (Costa & McCrae, 1992). An individual scoring high on neuroticism experiences a particular proneness to negative affect, while individuals scoring low on neuroticism tend to be more mellow and calm in nature. Neurotic individuals tend to experience feelings such as: “fear, sadness, embarrassment, anger, guilt, and disgust” (pp. 14). This group of individuals also tends to lack the ability to cope with these emotions. This factor is found to be most related to the presence of psychopathology (Costa & McCrae, 1992; Kotov, Gamez, Schmidt, & Watson, 2010).

Extraversion is the factor that encompasses more of the social aspects of personality, measuring the range between being extremely sociable to a more reserved sociability (Costa & McCrae, 1992). Individuals scoring high on the measure of extraversion tend to be more talkative and cheerful in disposition. Individuals scoring
low, often referred to as introverts, do not embody the opposite of extraversion; they simply lack it. These individuals tend to prefer their alone time and do not get as much charge from social interactions (Costa & McCrae, 1992).

Openness to experience refers to the degree to which an individual is welcoming to a new experience or way of thinking (Costa & McCrae, 1992). An individual scoring low on openness to experience tends to be more comforted by familiar and habitual stimuli. Though inherently openness to experience may appear to be healthier, both ends of the spectrum provide for beneficial ways of viewing and experiencing the world. Those scoring high on openness to experience tend to be more creative, having a more expansive imagination and appreciation for aesthetics. Those scoring low on openness to experience have a tendency to be more traditional, which can serve as an advantage to the individual in that they are more versed in a traditional way of life, which may provide them with some comfort and stability. The action of seeking out and understanding novelty is a behavior that is related to being more open (Costa & McCrae, 1992).

Agreeableness is an interpersonal factor of personality (much like extraversion) but with more of an emphasis on altruistic behavior (Costa & McCrae, 1992). Agreeableness is the aspect of personality that measures an individual’s tendency to sympathize and tend to have a desire to be helpful to others, involving compliance and cooperation with others. Individuals scoring low on agreeableness tend to be more self-centered and cynical with regard to others. Although being more agreeable appears to be the healthier end of the spectrum, all levels can offer benefits to the individual, as it is
adaptive to be able to think of one’s self and of others in order function within the world (Costa & McCrae, 1992).

The fifth and final domain is conscientiousness, which is the personality domain that involves planning and organization (Costa & McCrae, 1992). An individual scoring high on conscientiousness is often described as having a lot of willpower and being someone that completes tasks. These individuals are often achievement-oriented, while those low in conscientiousness may pay little mind to the active process of planning and finishing the tasks they begin. An individual scoring low on conscientiousness may approach the world in a more free-flowing sort of way in which goals may be less clear and therefore more difficult to attain (Costa & McCrae, 1992).

Ozer and Benet-Martinez (2006) report that with regard to happiness the two most important domains of personality are those by which can be seen as more biologically (or temperamentally) based, neuroticism and extraversion. While neuroticism is negatively correlated with happiness, extraversion is positively correlated and self-esteem moderates this relationship. Findings suggest gratitude is associated with agreeableness and extraversion. Forgiveness is associated with agreeableness and openness to experience. Humor is associated with agreeableness and low neuroticism. With regard to physical health, the combination of extraversion, conscientiousness and low neuroticism predicts a longer lifespan. The concept of identity achievement is linked to low neuroticism, conscientiousness, and extraversion. An individual that scores low on openness to
experience often tends to settle on who they believe they are without any actual exploration (Ozer & Benet-Martinez, 2006).

Kotov et al. (2010) studied the relationship between personality and psychopathology (substance use disorder, anxiety, and depression) finding that personality is highly connected to psychopathology. The profile of an individual experiencing psychopathology is someone scoring high on neuroticism and low on conscientiousness, agreeableness, and extraversion. Though there are differences across disorders, there is often no correlation between psychopathology and the domain of openness to experience. More specifically, depressive and anxiety disorders are strongly related to neuroticism. Depression is also negatively correlated with extraversion. Substance use disorder is often characterized as an individual that scores high on openness to experience and low on conscientiousness (Ozer & Benet-Martinez, 2006). If we look at the directionality of the connection between personality and depression, we see it fall two ways: those with neuroticism are more likely to have depression, but also an individual is likely to score higher on neuroticism when experiencing depression (Klein, Kotov, & Bufferd, 2012). Often times the personality profile associated with personality disorders is simply an extreme version of certain personality domains. Widiger, Livesley, and Clark (2009) suggest that any extreme score (low and high) on a particular facet or domain of personality may be indicative of a maladaptive personality trait and could represent a possible disordered personality.
Personality has an impact on and is impacted by many things within the intrapersonal self (Ozer & Benet-Martinez, 2006). Personality also influences our relationships and behaviors in the world. Empathy is an important attribute assisting in positive communication and creating bonds. It is associated with the combined personality domains of extraversion and agreeableness. When these two traits are low and include high neuroticism, often relationships suffer (Ozer & Benet-Martinez, 2006).

Some research suggests that individuals with certain personality profiles are more likely to hold certain jobs and values (Ozer & Benet-Martinez, 2006). With regard to work, extraversion is associated with a social job, conscientiousness is associated with a conventional job, agreeableness is associated with teamwork and job attainment, neuroticism is associated with financial success. Politically conservative individuals tend to have low openness to experience, low agreeableness, and low conscientiousness. Prosocial behaviors such as volunteerism is associated with agreeableness, but even more so with extraversion. Criminal behavior is associated with low conscientiousness and low neuroticism (Ozer & Benet-Martinez, 2006).

