INSTABILITY OF CONTINGENCIES OF SELF-WORTH: THE ROLE OF APPROACH-AVOIDANCE TEMPERAMENT

A thesis presented to the faculty of the Graduate School of Western Carolina University in partial fulfillment of the requirements for the degree of Master of Arts in Psychology.

By

Garrett Scott Goodwin

Director: Dr. Christopher J. Holden
Visiting Assistant Professor of Psychology
Psychology Department

Committee Members: Dr. David de Jong, Psychology
Dr. Erin Myers, Psychology

March 2018
ACKNOWLEDGEMENTS

I would like to express my gratitude to my supervisor, Dr. Christopher Holden, whose expertise, understanding, and most of all, patience, added considerably to my experience and growth as a graduate student. Dr. Christopher Holden has been an excellent mentor and we spent many hours together conceptualizing, proofreading and crafting my writing. The guidance I received from Chris has been priceless and overall an opportunity for professional development. His direction, technical support, and willingness to listen whenever I dropped in his office with a hair-brained idea has made this a rewarding journey.

I would also like to thank other members of my thesis committee, Dr. David de Jong and Dr. Erin Myers, for their motivation and encouragement over the past two years as I moved from an idea to a completed study. I must also acknowledge my cohort members who provided scientific debates, exchanges of knowledge, skills, and venting of frustration during this endeavor.
# Table of Contents

List of Tables ................................................................................................................................. iv  
List of Abbreviations ....................................................................................................................... v  
Abstract .......................................................................................................................................... vi  
Chapter One: Introduction ...............................................................................................................1  
Chapter Two: Literature Review .....................................................................................................2  
  Self-Esteem ..................................................................................................................................4  
    Trait and State Self-Esteem ........................................................................................................4  
  Self-Esteem Fragility ....................................................................................................................5  
    Discrepant Self-Esteem ..............................................................................................................6  
    Unstable Self-Esteem ..................................................................................................................6  
  Contingent Self-Esteem ..............................................................................................................7  
  Domains of Contingencies of Self ...............................................................................................8  
  Sociometer Theory ....................................................................................................................10  
  Goal Directed Behavior .............................................................................................................11  
    Approach and Avoidance Motivation ....................................................................................11  
  Summary ......................................................................................................................................14  
Chapter Three: Method ..................................................................................................................17  
  Participants and Design ..............................................................................................................17  
  Measures .....................................................................................................................................17  
    Contingencies of Self-Worth Scale ..........................................................................................17  
    Rosenberg Self-Esteem Scale ..................................................................................................18  
    Approach-Avoidance Temperament Questionnaire ..............................................................18  
    Positive and Negative Affect Scale ......................................................................................18  
    Dummy Personality Inventory ...............................................................................................19  
  Procedure ......................................................................................................................................19  
Chapter Four: Results ....................................................................................................................23  
Chapter Five: Discussion ...............................................................................................................26  
  Limitations and Future Directions .............................................................................................29  
References ......................................................................................................................................31  
Appendices .....................................................................................................................................36
LIST OF TABLES

Table 1. Correlation Table .............................................................................................................24
Table 2. Regressions Table ............................................................................................................25
# LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSWS</td>
<td>Contingencies of Self-Worth Scale</td>
</tr>
<tr>
<td>RSES</td>
<td>Rosenberg Self-Esteem Scale</td>
</tr>
<tr>
<td>ATQ</td>
<td>Approach-Avoidance Temperament Questionnaire</td>
</tr>
<tr>
<td>PANAS</td>
<td>Positive and Negative Affect Scale</td>
</tr>
<tr>
<td>ACSE</td>
<td>Approval-Contingent Self-Esteem</td>
</tr>
<tr>
<td>LSE</td>
<td>Low Self-Esteem</td>
</tr>
<tr>
<td>HSE</td>
<td>High Self-Esteem</td>
</tr>
<tr>
<td>MTurk</td>
<td>Amazon.com’s Mechanical Turk</td>
</tr>
</tbody>
</table>
ABSTRACT

INSTABILITY OF CONTINGENCIES OF SELF-WORTH: THE ROLE OF APPROACH-AVOIDANCE TEMPERAMENT

Garrett Goodwin

Western Carolina University

Dr. Christopher J. Holden

Self-esteem has multiple facets and individuals can derive their feelings of self-worth from specific domains in life (i.e., competition, approval of others, virtue; Crocker & Wolfe, 2001). Additionally, research on self-esteem suggests that it evolved as a social monitoring system, known as the sociometer (Leary, Tambor, Terdal, & Downs, 1995). The function of the sociometer is to alert individuals to changes in their relational value to others, which in turn influences their self-esteem, and ultimately their behavior (Leary, Tambor, Terdal, & Downs, 1995; Park & Crocker, 2008). A better understanding of the connection between self-evaluations and behavior can be gained by considering how individuals derive their feelings of self-worth. While people are motivated to succeed and avoid failure, this may particularly be true in the domains from which people derive their feelings of self-worth. Additionally, approach-avoidance motivation may further influence the relationship between evaluations in contingent domains, self-esteem, and behavioral outcomes. The present study expands this research by investigating how approach-avoidance motivation affects the relationship between contingencies of self-worth, self-esteem, and behavioral outcomes. Therefore, I hypothesized that individuals with low self-esteem and avoidance motivation would shift away from a domain that receives negative
feedback. Those with high self-esteem and approach motivation, however, would increase the value placed on a domain after receiving negative feedback and positive feedback. Results suggest that avoidantly motivated individuals’ self-worth became increasingly contingent upon other’s approval no matter the feedback they received.
CHAPTER ONE: INTRODUCTION

“In its wildest possible sense, however, a man’s Self is the sum total of all the he CAN call his, not only his body and his psychic powers, but his clothes and his house, his wife and children, his ancestors and friends, his reputation and works, his lands and horses, and yacht and bank account. All these things give him the same emotions. If they wax and prosper, he feels triumphant; if they dwindle and die away, he feels cast down, --- not necessarily in the same degree for each thing, but in much the same way for all.”

~ William James, The Principles of Psychology

The inner workings of the self have captured psychologists and the laypersons’ attention since the late 19th century (James, 1890). A quick Google search of the term self-esteem returns 56.5 million hits. The growing popularity of self-esteem can be traced to the self-esteem movement in the late 1980’s, which focused on the positive effects of high self-esteem levels (i.e., academic underachievement, crime, drug use; Mecca, Smelser, & Vasoconcellos, 1989). Self-esteem was first discussed by William James in his work concerning the self (James, 1890). In James’s (1890) chapter on the self he writes about self-feelings, what is now seen as self-esteem, of being comprised of feelings of complacency and dissatisfaction. These self-feelings, according to James, did not hinge upon successes or failures, but an average “tone” carried by each person. James described variances in self-feelings as a barometer, meaning individuals possess an awareness of variations in feelings of the self throughout their life. As noted in the opening quote from this chapter, James also recognizes that people may derive their self-esteem
from particular domains in life. Furthermore, James (1890) explains that these self-feelings seem to be visceral and organic rather than rational feelings.