Personality includes more stable traits that are less malleable than those related to attachment cognitions. The stability of the personality domains has been supported in the research, with levels of correlations reaching over $r = .60$ and often surrounding $r = .80$ ranging over 3 and 6 years (Costa & McCrae, 1988). So, it is thought that all five factors remain rather stable, while evolving only slightly over time (Costa & McCrae, 1988).
In summary, research has been done focusing on the predictive nature of the five-factor model. Specifically, mental health is intricately related to personality and therefore personality is useful in prediction and understanding of these issues. Kotov et al. (2010) found that particular pathologies are associated with distinct sets of personality traits. Along with these many personality influenced pathologies, also many general life outcome constructs tend to be predicted by the five-factor model, including those many factors reported by Ozer and Benet-Martinez (2006). These associations found within the research illuminate the usefulness of personality profiling and its applicability within research and clinical settings.

**Attachment and Self-esteem**

Self-esteem is often viewed as an intrapersonal experience in which an individual places value on himself or herself. But, the entirety of self-esteem cannot be captured without addressing the interpersonal aspect it also holds (Murray, Holmes, & Griffin, 2000; Wu, 2009). Self-esteem is distinctly related to the concept of attachment, as attachment is a mechanism by which we as people interact with one another and therefore receive feedback helping us to make self-judgments (Murray et. al., 2000; Wu, 2009). The sociometer theory states that individuals gain an understanding of their value (or self-esteem) by basing their self-evaluation on the interactions and feedback given by others and research has supported this (Srivastava & Beer, 2005).

Individuals scoring low on both attachment anxiety and attachment avoidance, representing a secure attachment, tend to have the highest level of self-esteem (Wu,
Individuals who score low on both dimensions of attachment (anxiety and avoidance) tend to process feedback from others in appropriate ways. This facilitates the process by which individuals view themselves as loveable. This then assists in the process of seeking out more positive feedback and provides for positive self-esteem that is associated with secure attachment. These individuals have positive models of self and others and often find themselves in fulfilling relationships (Wu, 2009).

In contrast, insecure individuals scoring high on either avoidance or anxiety tend to experience fewer acceptances by others, fueling their models of self and others (Wu, 2009). Anxious attachment, specifically, is related to low levels of self-esteem. Anxiously attached individuals tend to have the lowest levels of self-esteem and more unstable relationships, likely due to the fact that the relationships they are involved in are also unstable (Foster, Kernis, & Goldman, 2007). The individuals that experience the lowest self-esteem are those who score highest on attachment anxiety. These individuals are fearful of rejection and tend to experience self-defeating schemas within the context of relationships, which then in turn affects the individual’s self-worth (Wu, 2009).

Interestingly, avoidance does not correlate with self-esteem. This may be due to the fact that high avoidance is often reflective of an individual’s deflective propensity in emotional/relational situations. High scores on avoidance suggest that an individual may hold a low level of self-esteem implicitly, but an averagely high self-esteem explicitly (Fraley et al., 2011). Implicit self-esteem can be seen as the “automatic” and more unconscious value one holds of themselves whereas explicit is a much more conscious
and outward view or value of self (Zeigler-Hill & Jordan, 2010). Explicit can be high, while implicit may be low and this combination would represent an underlying insecurity. The high explicit score may be due, in part, to the self protective mechanisms built into an individual with this high avoidance score (Fraley et al., 2011).

**Personality and Self-esteem**

Both the constructs of personality and self-esteem have been vastly studied and shown to be related to multiple variables. Some of personality’s correlates include the aspects within the interpersonal self, intrapersonal relationships, and behavioral outcomes for an individual (Ozer & Benet-Martinez, 2006), while some of self-esteem’s correlates include work and job performance, relationship quality, happiness, and psychopathology (Baumeister, 2003). It is clear then, based on the common correlates, personality and self-esteem appear to be related.

Multiple studies have assessed the relationship between personality and self-esteem. One study shows that the five domains within the scope of personality jointly account for 34% of the variance in self-esteem (Robins et al., 2001). Robins et al. established a general personality profile that is found to be most related to high self-esteem, which is comprised of low neuroticism, high extraversion, high conscientiousness, moderate agreeableness and high openness to experience. The strongest correlations between personality and self-esteem were that of extraversion \( r = .38 \) and neuroticism \( r = -.50 \). Watson found similar results in 2002.
It was also noticed by Robins et al. (2001) that individuals scoring high in self-esteem often possessed socially desirable traits, which may in fact account for some of the association between personality and self-esteem. High self-esteem is found to be related to a tendency to present the self in a more desirable way, which helps to explain this connection between personality, self-esteem and social desirability (Baumeister, 1989). Baumeister (1989) also found that individuals that tended to score low on self-esteem appeared to want to present themselves in a more self-protective manner. Therefore self-esteem and personality measures may include some error due to this self-presentational model that has been highlighted in research in the past. This study will include a measure of social desirability in order to statistically control for this.
STATEMENT OF PURPOSE

Personality and adult attachment have been found to be rather stable over time, though it is thought that attachment is more malleable than personality (John et al., 2000; Fraley et al., 2011). Although there is some overlap, attachment and the Big Five personality traits are statistically separate constructs (Noftle & Shaver, 2006). Noftle and Shaver completed a study in 2006 looking at the relationship between the dimensions of attachment and the Big Five personality traits, first completing a meta-analysis and also completing a study of their own. This study found only one dimension of personality to have a strong relationship, anxious attachment was strongly associated with the personality trait of neuroticism \( r = .56 \); followed by the dimension of avoidant attachment being weakly negatively correlated with agreeableness \( r = -.22 \) and extraversion \( r = -.26 \). These relationships make sense given the definitions of what it means to be high on attachment anxiety and avoidance. Although some relationships were found between the dimensions of attachment and of personality, for the most part the relationships were small (Noftle & Shaver, 2006).

Although the constructs of both attachment and personality have warranted independent lines of research on their association with self-esteem, the research has only focused on these separately. As noted above, these constructs are found to be distinctly different from one another. Due to the shared impact on both interpersonal and intrapersonal aspects of the self, it is important to combine them in order to study how they impact self-esteem. As previously mentioned, personality accounts for 34% of the
variance in self-esteem, leaving 66% unexplained variance up to other factors of which a portion might be attributed to attachment (Robins et al., 2001).

**Hypotheses and Research Questions**

Our first set of hypotheses focus on findings we expect to replicate based on past research.

1. **Attachment and Personality:**
   a. This study hypothesizes that both attachment anxiety and attachment avoidance will be positively correlated with the Big Five factor of neuroticism. In particular, anxiety is expected to have a stronger positive correlation with neuroticism.
   b. This study hypothesizes that attachment avoidance will be negatively correlated with extraversion, agreeableness, and conscientiousness.

2. **Attachment and self-esteem:**
   a. This study hypothesizes that attachment avoidance will not be significantly correlated with self-esteem and attachment anxiety will be negatively correlated with self-esteem.

3. **Personality and self-esteem:**
   a. This study hypothesizes that the personality domains of extraversion, agreeableness, and conscientiousness will be positively correlated with self-esteem.
b. This study hypothesizes that the personality domain of neuroticism will be negatively correlated with self-esteem.

Our main question, which gets at the heart of this study, is expected to add to the research in a new way. It will broaden the understanding of how attachment and personality relate to self-esteem.

4. Of personality and attachment, which set of constructs better explains the variance in self-esteem?
METHODS

Participants

Participants ($N = 301$; 84% female) included individuals 18 and over, with 58.5% of participants falling between the ages of 18 to 29, 27.6% between the ages of 30 to 49, 10.6% between the ages of 50 to 64, and 2.7% at 65 years or older. Degree of education varied among the participants; the majority of the group reported having some college (31.9%) or were college graduates (30.9%), with 8.3% identifying as high school graduates, 6.3% having gone to trade school, 10.6% having completed some postgraduate work, and 11.6% having completed postgraduate degrees. The majority of participants were currently involved in romantic relationships (80.1%, 75.4% of whom considered it committed). Of the participants that were not currently involved in a romantic relationship, 98.4% had been in a romantic relationship before (88.7% of whom considered it committed).

Participants were recruited through email and Facebook by being sent a link leading them to the survey. Those who received the link via email or Facebook were encouraged to complete the study and also to pass the study on to those they know. The emails were sent to the researcher’s personal contact list. The link was posted on my personal Facebook page and the Facebook post said: "Please help me with my thesis! If you are 18 or older and would like a chance to win a $100 Amazon gift card, please participate. The study takes only 15-20 minutes." The post then provided the link to the survey. Along with the link prompting the completion of the survey, participants received
a letter (see appendix A) describing the study along with the benefits of participation, in the email. Participants were administered the survey through an online survey engine, SurveyMonkey®. Those forwarded the email were encouraged to forward the letter and link on to their contact list and many Facebook friends reposted the original post to their personal Facebook pages.

**Procedure**

Participants clicked on the hyperlink provided through email or Facebook, leading them to the survey for the study. The first item that the participants came across was the informed consent (Appendix B). If and when they gave their consent they were then taken to the survey. The participants also completed a demographic questionnaire (gender, relationship status, age, and ethnicity) along with the questionnaires measuring attachment, Big Five personality, social desirability, and self-esteem (described below). The scales measuring attachment, Big Five personality, social desirability, and self-esteem were counterbalanced, meaning the order in which each participant received the measures was randomized. Each participant was taken to the informed consent first followed by the randomized scales and then to the demographic questionnaire. The completion of the survey was predicted to take approximately 15-20 minutes. After participants completed the survey, the participants then had a chance to sign up to win a $100 Amazon gift card. The original plan was to give a chance to win 1 of 4 $20 Amazon gift cards, but when the study was originally published, the researcher made the mistake of forgetting to add a gift card at all. And in a rush to add the gift card, the researcher
realized there was no multiple gift card option so the prize was changed to a chance to win a $100 gift card instead. The IRB was informed and approved this change.

**Measures**

**Demographic questionnaire**

This research included a demographic questionnaire (Appendix C) consisting of questions eliciting participants’ age, gender, education level, and relationship status.

**Adult Attachment**

Participants completed the Experiences in Close Relationships-Revised Scale (ECR-R; Fraley, Waller, & Brennan, 2000); see Appendix D. The scale consists of 36 items, 18 for each scale (avoidance and anxiety). Participants rate the level they agree with the statement on a 7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree. A sample question from the attachment-related anxiety portion includes: “When my partner is out of sight, I worry that he or she might become interested in someone else.” A sample question from the attachment-related avoidance portion includes: “I am nervous when partners get too close to me.”

Test-retest reliability was greater than $r = .90$ for both the anxious and avoidant subscales (Sibley, Fischer, & Liu, 2005). Cronbach’s alpha was reported for attachment avoidance as .91 and .93 for attachment anxiety. Validity evidence was provided by comparing the ECR-R with the Relationship Questionnaire, with each anxiety scale was postively correlated ($r(298) = .60, p < .001$), and each avoidance scale was positively
correlated \( r(298) = .62 \). Through factor analysis with the RQ and the ECR-R, it was found that avoidance and anxiety measure two separate constructs (Sibley et al., 2005).

**Big Five Personality**

Participants completed the Big Five Inventory (BFI; John et al., 2000), which measures the participant’s level of each of the following five personality domains; neuroticism (8 items), extraversion (8 items), conscientiousness (9 items), openness to new experience (10 items), and agreeableness (9 items); see Appendix E. The scale consists of 44 items, and the participant selects how strongly they agree or disagree, ranging from 1 = strongly disagree to 5 = strongly agree. Each item on the scale has the same sentence stem “I see myself as someone who…” and each item finishes this phrase. An example of an extraversion statement is: “generates a lot of enthusiasm.” An example of an agreeableness statement is: “is considerate and kind to almost everyone.” An example of a conscientious statement is: “makes plans and follows through with them.” An example of a neuroticism statement includes: “can be tense.” And an example of openness to experience is: “likes to reflect, play with ideas.”