James’ definition of self-esteem is still relevant today. A modern definition of self-esteem is the evaluative aspect of self-knowledge that reflects a person’s feelings of competence and affinity for themselves (Brown, 1998; Zeigler-Hill, 2013). It is important to note that self-esteem is not an objective evaluation of the self, but a reflection of subjective perceptions rather than reality (Zeigler-Hill, 2013). Those with high self-esteem generally think positively of themselves, while those with low self-esteem generally hold negative opinions about themselves. Kernis (2003) indicates that self-esteem is a relatively stable trait with motivational and cognitive pieces. These aspects of self-esteem also help to regulate behaviors and indicate that people have a desire for high levels of self-esteem (Park & Crocker, 2013). Regulation of behavior occurs when individuals have internal evaluations concerning their personal worth (Crocker & Park, 2003; Leary & Baumeister, 2000; Park & Crocker, 2008).

New conceptualizations suggest that there are three components of self-esteem (Brown & Marshal, 2006). The first component is global self-esteem, also known as trait self-esteem. Trait self-esteem refers to global judgements of self-worth, self-respect, or self-acceptance (Rosenberg, 1965: Crocker & Wolfe, 2001). The average level of trait self-esteem is relatively stable over time and is thought to serve as the set point around which other forms of self-esteem fluctuate (James, 1890; Rosenberg, 1965; Crocker & Wolfe, 2001; Leary, Tambor, Terdal, & Downs, 1995). State self-esteem, the second component of self-esteem, is the momentary fluctuation of self-esteem that serves as an index of inclusion or exclusion from other people (Heatherton & Polivy, 1991; Leary, Tambor, Terdal, & Downs, 1995). State self-esteem unlike trait self-esteem, is sensitive to cues in a particular context. This aspect of self-esteem is closely
linked with cues to social or relational exclusion, which may elicit behaviors to increase inclusionary behaviors (i.e., mimicking others behavior to be more accepted; Leary, Tambor, Terdal, & Downs, 1995; Leary, Haupt, Strausser, & Chokel, 1998). People can experience increases and decreases in their state self-esteem, for example, if an individual receives a promotion at work they will experience a boost in their state self-esteem (Leary, Tambor, Terdal, & Downs, 1995). The last component of self-esteem is contingent self-esteem. Contingent self-esteem occurs when individuals derive their sense of self-worth from specific domains in life (i.e., academics, approval of others; Crocker & Wolfe, 2001). These contingent domains influence the type of feedback attended to as well as how they come to evaluate themselves (Crocker & Wolfe, 2001; Crocker, Sommers, & Luhtanen, 2002). Domain specific evaluations have been shown to moderate the impact that negative feedback has on an individual, specifically those with contingent self-esteem (e.g., academics) having more pronounced reactions to negative feedback (Crocker, Sommers, & Luhtanen, 2002; Park & Crocker, 2008).
Self-Esteem

Trait and State Self-Esteem

Rosenberg (1965) was one of the first to formalize the study of global self-esteem. Like other personality traits, global self-esteem is relatively enduring across the lifespan (Brown & Marshal, 2006). High self-esteem typically presents in individuals with a sense of acceptance, a lessened concern of rejection from others, perceived high relational value, and a clear sense of self (Leary, Tambor, Terdal, & Downs, 1995; Park, 2010). Those with low self-esteem, however, typically present with a heightened concern of disapproval or rejection from others, doubt of their inclusion in social situations, perceived low relational value, and poor evaluations of themselves (Baumeister, Tice, & Hutton, 1989; Park, 2010). Individuals with low self-esteem (LSE) tend to behave in self-protective ways and are more cautious in decision making (Crocker & Luhtanen, 2003; Zeigler-Hill, 2011). Low self-esteem leads the person to disengage from intended goals if their sense of worth is threatened to protect themselves from any further damage (Park, Crocker, & Kiefer, 2007). Those with high self-esteem (HSE), however, tend to react in self-enhancing ways after threat and may further focus attention on seeming competent in the threatened domain (Park, 2010). People with HSE hold confident and favorable views of themselves, thus they tend to try to attain positive end states and may focus on self-enhancement or promotion even if faced with negative feedback (Baumeister, Tice, & Hutton, 1989; Hiempel, Elliot, & Wood, 2006).

Trait self-esteem is assumed to be stable over time, however, momentary changes in self-esteem do occur. State self-esteem reflects these momentary fluctuations in feelings of self-
worth. Feelings of self-worth can fluctuate depending on stimuli in the person’s environment, such as getting a promotion at work, which may serve to bolster momentary feelings of worth. State self-esteem is the evaluative emotional reaction to personal events (Brown & Marshal, 2006). Kernis (2005) uses an analogy of a barometer to represent the changes in state self-esteem. That is, just as the readings on a barometer may change with atmospheric fluctuations, so does state self-esteem. These barometric changes in state self-esteem can occur in response to environmental cues such as the salience of specific self-aspects and the valence of current personal events (Kernis, 1993; Kernis, 2003; Kernis, 2005). State self-esteem can be bolstered, but is also vulnerable to threats from the environment. For example, if a person is treated poorly by their partner they may experience a momentary drop in state self-esteem. In turn, the person may behave in ways that will correct for the drop-in self-esteem or adhere to the behavior that elicited the rise in state self-esteem. People have a propensity to attend to negative stimuli as opposed to positive stimuli, thus drops in state self-esteem are perceived as detrimental to overall feelings of worth (Leary, Tambor, Terdal, & Downs, 1995). Recently, the literature has become focused on what constitutes optimal self-esteem. By fostering unusually high levels of self-esteem a person can come to have grandiose views of themselves, but still hold negative internal feelings without seeming to acknowledge threats to their sense of self (Jordan & Zeigler-Hill, 2013; Kernis, 2003). In some cases, these individuals may have what is considered fragile self-esteem.

**Self-Esteem Fragility**

Research is now differentiating between secure and fragile forms of self-esteem (Deci & Ryan, 1995; Zeigler-Hill, Besser, & King, 2011). Kernis (2003) describes individuals with fragile self-esteem as those whose feelings of self-worth are vulnerable to threat. For example,

**Discrepant Self-Esteem.** The first facet of fragile self-esteem is discrepant self-esteem. This type of self-esteem emerges when a person outwardly (i.e., explicitly) expresses high levels of self-esteem, but may have low internal (i.e., implicit) self-esteem (Jordan & Zeigler-Hill, 2013). Implicit self-esteem is largely nonconscious and reflects the degree of association between a person’s view of themselves and affective feelings (Koole & Pelham, 2003; Jordan & Zeigler-Hill, 2013). Explicit self-esteem, on the other hand, is propositional and reflects the person’s conscious evaluations of themselves (Rosenberg, 1965; Jordan & Zeigler-Hill, 2013). Discrepancies in self-esteem have been associated with defensiveness, self-enhancement, aggression, and more ingroup bias (Jordan & Zeigler-Hill, 2013). Discrepant self-esteem is related to other forms of fragile self-esteem, such as unstable and contingent self-esteem, with low implicit levels of self-esteem being related to basing feelings of self-worth on external factors (i.e., getting the approval of others; Jordan & Zeigler-Hill, 2013; Zeigler-Hill, 2006).

**Unstable Self-Esteem.** Trait self-esteem is understood as relatively stable over time (Rosenberg, 1965), however, more immediate momentary and context-specific forms of self-esteem can fluctuate (Heatherton & Polivy, 1991). Unstable self-esteem occurs when a person experiences a high degree of variability in their feelings of self-worth over time. That is, while
many people experience short-term fluctuations in self-esteem, a person with unstable self-esteem tends to experience greater fluctuations, and these fluctuations may be more prevalent. These fluctuations are often triggered by environmental factors, and thus are equally “barometric.” It is normal to experience fluctuations in state self-esteem, however, those with unstable self-esteem state self-esteem may be in constant flux (Jordan & Zeigler-Hill, 2013; Kernis, 2005). For example, if a person is told they are not accepted by their peers, their state self-esteem may fluctuate, but they do not stay in a state of flux like a person with unstable self-esteem. Additionally, those with unstable self-esteem may engage in behavior such as self-aggrandizement, verbal defensiveness, anger, and hostility (Jordan & Zeigler-Hill, 2013), which can affect their interpersonal relationships.

While conventional measures of self-esteem ask about general feelings of self-worth, state self-esteem measures ask about self-esteem in the present moment. Measuring state self-esteem is done by calculating the within-person variability in a person’s scores over time on a state self-esteem measure (Jordan & Zeigler-Hill, 2013). Thus, greater variability is indicative of unstable forms of self-esteem.

**Contingent Self-Esteem.** Contingent self-esteem occurs when a person has feelings of self-worth that are dependent on meeting perceived standards of performance, approval, or acceptance (Crocker & Wolfe, 2001; Jordan & Zeigler-Hill, 2013). This is a fragile form of self-esteem as people feel good about themselves only when they meet these perceived standards. Contingent self-esteem has been described as globally contingent or specific to certain domains (Crocker & Wolfe, 2001). People with contingent self-esteem have a precarious sense of self and failure to meet perceived standards results in intense feelings of shame, incompetence, worthlessness, and in turn lowered self-esteem level (Crocker, Karpinski, Quinn, & Chase, 2003;
Jordan & Zeigler-Hill, 2013; Park & Crocker, 2008). While this pattern is true across the various proposed domains of contingency, it is important to consider each of these domains, as individuals vary in the degree to which they derive their feelings of self-worth from each domain.

**Domains of Contingencies of Self-Worth**

A framework for assessing contingent domains of self-worth was developed that consisted of seven distinct domains (Crocker & Wolfe, 2001; Croker, Luhtanen, Cooper, & Bouvrette, 2003). The original seven domains are God’s love, virtue, family support, academic competence, competition, appearance, and other’s approval. Some domains are more internal due to their intrapersonal nature and their intrinsic aspects of the self (i.e., virtue, God’s love, etc.). Other domains, however, are external in nature as they represent relatively superficial aspects of the self (i.e., other’s approval, appearance, etc.). These external domains rely on meeting the perceived expectations set in place by societal norms, peer groups, and the social environment in general (Crocker, Luhtanen, Cooper, & Bouvrette, 2003; Sanchez & Crocker, 2005). External contingencies, such as appearance and approval of others, are inversely correlated with trait self-esteem, while virtue, an internal contingency, was positively correlated with trait self-esteem (Crocker & Wolfe, 2001; Crocker, Luhtanen, Cooper, & Bouvrette, 2003). External domains respond to feedback from others, thus affecting state self-esteem (Park & Crocker, 2008). Feedback from others in the contingent domains can be perceived as exclusionary social cues, which may lead an individual to alter their behavior accordingly. For example, if an individual who bases their self-esteem on their appearance is told they are not attractive, they may go to the gym in an attempt to alter their appearance and ensure they are viewed as attractive.
Previous research has found that individuals are particularly susceptible to negative feedback from others in contingent domains of self-worth (Kernis, 2003; Park, Crocker, & Kiefer, 2007). Negative feedback from others can be quite harmful to the individual’s state self-esteem in part because of the need to feel like a person of worth, thus reporting more negative affect and lower trait self-esteem (Crocker, Sommers, & Luhtanen, 2002; Crocker, Karpinski, Quinn, & Chase, 2003; Park & Crocker, 2008). Research on the impact of positive feedback on self-esteem is less established (Crocker, Sommers, & Luhtanen, 2002). Contingent domains of self-worth influence the feedback that is likely to be focused on, in turn motivating individuals’ behavior (Crocker, Brook, Niiya, & Villacorta, 2006). For example, someone who derives their feelings of self-worth from other’s approval may shift the domain in which they derive their sense of worth (e.g., to appearance) if they constantly receive negative feedback in a particular domain.

The original domains are not exhaustive and have been expanded upon to include domains such as relationships, sexual performance, and masculinity (Burkley, Wong, & Bell, 2016; Glowacka, Rosen, Vannier, & MacLellan, 2016; Knee, Canevello, Bush, & Cook, 2008). While new domains of contingency are being examined and the nature of these domains is thought to be stable over time, there is evidence suggesting these domains shift with changing life experiences (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). As discussed previously, these domains can also influence how a person behaves in different situations. For example, if someone derives their self-worth on appearance they are more likely to spend more time in the gym or deciding what they should wear (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). The nature of self-esteem is to serve as a barometer that allows individuals to assess their overall relational value to others, thus these specific domains may be small indicators concerned with
whether or not they are meeting the perceived standards of others (Crocker & Wolfe, 2001; Leary, Tambor, Terdal, & Downs, 1995).