An average internal consistency of \( \alpha = .83 \) is reported by John et al. (2000), with extraversion \( \alpha = .86 \), agreeableness \( \alpha = .79 \), conscientiousness \( \alpha = .82 \), neuroticism \( \alpha = .87 \), and openness to experience \( \alpha = .83 \). Evidence of validity was provided through a comparison of the BFI to two other measures of the Big Five, finding correlations above \( r = .90 \) for both.
Self-esteem

Participants completed the Rosenberg Self-esteem Scale (RSES; Rosenberg, 1965), which measures the participants’ global self-esteem; see Appendix F. The scale consists of 10 items, in which the participant rates how much they agree or disagree with the statement using a 4-point likert scale ranging from 0 = strongly agree to 3 = strongly disagree. A sample item of this scale is: “I feel that I have a number of good qualities.”

Sinclair et al. (2010) found ample psychometric support for the RSES to be used with American adults across multiple demographic subgroups. Internal consistency reliability was high at $\alpha = .91$. Sinclair et al. (2010) also found adequate psychometric support for the use of the RSES across multiple subgroups. Evidence of validity was given when the RSES was compared to a measure of self liking with a correlation of $r = .95$ (Sinclair et al., 2010).

Social Desirability

Participants completed the Marlowe-Crowne Social Desirability Short Form (MCSD-SF; Reynolds, 1982); see Appendix G. The original 33-item Marlowe-Crowne Social Desirability Scale measured the response tendencies due to the degree of wanting to appear socially desirable. Reynolds created a short form of Marlowe-Crowne Social Desirability Scale in 1982 determining that a 13-item short form provided a good balance between brevity and reliability and validity. Internal consistency reliability is adequate ($r_{KR20}=.76$), and the short form correlates highly ($r = .93$) with the original Marlowe-Crowne Scale (Reynolds, 1982). This short form measures the degree to which the
participant may have a tendency to respond in a socially desirable way, which can impact the score on self-report measures significantly. An example item from the short form includes: “No matter who I’m talking to, I’m always a good listener.” This scale is measured by true = 1 or false = 2, once recoded, true represented not socially desirable and false represented the socially desirable response.

**Omitted Questions**

When entering the scales onto the surveymonkey® website; the researcher inadvertently omitted three questions from the protocol. One of the omitted questions was from the MCSD and two were from the BFI. The question omitted from MCSD was “there have been times when I was quite jealous of the good fortune of others.” The questions omitted from the BFI were from the agreeableness scale (“…is generally trusting”) and from conscientiousness scale (“…tends to be lazy”). Because only a one item from each of these scales were deleted, it is thought to have not made much of an impact on the validity of the agreeableness, conscientiousness, or social desirability scales.
RESULTS

Participants \(N = 301\) completed an online survey, consisting of the Big Five Personality Inventory (BFI), the Experiences in Close Relationships Questionnaire – Revised (ECR-R), the Rosenberg Self-esteem Scale (RSES), and the Marlowe-Crowne Social Desirability Scale Short Form (MCSD-SF), followed by a demographic questionnaire. Of the 337 participants that started the survey, 310 completed it. Of the 310 completed forms, nine participants were eliminated because they were missing one or more entire scale(s) within the survey. Missing data were filled in by substituting the mean score for that individual on that particular scale. No more than one or two items were missed on any one scale by any one participant. Appropriate descriptive statistics were calculated including means, standard deviations, and Cronbach’s \(\alpha\) reliability coefficients for each scale as presented in Table 1. The internal consistency reliability for attachment anxiety and avoidance, the Big Five personality domains, self-esteem, and social desirability were all consistent with past research.
Table 1

Descriptive Statistics for Study Scales

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>SD</th>
<th>Possible Range</th>
<th>Actual Range</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment Anxiety</td>
<td>2.76</td>
<td>1.29</td>
<td>1.0-7.0</td>
<td>1.0-6.67</td>
<td>0.948</td>
</tr>
<tr>
<td>Attachment Avoidance</td>
<td>2.26</td>
<td>0.86</td>
<td>1.0-7.0</td>
<td>1.0-4.11</td>
<td>0.939</td>
</tr>
<tr>
<td>Extraversion</td>
<td>26.67</td>
<td>6.11</td>
<td>8.0-40.0</td>
<td>11.0-40.00</td>
<td>0.869</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>30.35</td>
<td>4.52</td>
<td>8.0-40.0</td>
<td>19.0-40.00</td>
<td>0.782</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>29.99</td>
<td>4.66</td>
<td>8.0-40.0</td>
<td>18-40.00</td>
<td>0.787</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>23.74</td>
<td>5.19</td>
<td>8.0-40.0</td>
<td>8.0-38.00</td>
<td>0.793</td>
</tr>
<tr>
<td>Openness to Experience</td>
<td>35.67</td>
<td>5.68</td>
<td>10.0-50.0</td>
<td>20.0-49.00</td>
<td>0.788</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>32.27</td>
<td>5.28</td>
<td>10.0-40.0</td>
<td>15.0-40.00</td>
<td>0.894</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>17.71</td>
<td>2.82</td>
<td>12.0-24.0</td>
<td>12.0-24.00</td>
<td>0.71</td>
</tr>
</tbody>
</table>

To test hypotheses 1 through 3, attachment and personality were correlated with each other and with self-esteem. The correlation matrix including attachment and personality is presented in Table 2.
Table 2