**Sociometer Theory**

Sociometer theory provides a greater insight into the functioning of self-esteem and the awareness it brings to social cues for exclusion. This theory suggests that self-esteem is an adaptive mechanism that is sensitive to changes in relational value (Leary, Tambor, Terdal, & Downs, 1995; Leary & Baumeister, 2000). That is, the sociometer functions as a gauge that allows individuals to assess their relational value to others. Furthermore, these evaluations may motivate behaviors that maintain a minimum level of acceptance from others (Leary & Baumeister, 2000). People with low self-esteem overall tend to be more cognizant to potential declines in self-worth and exclusionary cues, while those with high self-esteem, still aware of these cues, may have a social buffer due to the more favorable views of themselves (Park, 2010; Zeigler-Hill, 2011).

Trait self-esteem influences the way in which a person will evaluate themselves globally with HSE being associated with more positive evaluations of the self and LSE association with poor evaluations of the self (Leary, Tambor, Terdal, & Downs, 1995; Leary & Baumeister, 2000). HSE reflects the perception that one is a valued person in groups or close relationships, however, LSE reflects a perception of higher possibilities for social exclusion (Leary & Baumeister, 2000). Those with a higher set point for their sociometer, or a higher trait self-esteem, tend to be more secure in their relationships with others and have a buffer against cues to social exclusion. The opposite is true for those with a lower set point for their sociometer. Those
with lower set points display self-protective behaviors and tend to anticipate rejection from others (Holden, Vrabel, & Zeigler-Hill, 2016).

As social belonging was crucial to survival, humans are able to monitor their environment for cues to exclusion and adjust behavior accordingly. This behavior serves to maintain or protect threatened feelings of self-worth. The sociometer view of self-esteem would suggest that people are more sensitive to negative evaluations, thus motivating behavior to bolster or maintain their worth within the personally relevant domains. While self-esteem influences how someone evaluates their worth as a person in relation to others and these evaluations elicit self-enhancing or self-protective behaviors, little attention has been given to the motivational systems involved. Previous literature states that individuals’ reactions are moderated by the contingent domains of self-worth (e.g., Crocker, Sommers, & Luhtanen, 2002; Crocker, Karpinski, Quinn, & Chase, 2003; Park & Crocker, 2008). This research, however, fails to understand the actual motivational systems at work. Approach-avoidance temperament allows for the understanding of why certain individuals choose to engage in behaviors that serve to protect or maintain self-esteem (Park, 2010; Park, Crocker, & Kiefer, 2007).

**Goal Directed Behavior**

**Approach and Avoidance Temperament**

There are two broad categorizations of goals: approach and avoidance (Elliot, 2008). These two particular types of goals have a lengthy history, which dates to the Greek philosophers and spans across multiple disciplines (Elliot, 2008). Approach and avoidance temperaments are present in across species and have an adaptive function as they move organisms toward positive stimuli and distance them from harmful stimuli (Elliot & Thrash, 2010). Approach temperaments
are conceptualized as a propensity to be vigilant to real or perceived positive stimuli (i.e., rewards, reward sensitive), whereas an avoidance temperament is the proclivity to be sensitive to negative stimuli (i.e., punishment, risk averse; Elliot & Thrash, 2010).

Individuals with contingent self-esteem may be drawn to environments or situations wherein they will be praised, and this may be particularly true for an individual with an approach temperament. For example, an individual who derives their worth from being academically competent may remain in an academic setting if they continuously thrive in such an environment. However, this type of behavior does come at a risk for the individual, because as they continue their education, the opportunity for praise may lessen, thus the individual may take pride in their successes, but deny any involvement in their own failures (i.e., “that test was unfair”; Kernis, 2003; Park, 2010). The combination of the approach temperament and contingent self-esteem may ultimately come at a cost and may lead to negative self-evaluations in the absence of praise. A person with an approach temperament may also show increased investment in proving themselves competent following a threat (Park, Crocker, & Keifer, 2007). Similarly, instead of disengaging from a threatened domain, such as academic competence, individuals with HSE demonstrated a slight increase in state self-esteem following a failure, which could be interpreted as an increased motivation to protect their worth (reflecting an approach motivation; Park, 2010).

Avoidance temperaments are characterized by the aversion to potential risks, which in turn motivates behavior away from undesirable outcomes (i.e., punishment, social exclusion; Elliot, 1999). For example, if an individual derives their sense of worth from doing well in academics, they might avoid situations that are prone to elicit negative evaluations (i.e., taking a difficult class). The negative evaluation of their appearance may lead the individual to disengage
or psychologically distance themselves from this domain. Threats to academic-contingent self-esteem combined with LSE levels have been shown to decrease individuals’ motivation to appear academically competent to their peers (Park, Crocker, & Kiefer, 2007). Individuals who perceive a threat in a contingent domain combined with low levels of self-esteem may want to distance themselves from the domain to protect themselves from further threats to their self-esteem (Park, 2010). This type of behavior reflects an avoidance motivation in which the person tries to place distance or disengage from situations that are prone to excessive risk (Elliot & Thrash, 2010).

Approach-avoidance motivations, not only seem to have a link to self-esteem level, but are also predictive of individual goal pursuits following a self-threat. Those with high trait self-esteem were more likely than those with low trait self-esteem to adopt approach-motivated goals (Park, 2010). Self-evaluations following threats to contingent self-esteem may motivate specific types of behaviors that are guided by whether the individual has an approach or avoidance motivation. Individuals with an approach motivation should then be more likely to continue deriving self-worth from domains in which they feel valued by others. Those with an avoidance motivation, however, may be likely to disengage or shift their focus to another domain if presented with information that elicits a negative self-evaluation. It is the negative self-evaluations that the person with an avoidance motivation is trying to avoid. They may do this by shifting their focus from the contingent domain that is being threatened as a means to prevent further damage to their self-worth.
Summary

Previous research strictly considered trait self-esteem with the omission of fluctuations that occur throughout a person’s day, or how their feelings of self-worth were constructed. (e.g. Brown & Marshall, 2006; Park & Crocker, 2005; Rosenberg, 1965; Shavelson, Hubner, & Stanton, 1976). More recent research began to parse out the nuances in esteem and look at its function in maintaining relationships with others (e.g. Crocker & Wolfe, 2001; Crocker, Luhtanen, Cooper, & Bouvrette, 2003; Jordan & Zeigler-Hill, 2013; Kernis, 2003). Models of self-esteem are now more nuanced than previously believed, with the idea that individuals derive their self-worth from various domains (Crocker & Wolfe, 2001). These domain-specific evaluations have been shown to relate to fluctuations in state self-esteem and the individual’s affect following feedback (Crocker, Sommers, & Luhtanen, 2002). Not only does feedback in contingent domains evoke self-evaluations, but these evaluations can lead the person to behave in ways to protect or maintain their sense of worth. The particular behaviors that the individual engages in may be further moderated by their propensity for approach or avoidance motivations (Park, 2010).

The nuances of self-esteem may illuminate a distinct relationship with motivational temperaments. More specifically, the type of motivational temperament adopted by someone may in part be affected by their self-esteem. For example, if an individual has low self-esteem and has a propensity to believe that they will be rejected, the person may adopt an avoidance motivation to lessen the likelihood of actual rejection from others.

Early research on self-esteem considered trait self-esteem, while ignoring other facets of self-esteem (James, 1890; Mecca, Smelser, & Vasoconcellos, 1989; Rosenberg, 1965). Since then, approaches to self-esteem have been refined to include the fragility of self-esteem, and
what constitutes optimum levels of self-esteem. (Jordan & Zeigler-Hill, 2013; Kernis, 2003; Kernis, 2005). From this research came the concept of contingent self-esteem (Jordan & Zeigler-Hill, 2013). Contingent self-esteem research began to suggest that individuals derived their self-worth from various domains (Crocker & Wolfe, 2001). These various domains were found to influence behavior based off personal evaluations of one’s worth following feedback (Crocker, Sommers, & Luhtanen, 2002; Park & Crocker, 2008).

Self-esteem’s function is understood as the sociometer, which posits that self-esteem serves an adaptive function for monitoring the environment for cues of a person's social or relational value (Leary, Tambor, Terdal, & Downs, 1995). The culmination of research on self-esteem as a monitor for social cues suggests that self-esteem is not something to be thought of as simply high or low, but as a strong driving force for behaviors thought to maintain self-esteem, particularly in areas individuals view as crucial to their sense of self-worth. The self-evaluations and the behavior that these evaluations elicited is similar to approach-avoidance motivation, in that individuals strive to succeed and avoid failures in contingent domains of self-worth.

Approach-avoidance motivations are motivational distinctions involving positive and negative evaluations of stimuli in the environment (Elliot & Thrash, 2010). The research on this dichotomy indicates that an approach motivation is associated with positively evaluated stimuli, whereas an avoidance motivation is associated with negatively evaluated stimuli (Elliot, 1999; Elliot & Thrash, 2010). Taken together, these theoretical backgrounds converge to raise the question of the possibility that contingent domains of self-worth may be contextually bound. Furthermore, shifts in contingencies of self-worth may be further influenced by approach-avoidance motivation. This would mean that the domains are not a trait that is static, but that the
domains are dynamic and change based off the environment. This change may cause individuals
to shift focus of contingent domains depending on the type of motivation the individual adopts.
CHAPTER THREE: METHOD

Participants and Design

To estimate minimum sample size, I conducted a power analyses using G*Power 3.1.9.2 (Faul, Erdfelder, Lang, & Buchner, 2007). Using the parameters of $\alpha = .05$, a power of .95, and a small to medium effect size of 0.2, the analysis suggested a minimum sample size of 150 participants distributed across three conditions. We collected 122 participants due to monetary constraints. All participants were over 18 and registered workers on Amazon.com’s Mechanical Turk (MTurk). MTurk workers completed the experiment in approximately 30 minutes. Upon completion, workers were compensated for their time ($1.60). Participants were randomly assigned to one of three conditions (positive feedback, negative feedback, and no feedback).

Measures

Contingencies of Self-Worth. Domains of self-worth were assessed using Crocker, Luhtanen, Cooper, & Bouvrette’s (2003) Contingencies of Self-Worth Scale (CSWS). The instrument was administered pre-test and post-test to measure changes in participants’ contingent domains of self-worth. The CSWS consists of 35 items compromising 7 subscales, each containing 5 questions. The subscales are composed of seven separate domains of self-worth which are approval of other’s ($\alpha = .81$), competition ($\alpha = .88$), academic competence ($\alpha = .79$), appearance ($\alpha = .83$), family support ($\alpha = .84$), virtue ($\alpha = .83$), and God’s love ($\alpha = .96$). Participants rated each of the questions on a 7-point scale (1- strongly disagree, 7- strongly agree). The subscale of interest is the approval of other’s domain which has been shown to respond to feedback from others (Park & Crocker, 2008). An example statement from this
subscale reads, “My self-esteem depends on the opinion others hold of me.” See Appendix A for full scale.

**Rosenberg Self-Esteem Scale.** Participants’ trait self-esteem was assessed using Rosenberg’s (1965) Self-Esteem Scale (RSES). The scale consists of 10 items that are measured on a 4-point scale (1- *strongly disagree*, 4- *strongly agree*). Example statements from this scale read, “I feel that I have a number of good qualities.” The scale has good reliability ($\alpha = .88$; Blascovich & Tomaka, 1991). See Appendix B for full scale.

**Approach-Avoidance Temperament Questionnaire.** Participants’ propensity to adopt an approach or avoidance motivation was assessed using Elliot and Thrash’s (2010) Approach-Avoidance Temperament Questionnaire (ATQ). The questionnaire is comprised of 12 items and is organized into two subscales. The subscales each contain six questions and encompass approach and avoidance motivations. The subscales have good reliability $\alpha = .74$ and $\alpha = .81$, respectively. An example item on the approach subscale reads, “Thinking about things I want really energizes me.” An example item on the avoidance subscale reads, “It doesn’t take much to make me worry.” See Appendix C for full scale.

**Positive and Negative Affect Scale.** Participants completed Watson, Clark, and Tellegen’s (1988) Positive and Negative Affect Scale (PANAS). This scale is used to measure the level of positive and negative affect in individuals. Positive affect reflects the extent to which a person feels enthusiastic, active, and alert, whereas negative affect is characterized by subjective distress and unpleasurable engagement (Watson, Clark, & Tellegen, 1988). Participants will rank a list of words on a 5-point scale (1- *very slightly or not at all*, 5- *extremely*). Example words on the PANAS are “interested,” “scared,” “hostile,” and “inspired.”
The scale has good internal reliability for both positive and negative affect subscales ($\alpha = .85$ and $\alpha = .91$). See Appendix D for full scale.

**Dummy Personality Inventory.** This personality inventory was used as a mask for the participants. The participants rated how much they believe each individual adjective on the list relates to their personality. The bogus inventory consisted of 20 characteristics. Participants rated themselves for each characteristic on a 5-point scale (1-	extit{strongly disagree}, 5-	extit{strongly agree}). This scale was not used in analyses, but participants were led to believe that their partner saw their ratings in order to make a judgement of their personality. See Appendix E for full scale.