Correlation Matrix for Attachment and Personality

<table>
<thead>
<tr>
<th></th>
<th>Anxiety</th>
<th>Avoid</th>
<th>Extra</th>
<th>Agree</th>
<th>Consc</th>
<th>Neur</th>
<th>Open</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td></td>
<td>0.56**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoid</td>
<td>0.56**</td>
<td></td>
<td>-0.142**</td>
<td>-0.185**</td>
<td>-0.283**</td>
<td>0.392**</td>
<td>-0.033</td>
</tr>
<tr>
<td>Extraversion</td>
<td>-0.142**</td>
<td>-0.246**</td>
<td></td>
<td>0.225**</td>
<td>0.224**</td>
<td>-0.257**</td>
<td>0.226**</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>-0.185**</td>
<td>-0.321**</td>
<td>0.225**</td>
<td></td>
<td>0.238**</td>
<td>-0.439**</td>
<td>0.195**</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-0.293**</td>
<td>-0.289**</td>
<td>0.224**</td>
<td>0.238**</td>
<td></td>
<td>-0.235**</td>
<td>-0.004</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>0.392**</td>
<td>0.265**</td>
<td>-0.257**</td>
<td>-0.439**</td>
<td>-0.235**</td>
<td></td>
<td>-0.145**</td>
</tr>
<tr>
<td>Openness to experience</td>
<td>-0.033</td>
<td>-0.119**</td>
<td>0.226**</td>
<td>0.195**</td>
<td>-0.004</td>
<td></td>
<td>-0.145**</td>
</tr>
</tbody>
</table>

N = 301

* = p < .05, ** = p < .01

In order to test hypothesis one, the two scales of attachment were correlated with the Big Five personality scales. The hypothesis was supported; extraversion, agreeableness and conscientiousness were found to be negatively correlated with attachment avoidance. Neuroticism and both dimensions of attachment were significantly negatively correlated. Anxiety ($r = .392$) was significantly more highly correlated with neuroticism than was avoidance ($r = .265$, $Z = 2.693$, $p = .007$). Finally, openness to new experience was significantly correlated with attachment avoidance, $r = -.119$, $p < .05$, although the magnitude was quite low.
To test hypothesis two, the two scales of attachment were correlated with self-esteem. It was predicted that anxiety would be negatively correlated but that avoidance would not be correlated with self-esteem. This hypothesis was only partially supported, as both anxiety ($r = -.519$) and avoidance ($r = -.433$) were significantly correlated with self-esteem; both $p < .001$. The anxiety finding is consistent with past research, whereas the avoidance correlation is not.

Hypothesis three was tested by correlating all five of the personality domains with self-esteem. This hypothesis was supported, as extraversion ($r = .381, p < .001$), agreeableness ($r = .321, p < .001$), and conscientiousness ($r = .429, p < .001$) were all significantly positively correlated with self-esteem. As predicted within hypothesis 3, neuroticism was significantly negatively correlated with self-esteem, $r = -.569, p < .001$. Surprisingly, openness to experience was significantly correlated as well although, as above, the magnitude was low, $r = .156, p < .05$.

In order to assess the main question of this study (which better predicts self-esteem between personality and attachment?) hierarchical multiple regressions were conducted in which three sets of predictors were entered: social desirability, personality and attachment. Because there was no theoretical reason for entering attachment or personality before the other, both directions were assessed. In both analyses social desirability was entered as the first step in order to control for its contribution to the other variables. The first model, including only social desirability, was significant, $F(1, 299) = 25.607, p < .001$ and explained 7.9% of the variance in self-esteem.
After entry of attachment anxiety and attachment avoidance at step 2, the total variance explained as a whole was 31.5% (\(F_{\text{change}} (2, 297) = 51.28, p < .001\), and \(F (2, 297) = 45.593, p < .001\)). Attachment therefore explained 23.6% more variance in self-esteem after controlling for social desirability. In the final step, all five factors of personality were then added, and overall 53.1% of the variance was explained (\(F_{\text{change}} (3, 292) = 26.885, p < .001\) and \(F (3, 292) = 41.351, p < .001\)). Personality therefore explained 21.6% of additional variance in self-esteem, above and beyond that explained by social desirability and attachment.

In the second hierarchical multiple regression analysis, social desirability was still entered first. In the second step, the five personality factors, this model was significant \(F_{\text{change}} (2, 294) = 40.778, p < .001\) and \(F (2, 294) = 41.089, p < .001\) overall explaining 45.6%. Personality therefore explained 37.7% more of the variance in self-esteem when social desirability was controlled for. In the final step, attachment was then added, and this final model was significant \(F_{\text{change}} (3, 292) = 23.376, p < .001\) and \(F (3, 292) = 41.351, p < .001\) with the model explaining 53.1% of the variance in self-esteem. Attachment therefore explained only 7.5% of the variance in self-esteem, above and beyond that explained by social desirability and personality.

While each set of predictors, personality and attachment, makes its own unique contribution to the variance in self-esteem, it is clear that self-esteem is better predicted by personality. Within each multiple hierarchical regression analysis, personality
explained the most variance within self-esteem, above and beyond social desirability and attachment.

In the final model, once all predictors were entered, 4 of the 8 were statistically significant with neuroticism having the highest beta ($\beta = -.358, p < .001$) next to attachment anxiety ($\beta = -.254, p < .001$) and then conscientiousness ($\beta = .227, p < .001$) and extraversion ($\beta = .173, p < .001$) in explaining the variance within self-esteem. So it is found that, although the overall construct of personality better explains self-esteem than does attachment, the greatest prediction of self-esteem is the combination of neuroticism, attachment anxiety, conscientiousness, and extraversion.
DISCUSSION

This study’s purpose was to investigate the relationship between attachment, personality, and self-esteem and to assess whether attachment or personality is a better predictor of self-esteem. The hypotheses were based on past research that combined these variables, and most were found to be supported. It was hypothesized that attachment anxiety and avoidance would have a positive correlation with neuroticism, and that anxiety would have an even stronger correlation. It was also hypothesized that attachment avoidance would be negatively correlated with extraversion, agreeableness, and conscientiousness. When looking at the relationship between attachment and self-esteem, it was hypothesized that attachment avoidance would not be significantly correlated with self-esteem, but attachment anxiety would. And when assessing the relationship between personality and self-esteem; it was hypothesized that extraversion, agreeableness, and conscientiousness would be positively correlated, while neuroticism would be negatively correlated. The main question this study sought to understand was whether personality variables or attachment variables better predict self-esteem.