**Procedure**

The procedure for my study closely followed Park and Crocker (2008). At the beginning of the experiment participants were told:

“You will be participating in a study about first impressions in an online setting. You will complete a series of personality surveys to get a snapshot of who you are. Your information on the first set of questionnaires will be kept completely confidential. It is very important that you be as honest as possible.”

After reading the prompt participants were directed to a set of demographic questions. Upon completion, participants completed the PANAS, CSWS, ATQ, and RSES in a random order. The participants were led to believe that after the first set of questionnaires they were paired with a partner who would also complete the study. Once the participants finished the series of questionnaires they were prompted with the following directions:

“You will now complete a personality survey and list up to 5 hobbies that you enjoy.

Your responses will be shared with your partner. Your partner’s responses will be shared
with you. Please answer these questions honestly so your partner can get an accurate
depiction of you and your hobbies.”

Participants then completed the dummy personality inventory and listed up to five
hobbies they enjoy to create a believable illustration of their personality (see Appendix E). After
submitting their responses on the personality inventory and listing up to five hobbies,
participants in all conditions were presented with an attention check (see Appendix G).
Following these questionnaires, participants were presented with their bogus partner’s responses
on the second set of questionnaires. Participants in the control condition were prompted with the
following instructions:

“Now that you have just seen a snapshot of your partner, we are interested in knowing
your impressions of them. Your responses on this impressions questionnaire will be kept
completely confidential and will never be disclosed to the other student. It is very
important to us that you be as honest as possible in your responses. Please read the
following items below and rate your perceptions of the person you just received
information on.”

Participants in the control condition did not receive any feedback from their bogus
partner. Following evaluation of the bogus partner, the participants in the control condition were
directed to complete the SCSWS and a few questions about their participation in the research.
After submission of the final surveys participants were debriefed, thanked, and compensated for
their time.

Like the control condition, participants in the positive and negative feedback conditions
were presented with their bogus partner’s results on the personality inventory and their list of
hobbies. When participants finished reading their partner’s results they were given the following instructions:

“Now that you have just seen a snapshot of your partner, we are interested in knowing your impressions of them. Your responses on this impressions questionnaire will be shared with your partner, and they will also share their responses with you. It is very important to us that you be as honest as possible in your responses. Please read the following items below and rate your perceptions of the person you received information on.”

Participants in the feedback conditions were then asked to rate their partner on seven characteristics that were anchored between positive and negative interpersonal traits: unfriendly vs. friendly, uninteresting vs. interesting, awkward vs. poised, shy vs. outgoing, dull vs. charismatic, cold vs. warm, unlikeable vs. likeable (Park & Crocker, 2008). Individuals submitted these items and received feedback from their partner on the same characteristics. The ratings were anchored with “1” having the negative version of the trait and “7” being a positive version of the trait. Participants in the negative feedback condition received a “4” on friendly, outgoing, warm, and likeable, a “3” on interesting and charismatic, and a “2” on poised. Those in the positive feedback condition received a “4” on friendly, outgoing, warm, and likeable, a “5” on interesting and charismatic, and a “6” on poised. This feedback is based on Park & Crocker (2008) and past literature that has shown self-esteem is most sensitive to interpersonal evaluations that are moderate and not explicitly negative (Leary, Haupt, Strausser, & Chokel, 1998).
Participants in the feedback conditions were then presented with the feedback from the false partner. After seeing the ratings from the bogus partner, participants received the following instructions:

“Now that you have seen your partner’s impression of you, we now ask that you complete the final personality survey and a brief questionnaire about how you felt about the research you just completed.”

The participants in the feedback conditions then completed the SCSWS and questions concerning their involvement with the study. The questions read, “What did you believe the purpose of the study was,” and “Please rate how serious you took the experiment.” The first question was open ended and the second question was on a 7-point scale with 1 being not serious at all to 7 being very seriously. Participants were debriefed, thanked, and compensated for their time.
CHAPTER FOUR: RESULTS

Preliminary Analyses

The study initially included 122 participants as opposed to the projected 150 participants due to monetary constraints. To be included in analyses participants had to pass two out of three attention checks (see Appendix G) and have at least a six out of seven on how serious they took their participation in the study (see Appendix H). Twenty participants were excluded from the analyses. After excluding those participants who did not meet any of these criteria there were 102 participants left (61 males, 39 females, 2 other). Of the 102 participants the average age of participants was 33.84 and they described themselves as White (78.4%), Black (7.8%), Asian (6.9%), Latinx (3.9%), and other (2.9%).

Correlations

To begin analyses a series of bivariate correlations for each of the variables were conducted. There was a significant positive correlation between pre-test scores in the other’s approval domain and the post-scores on the approval of other’s domain \( (r = .83, p < .001) \). Avoidance motivation was positively correlated with initial scores on the other’s approval domain \( (r = .37, p < .001) \). Additionally, avoidance motivation was also correlated to other’s approval scores \( (r = .39, p < .001) \). Results further revealed a negative correlation with self-esteem level and avoidance motivation, such that those with higher self-esteem were less likely to be avoidance motivated \( (r = -.38, p < .001) \). Self-esteem level was found to have a negative correlation with the other’s approval contingency, thus those with higher reported levels of self-esteem were less likely to derive their worth in the other’s approval domain \( (r = -.22, p = .05) \).
Table 1

*Intercorrelations and Descriptive Statistics for Self-Esteem, Approach-Avoidance Motivation, and Other’s Approval*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self-Esteem</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Approach Motivation</td>
<td>.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Avoidance Motivation</td>
<td>-.38***</td>
<td>-.10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Other’s Approval Pre-Test</td>
<td>-.22*</td>
<td>-.11</td>
<td>-.37***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Other’s Approval Post-Test</td>
<td>-.17</td>
<td>.02</td>
<td>.39***</td>
<td>.83***</td>
<td></td>
</tr>
</tbody>
</table>

*M* | 3.15 | 5.64 | 4.56 | 3.79 | 3.69 |
*SD* | 0.21 | 1.64 | 2.14 | 1.28 | 1.68 |

*p < .05; **p < .01; ***p < .001

To test the hypotheses, two dummy variables were created. The codes were as follows: the positive feedback condition was 0,1, the no feedback condition was 1,0, and the negative feedback condition was 0,0. Thus, the negative feedback condition was used as the reference condition. Next, interaction terms were computed for each of the variables and the two dummy coded variables. Finally, the post-approval of other’s measure was regressed onto the pre-approval of other’s score, self-esteem, approach motivation, avoidance motivation, all two-way interactions, and all three-way interactions. In keeping with the hypothesis, a significant interaction was expected between the type of motivation, self-esteem level, and the condition the person was assigned.

As can be seen in Table 2, the regression analyses revealed two main effects for trait level approval of others and avoidance motivation. No interaction effects emerged from the analyses. Additional analyses were conducted with simpler models to address possible issues with the design being underpowered, but no interaction effects emerged. This did not support our
hypothesis about the possible interactions between self-esteem, type of motivation, and condition. The regression analyses revealed that avoidance motivation significantly predicted state approval of other’s ($\beta = .12$, $p = .035$, $f^2 = 2.57$) regardless of the type of feedback received. This finding mirrors what was observed in the bivariate correlations. Avoidance motivation, while not predicting change in the contingent domain of self-worth, revealed that avoidance motivation does play a role in contingent domains of self-worth, specifically the approval of other’s domain.

Table 2

Regressions of Post-Test Contingency on Self-Esteem, Approach-Avoidance, and Trait Contingency

<table>
<thead>
<tr>
<th>Model</th>
<th>$R^2$</th>
<th>$f^2$</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Esteem</td>
<td>.72***</td>
<td>2.57</td>
<td>.05</td>
</tr>
<tr>
<td>Approach Motivation</td>
<td>.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoidance Motivation</td>
<td>.12*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other’s Approval</td>
<td>.81***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05; **p < .01; ***p < .001
CHAPTER FIVE: DISCUSSION

As suggested by sociometer theory, humans have an evolutionary need to feel accepted by others (Leary & Baumeister, 2000). As we receive signals of inclusion or exclusion, our self-esteem level is affected. However, self-esteem is more nuanced than just the dichotomous high-low distinctions, as individuals derive their feelings of self-worth from particular domains. The contingent domains of self-worth motivate behavior to protect and maintain feelings of worth in distinct life domains (i.e., approval of other’s). Despite evidence that contingent domains are relatively stable, sociometer theory suggests that maintaining feelings of worth is one of the primary goals for humans. Thus, suggesting that contingent domains are susceptible to feedback and individuals may shift the importance of threatened domains to protect overall feelings of worth.

This experiment tested two hypotheses. The first hypothesis was that individuals with an avoidance motivation and low self-esteem will shift attention away from a domain that receives negative feedback. The second hypothesis was that those with an approach motivation and high self-esteem will increase focus on a domain after receiving negative and positive feedback. The hypotheses were not fully supported by the findings. No interactions emerged between self-esteem, motivation, and condition. This suggests that the domains may remain stable even in the face of feedback, but that avoidance motivation may be related to external contingencies.

The results did reveal that avoidance motivation was negatively related to self-esteem level. This relationship aligns with past research suggesting that individuals with lower self-esteem tend to adopt avoidance motives as a way to eschew negative evaluations from others.
This means an individual with low self-esteem may be more likely to avoid situations in which their sense of worth could potentially be threatened. The results further supported previous work suggesting that basing one’s worth on the approval of other’s adversely impacts self-esteem level. Suggesting that an individual with approval contingent self-esteem is likely to also have lower levels of self-esteem as a result for needing the reassurance from others about their worth, which they may or may not receive (Crocker & Wolfe, 2001; Crocker, Luhtanen, Cooper, & Bouvrette, 2003). This relationship is evidence that deriving self-worth from external sources has a adversely affects self-esteem level. Linking self constructs to the type of motivation adopted shows that self-esteem does indeed play a role in the interpersonal functioning of the individual (Park, 2010). Furthermore, the results revealed avoidance motivation’s negative relationship with the approval of others contingent domain. The relationship between avoidance motivation and ACSE was not dependent upon the type of feedback received, but reveals an underlying motivational process for the possible instability of contingen domains of self-worth. External domains of self-worth, such as approval contingent self-worth, may be more prone to feedback and are negatively associated with level of self-esteem (Crocker & Wolfe, 2001). The results further support this idea and reveal the underlying motivational temperament that may guide behavior in these particular domains. For example, if someone has low self-esteem and bases their self-worth on an external source, such as other’s approval, they may find it difficult to engage in social situations where rejection may be more likely or the possibility of success is low. This complex relationship would further illuminate why external contingencies or domains that depend on the approval, attitudes, or behavior of other people are difficult to satisfy (Crocker & Wolfe, 2001). Overall, contingent domains of self-worth seem to be related to
motivational temperaments. Specifically, avoidance motivation is predictive of shifts in the approval of other’s domain.

While the hypotheses were partially supported by the data, the results indicate that approach-avoidance motivation may play a role in how individuals respond to feedback in contingent domains of self-worth. Understanding the role of motivation in contingent domains of self-worth research can further understand how these contingent domains impact overall feelings of self-esteem. Generally, the results indicate the need to evade adverse stimuli may play a crucial role in self-esteem maintenance. Research on self-esteem proposes an adaptive function of self-esteem is to monitor the social environment for cues to social exclusion. Results from this study support the idea of a sociometer by providing evidence that individuals more likely to pay special attention to adverse stimuli was predictive of state contingent self-worth.
Limitations and Future Directions

There are some important limitations to this experiment. First, it is not clear that the feedback the participant received had an effect on whether or not the individual’s focus on the approval of other’s domain changed. This, in part, could be due to the lack of experimental realism in an online setting. The original manipulation used for this type of experiment was conducted in a one-on-one laboratory setting. While the procedure was closely followed, the difference in modality may have impacted the results of the study.

Second, some participants had suspicion that the study itself was concerned with how the individual views themselves. This suspicion of the purpose of the study could have led the person to discredit the feedback they received from the perceived partner. Amazon’s Mechanical Turk is widely used in experiments involving feedback from perceived partners, possibly furthering the likelihood that the participants did not feel as if the feedback was indeed indicative of someone’s opinion. While it seems that MTurk has issues for psychological research it is still a widely used platform for conducting meaningful and insightful studies on human behavior. The site has been shown to provide insightful findings and has the elements necessary to complete a research project (Buhrmester, Kwang, & Gosling, 2011).

Furthermore, it is possible that the experimental design of this project was not sufficient in capturing true changes in self-worth. It is possible that participants changes in contigent domains of self-worth are difficult to capture as they may fluctuate, meaning that on certain days they are more contingent on certain domains than others, thus washing out possible effects from the manipulations. It could be valuable to create a longitudinal study in which participants come into the lab and receive feedback and are then followed for a week to see if there are fluctuations in the emphasis on certain domains as opposed to others. Future studies could also target this
issue by tracking individuals over many years to see how changes in life situations can impact the domains in which individuals derive their sense of self-worth.