Most hypotheses were supported, and hierarchical multiple regression analyses yielded a clear answer to the main research question. Hypothesis one (a and b) regarding attachment and personality was supported and fell in line with previous research. Individuals scoring high in either attachment anxiety or avoidance tended to score higher on neuroticism; this was particularly true for high scorers on attachment anxiety.
Additionally, individuals scoring high on attachment avoidance tended to score lower on extraversion, agreeableness, and conscientiousness.

Hypothesis two yielded one expected and one unexpected result. As expected, attachment anxiety was negatively correlated with self-esteem, but unexpectedly so was attachment avoidance. This finding is interesting in that individuals scoring high on both dimensions (attachment anxiety and avoidance) are believed to have low implicit self-esteem, but research generally does not find this negative relationship between explicit self-esteem and attachment avoidance (Fraley et al., 2011; Foster et al., 2009; Murray et al., 2000; Srivasta et al., 2005; Wu, 2009). This study’s finding is surprising because the RSES measures explicit self-esteem. We’re not sure why this finding occurred.

The correlations between personality and self-esteem were consistent with previous research. Neuroticism has a strong negative relationship with self-esteem. This can be explained through the definitions of each of these constructs, as neuroticism can be seen as a propensity toward negative emotionality (Costa & McCrae, 1992) and low self-esteem represents holding a low regard toward oneself. This relationship is found time and time again. It is possible that the more frequent negative affect that people with high neuroticism experience could lead to lower self-esteem. And it is also possible that low self-esteem can be a source of negative emotion. Also for hypothesis three; extraversion, agreeableness, and conscientiousness were all positively correlated with self-esteem. It is interesting to note that extraversion and agreeableness are the two most social of the personality domains and have an important positive relationship with self-
esteem; often those with scoring high on these social domains feel better about themselves. One way of interpreting this is through the lens of sociometer theory (Srivastava & Beer, 2005), which states that one bases much of their self-worth off of interactions with and appraisals by others. Those scoring high on extraversion are more likely to encounter social interactions and those scoring high on agreeableness are more likely experience more positive interactions. Through the scope of the sociometer theory we can then see how these individuals might then have higher self-esteem.

Two findings were unexpectedly significant with regard to openness to experience. Prior research suggests that there is no significant correlation between openness to experience and avoidance and openness to experience and self-esteem. In this study both were found to be significantly correlated, but both were small correlations. Such low-magnitude correlation coefficients reached statistical significant because of the large sample size in this study.

When looking at the results as a set, personality contributes most significantly to the variance in self-esteem. Wijngaards-de Meij and colleagues (2007) assessed whether the personality domain of neuroticism and the two attachment domains on their ability to explain the variance of psychological adjustment in parents grieving over the loss of their children. The results showed that neuroticism explained more variance than did attachment, similar to the findings in this study. Even though grief and psychological adjustment are different than self-esteem, these findings can be useful in interpreting these results. Wijngaards-de Meij et al. (2007) discuss the fact that there is much reason
to believe that attachment (an interpersonal construct) would have predicted their dependent variable better (much like the sociometer theory does). So, why then is self-esteem better predicted by neuroticism? Neuroticism is defined as the tendency to feel negative emotions, this makes the relationship between neuroticism and self-esteem a logical one (Costa & McCrae, 1992). Also, one carries with them their personality throughout their life and often incorporates their personality into their attitude of themselves (Costa & McCrae, 1988). Whereas attachment is less stable and changes at different points in ones’ life, this could mean that personality, because it is more stable, has more impact on ones’ self-esteem.

But when looking at each construct individually, our ability to predict self-esteem is even greater. Four of the eight constructs were statistically significant in explaining the variance within self-esteem, which include (in order of magnitude): neuroticism, attachment anxiety, conscientiousness, and extraversion. It is still important to note, that attachment anxiety is the second greatest predictor of self-esteem within this study and that the combination of the four (neuroticism, anxiety, conscientiousness, extraversion) provides the most explanation of self-esteem from our possible constructs. This means that the interpersonal aspect and the cognitive aspects within the construct of attachment anxiety also contributes to self-esteem.

**Strengths and limitations**

This study brought together the two independent lines of research with regard to self-esteem and both personality and attachment. The results of this study give us a
unique understanding of how the constructs of attachment and the Big Five personality interact and distinctively relate to self-esteem. Another strength to this study is the fact that there were over 300 participants with a range of demographic information (ie. age). Attachment may have been better captured for this sample because most were currently in a relationship and if they were not currently in a relationship, most of them had been in the past providing them with something recent to base their attachment experience off of. It may have been helpful that we gathered the data online, assisting in providing more anonymity for the participants and possibly allowing for more honesty.

Some limitations to this study include the fact that most of the participants were young, educated adults and therefore the results have somewhat limited generalizability. The fact that questions were omitted is a limitation to this study, perhaps validity evidence could have been stronger had those questions not been eliminated. Also, the sample could have been compared to the norms for those individual scales, had the questions not been eliminated.

**Clinical Implications**

Based on this research clinicians can be better aware of what to look for with clients. It is clear that personality predicts self-esteem more than attachment but that each makes a contribution. It is possible that assessing personality early on could be helpful to the clinician in getting to know what issues the client might bring to therapy. Clinicians can use this research as knowledge about what in particular to keep an eye out for with clients. Specifically low self-esteem can be predicted by high neuroticism, high
attachment anxiety, low extraversion, and low conscientiousness. Because self-esteem’s variance was explained well by neuroticism, attachment anxiety, conscientiousness and extraversion; clinicians can notice patterns of negative affectivity, insecure attachment cognitions and so on in order to make informed judgments early on about where their client stands with self-esteem.