I believe it would be valuable for future research to continue examining the effects of negative feedback from a person’s environment that are targeted toward particular domains of self-worth. Evidence from the current research suggests that approach-avoidance motivation, specifically avoidance motivation, was able to predict an individual basing their self-worth in the approval of others domain, suggesting that averse stimuli are indeed likely to grab someone’s attention if their self-worth is based externally. Furthermore, previous literature suggests that avoidance motivation is linked with lower levels of self-esteem making these individuals especially sensitive to cues of social exclusion. Research paradigms concerning contingent domains of self-worth should focus on the possibility of using more inconspicuous forms of feedback in contingent domains (i.e., performance on an academic task). This type of feedback could serve to negate receiving feedback from a partner by having objective numbers indicating to the participants that they performed worse than the average person on the task at hand (i.e., intelligence test).
References


Elliot, A.J., & Thrash, T.M. (2010). Approach and avoidance temperament as basic dimensions of personality. *Journal of Personality, 78*, 865-906. DOI: 10.1111/j.1467-6494.2010.00636.x


DOI:10.1111/j.1467-6494.2005.00359.x


Appendix A: Contingencies of Self-Worth Scale

Please respond to each of the following statements by clicking your answer using the scale “1 = Strongly disagree” to “7 = Strongly agree.” If you haven’t experienced the situation described in a particular situation, please answer to how you think you would feel if the situation occurred.

1. When I think I look attractive, I feel good about myself.
2. My self-worth is based on God’s love.
3. I feel worthwhile when I perform better than others on a task or skill.
4. My self-esteem is unrelated to how I feel about the way my body looks. *
5. Doing something I know is wrong makes me lose my self-respect.
6. I don’t care if other people have a negative opinion about me. *
7. Knowing that my family members love me makes me feel good about myself.
8. I feel worthwhile when I have God’s love.
9. I can’t respect myself if others don’t respect me.
10. My self-worth is not influenced by the quality of my relationships with my family members. *
11. Whenever I follow my moral principles, my sense of self-respect gets a boost.
12. Knowing that I am better than others on a task raises my self-esteem.
13. My opinion about myself isn’t tied to how well I do in school. *
14. I couldn’t respect myself if I didn’t live up to a moral code.

15. I don’t care what other people think of me. *

16. When my family members are proud of me, my sense of self-worth increases.

17. My self-esteem is influenced by how attractive I think my face or facial features are.

18. My self-esteem would suffer if I didn’t have God’s love.


20. Doing better than others gives me a sense of self-respect.


22. I feel better about myself when I know I am doing good academically.

23. What others think of me has no effect on what I think about myself. *

24. When I don’t feel loved by my family, my self-esteem goes down.

25. My self-worth is affected by how well I do when I am competing with others.

26. My self-esteem goes up when I feel that God loves me.

27. My self-esteem is influenced by my academic performance.

28. My self-esteem would suffer if I did something unethical.

29. It is important to my self-respect that I have a family that cares about me.

30. My self-esteem does not depend on whether or not I feel attractive. *

31. When I think that I’m disobeying God, I feel bad about myself.

32. My self-worth is influenced by how well I do on competitive tasks.

33. I feel bad about myself whenever my academic performance is lacking.

34. My self-esteem depends on whether or not I follow my moral/ethical principles.

35. My self-esteem depends on the opinions others hold of me.

* = reverse scored item
Appendix B: Rosenberg Self-Esteem Scale

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

1 2 3 4
Strongly Agree Agree Disagree Strongly Disagree

1. On the whole, I am satisfied with myself.
2. At times I think I am no good at all. *
3. I feel that I have a number of good qualities.
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 certainly feel useless at times. *
7. I feel that I’m a person of worth, at least on an equal plane with others.
8. I wish I could have more respect for myself. *
9. All in all, I am inclined to feel that I am a failure. *
10. I take a positive attitude toward myself.

*= reverse scored item
Appendix C: Approach-Avoidance Temperament Scale

Please indicate how much you agree or disagree with each of the following statements by clicking one of the responses provided. All of your responses are anonymous and confidential.

Please select numbers according to the following scale.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Neither</td>
<td>Disagree</td>
<td>Agree nor</td>
<td>Agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strongly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. By nature, I am a very nervous person.
2. Thinking about the things I really want energizes me.
3. It doesn’t take much to make me worry.
4. When I see an opportunity for something I like, I immediately get excited.
5. It doesn’t take a lot to get me excited and motivated.
6. I feel anxiety and fear very deeply.
7. I react very strongly to bad experiences.
8. I’m always on the lookout for positive opportunities and experiences.
9. When it looks like something bad could happen, I have a strong urge to escape.
10. When good things happen to me, it affects me very strongly.
11. When I want something, I feel a strong desire to go after it.
12. It is easy for me to imagine bad things that might happen to me.
Appendix D: Positive and Negative Affect Scale

This scale consists of a number of words that describe feelings and emotions. Read each item and then mark the appropriate answer from the scale provided. Indicate to what extent you feel this way right now, that is, at the present moment. Use the following scale to record your answers.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very slightly or not at all</td>
<td>A little</td>
<td>Moderately</td>
<td>Quite a bit</td>
<td>Extremely</td>
</tr>
</tbody>
</table>

- Interested
- Distressed
- Excited
- Upset
- Strong
- Guilty
- Scared
- Hostile
- Enthusiastic
- Proud
- Irritable
- Alert
- Ashamed
- Inspired
- Nervous
- Determined
- Attentive
- Jittery
- Active
- Afraid
Appendix E: Dummy Personality Inventory

Please indicate on a scale of 1 (Not at all true) to 5 (very true) how well each adjective or statement best describes you. These responses will be recorded and shared with your partner. There will be no identifying information linked to the shared responses.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Not at all true</th>
<th>Neutral</th>
<th>Very True</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-reliant</td>
<td>Cheerful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moody</td>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conscientious</td>
<td>Athletic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affectionate</td>
<td>Theatrical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assertive</td>
<td>Happy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loyal</td>
<td>Unpredictable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reliable</td>
<td>Sympathetic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jealous</td>
<td>Has leadership abilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensitive to the needs of others</td>
<td>Understanding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compassionate</td>
<td>Sincere</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix F: List of Hobbies

In the space provided please list up to five (5) hobbies that are important to you. The responses below will be recorded and shared with your partner. There will be no identifying information linked to the shared responses.

1.

2.

3.

4.

5.
Appendix G: Attention Check Questions

“If you are reading this, please respond Strongly Disagree”

“If you are reading this, please select Strongly Agree.”

“Please mark this with a 4.”
Appendix H: Purpose and Seriousness

“What did you believe the purpose of this study was?”

“Please rate how serious you took the experiment.”

(1 = Not all serious, 7 = Completely Serious)