This research also may provide clinicians with an idea of what they typically might see in therapy, especially when dealing with low self-esteem. Although attachment anxiety is the second greatest predictor of self-esteem, for some clients it may be more relevant to intervene here versus neuroticism because it is more malleable and workable in therapy. Clinicians may use the knowledge provided by this research as a tool assisting in getting to know their client and helping their clients. As self-esteem is often an important topic within the psychotherapeutic setting, with this research clinicians may be provided with an understanding of more of what impacts self-esteem and may be able to paint a better picture of their client. Often a goal present in therapy is to learn ways to accept oneself, this research has provided a pathway toward understanding how we might get there with clients. I plan on using this knowledge in my own work with clients in these aforementioned ways.

**Directions for future research**

Future studies should attempt to replicate this study by including more diversity with regard to education level and age. A broader sample would yield more generalizable results. It would be interesting to explore the more interpersonal aspects at play by
including the participants’ significant other or using more observational ways of measuring attachment (ie. Adult Attachment Interview). Because this study’s results were significant, it would be of value for future research to explore the more applied areas of this research by studying how intervention can play a role in self-esteem. Even though over half the variance in self-esteem was explained by the various constructs included in this study, there are many other unexamined variables that are most likely affecting self-esteem as well. Future studies may benefit by including other possible predictors (ie. DSM diagnoses, negative life events, self-efficacy).
References


Fraley, R. C. Stability and change in attachment security: How stable are attachment patterns across the life course? In *Chris Fraley Research Interests*. 
http://internal.psychology.illinois.edu/~rcfraley/research.htm.


Appendix A

Internet Recruitment Letter

Dear Potential Research Participant,

You are invited to participate in a study about personal style and relationships. I am a psychology graduate student at Humboldt State University in Arcata, CA. We are looking for participants that are 18 or older.

If you decide to participate, you may enter a drawing for a chance to win a $100 Amazon gift cards. After signing below, you will be directed to a set of questions about personal style and relationships. Answering all of these questions will take about 15 to 20 minutes. The results will help researchers and mental health practitioners. To enter the drawing for the $100 Amazon gift card, you will have to provide your name and contact information, but this information will not be connected to your survey responses in any way.

Any information that is obtained in connection with this study will be used for research purposes. All information you, as the participant, provide will remain confidential. Only the researcher, research assistants, and faculty supervisor for this study will access your responses. Your responses will not be made accessible to university administration or personnel.

If you decide to participate, you are free to discontinue participation at any time.

If you have any questions, please ask. If you have additional questions later, you may contact me at the information below, and I will be happy to answer them.

Investigator: Kayleigh A. McCutchan
Master of Arts in Psychology, Counseling Candidate
Humboldt State University
kam119@humboldt.edu

If you have any concerns regarding this project, or any dissatisfaction with any part of this study, you may contact the IRB Chair, Dr. Ethan Gahtan, at eg51@humboldt.edu or (707) 826-4545.

If you have questions regarding your rights as a participant, you may report them to the IRB Institutional Official at Humboldt State University, Dr. Rhea Williamson, at Rhea.Williamson@humboldt.edu or (707) 826-5169.

Link to participating in the research study:
https://www.surveymonkey.com/s/J6RNS25
Appendix B

Informed Consent

You are invited to participate in a study about personal style and relationships. I am a psychology graduate student at Humboldt State University in Arcata, CA. We are looking for participants that are 18 or older.

If you decide to participate, you may enter a drawing for a chance to win a $100 Amazon gift cards. After signing below, you will be directed to a set of questions about personal style and relationships. Answering all of these questions will take about 15 to 20 minutes. The results will help researchers and mental health practitioners. To enter the drawing for the $100 Amazon gift card, you will have to provide your name and contact information, but this information will not be connected to your survey responses in any way.

Any information that is obtained in connection with this study will be used for research purposes. All information you, as the participant, provide will remain confidential. Only the researcher, research assistants, and faculty supervisor for this study will access your responses. Your responses will not be made accessible to university administration or personnel.

If you decide to participate, you are free to discontinue participation at any time.*

If you have any questions, please ask. If you have additional questions later, you may contact me at the information below, and I will be happy to answer them.

Investigator: Kayleigh A. McCutchan
Master of Arts in Psychology, Counseling Candidate
Humboldt State University
kam119@humboldt.edu

You are making a decision whether or not to participate. Your completing the online survey indicated that you have read the information provided above and decided to participate. You may withdraw at any time after signing this form, should you choose to discontinue participation in this study.**

* You are under no obligation to participate in the study. Your completing the online survey questionnaire will be taken as evidence of your willingness to participate and your consent to have the information used for purposes of the study.
** You may retain the cover letter from your email pertaining to the nature of your participation handling of the information you supply.

If you have any concerns regarding this project, or any dissatisfaction with any part of this study, you may contact the IRB chair, Dr. Ethan Gahtan, at eg51@humboldt.edu or (707) 826-4545.

If you have questions regarding your rights as a participant, you may report them to the IRB Institutional Official at Humboldt State University, Dr. Rhea Williamson, at Rhea.Williamson@humboldt.edu or (707) 825-5169.
Appendix C

Demographic Questionnaire

1. What is your gender? (Male, Female, Other)
2. What is your age? (18-29, 30-49, 50-64, 65+)
3. What is the highest level of education you have completed? (Some high school, High School graduate, Some college, Trade/technical/vocational training, College graduate, Some postgraduate work, Post graduate degree)
4. Are you currently involved in a romantic relationship? (Yes, No)
   - If yes, do you consider it a committed relationship? (Yes, No)
     - If yes, how long have you been committed? (Open ended)
   - If no, have you ever been involved in a romantic relationship? (Yes, No)
     - If yes, did you consider it a committed relationship? (Yes, No)
     - If yes, how long were you committed? (Open ended)
Appendix D

Experiences in Close Relationships-Revised Scale (ECR-R)

The statements below concern how you feel in emotionally intimate relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by clicking a number to indicate how much you agree or disagree with the statement.

1. I'm afraid that I will lose my partner's love.
2. I often worry that my partner will not want to stay with me.
3. I often worry that my partner doesn't really love me.
4. I worry that romantic partners won't care about me as much as I care about them.
5. I often wish that my partner's feelings for me were as strong as my feelings for him or her.
6. I worry a lot about my relationships.
7. When my partner is out of sight, I worry that he or she might become interested in someone else.
8. When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.
9. I rarely worry about my partner leaving me.
10. My romantic partner makes me doubt myself.
11. I do not often worry about being abandoned.
12. I find that my partner(s) don't want to get as close as I would like.
13. Sometimes romantic partners change their feelings about me for no apparent reason.
14. My desire to be very close sometimes scares people away.
15. I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am.
16. It makes me mad that I don't get the affection and support I need from my partner.
17. I worry that I won't measure up to other people.
18. My partner only seems to notice me when I’m angry.
19. I prefer not to show a partner how I feel deep down.
20. I feel comfortable sharing my private thoughts and feelings with my partner.
21. I find it difficult to allow myself to depend on romantic partners.
22. I am very comfortable being close to romantic partners.
23. I don't feel comfortable opening up to romantic partners.
24. I prefer not to be too close to romantic partners.
25. I get uncomfortable when a romantic partner wants to be very close.
26. I find it relatively easy to get close to my partner.
27. It's not difficult for me to get close to my partner.
28. I usually discuss my problems and concerns with my partner.
29. It helps to turn to my romantic partner in times of need.
30. I tell my partner just about everything.
31. I talk things over with my partner.
32. I am nervous when partners get too close to me.
33. I feel comfortable depending on romantic partners.

34. I find it easy to depend on romantic partners.

35. It's easy for me to be affectionate with my partner.

36. My partner really understands me and my needs.
Appendix E

Big Five Inventory (BFI)

The following statements concern your perception about yourself in a variety of situations. Your task is to indicate the strength of your agreement with each statement, utilizing a scale in which 1 denotes strong disagreement, 5 denotes strong agreement, and 2, 3, and 4 represent intermediate judgments. In the boxes after each statement, click a number from 1 to 5 from the following scale:

1. Strongly disagree
2. Disagree
3. Neither disagree nor agree
4. Agree
5. Strongly agree

There are no "right" or "wrong" answers, so select the number that most closely reflects you on each statement. Take your time and consider each statement carefully.

I see myself as someone who…

1. …Is talkative
2. …Tends to find fault with others
3. …Does a thorough job
4. …Is depressed, blue
5. …Is original, comes up with new ideas
6. …Is reserved
7. …Is helpful and unselfish with others
8. …Can be somewhat careless
9. …Is relaxed, handles stress well
10. …Is curious about many different things
11. …Is full of energy
12. …Starts quarrels with others
13. …Is a reliable worker
14. …Can be tense
15. …Is ingenious, a deep thinker
16. …Generates a lot of enthusiasm
17. …Has a forgiving nature
18. …Tends to be disorganized
19. …Worries a lot
20. …Has an active imagination
21. …Tends to be quiet
22. …Is generally trusting
23. …Tends to be lazy
24. …Is emotionally stable, not easily upset
25. …Is inventive
26. …Has an assertive personality
27. …Can be cold and aloof
28. …Perseveres until the task is finished
29. …Can be moody
30. …Values artistic, aesthetic experiences
31. …Is sometimes shy, inhibited
32. …Is considerate and kind to almost everyone
33. …Does things efficiently
34. …Remains calm in tense situations
35. …Prefers work that is routine
36. …Is outgoing, sociable
37. …Is sometimes rude to others
38. …Makes plans and follows through with them
39. …Gets nervous easily
40. …Likes to reflect, play with ideas
41. …Has few artistic interests
42. …Likes to cooperate with others
43. …Is easily distracted
44. …Is sophisticated in art, music, or literature
Appendix F

Rosenberg’s Self-esteem Scale (RSES)

Below is a list of statements dealing with your general feelings about yourself. If you
Strongly Agree, click SA. If you Agree with the statement, click A. If you Disagree, click
D. If you Strongly Disagree, click SD.

1. I feel that I am a person of worth, at least on an equal plane with others.
2. I feel that I have a number of good qualities.
3. All in all, I am inclined to feel that I am a failure.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I take a positive attitude toward myself.
7. On the whole, I am satisfied with myself.
8. I wish I could have more respect for myself.
9. I certainly feel useless at times.
10. At times I think I am no good at all.
Appendix G

Marlowe-Crowne Social Desirability Short Form (MCSD-SF)

Answer the following questions “true” or “false,” based on how you generally think, feel, and act. Click either the “T” or the “F”

1. It is sometimes hard for me to go on with my work if I am not encouraged.  
   T  F

2. I sometimes feel resentful when I don’t get my way.  
   T  F

3. On a few occasions, I have given up doing something because I thought too little of my ability.  
   T  F

4. There have been times when I felt like rebelling against people in authority even though I knew they were right.  
   T  F

5. No matter who I’m talking to, I’m always a good listener.  
   T  F

6. There have been occasions when I took advantage of someone.  
   T  F

7. I’m always willing to admit it when I make a mistake.  
   T  F

8. I sometimes try to get even rather than forgive and forget.  
   T  F

9. I am always courteous, even to people who are disagreeable.  
   T  F

10. I have never been irked when people expressed ideas very different from my own.  
    T  F

11. There have been times when I was quite jealous of the good fortune of others.  
    T  F

12. I am sometimes irritated by people who ask favors of me.  
    T  F

13. I have never deliberately said something that hurt someone’s feelings.  
    T  F