

THE DEVELOPMENT OF THE RA-VING SELF-TRUST INSTRUMENT (RSTI)

by

ALISSA TERTICHNY

(Under the Direction of C. Missy Moore)

ABSTRACT

The purpose of this study was to begin developing and validating an instrument to measure self-trust in adults. Brown's (2015, 2017, 2018, 2021) model of self-trust served as the theoretical framework and Crocker and Algina's (2008) application of classical test theory guided this instrument development process. Confirmatory factor analysis was used to examine factor structure. Evidence of reliability and validity were explored. A confirmatory factor analysis performed on the sample (n = 261) revealed that the five-factors from the exploratory factor analysis demonstrated a largely adequate fit to the data, and likelihood ratio tests indicated that the five-factor model provided the best fit to the data compared to a three-factor and four-factor model. The five factors consisted of 26 items that appeared to capture the variables of Reliability-Accountability (RA), Vault (V), Integrity (I), Nonjudgment (N), and Generosity (G). The RA-VING Self-Trust Instrument (RSTI) demonstrated excellent internal consistency according to Cronbach's alphas and generally acceptable internal consistency according to inter-item correlations. Convergent and discriminant validity of the RSTI was adequate at the factor-level. Implications and recommendations for practitioners, counselor development, and research are provided.

INDEX WORDS: self-trust, instrument development, confirmatory factor analysis,
classical test theory

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by

ALISSA TERTICHNY

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by

ALISSA TERTICHNY

Major Professor: C. Missy Moore
Committee: Jolie Daigle
H. George McMahon

Electronic Version Approved:

Ron Walcott
Vice Provost for Graduate Education and Dean of the Graduate School
The University of Georgia
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DEDICATION

This dissertation is dedicated to my daughter, Natalee Fortune Tertichny.

If someone had told me a few years ago that I would write a dissertation while pregnant and defend shortly after the birth of my first child, I wouldn't have believed them or thought that I was capable of this. What I didn't know then was how this pregnancy, transition to motherhood, and entire dissertation process would consecutively illuminate and enliven my research on self-trust through these lived experiences.

To be sure, writing this dissertation, pregnancy, and becoming a parent have been parallel labors of love. These experiences have made me doubt myself, humbled me, and shown me that I am stronger than I knew before. They have allowed me to work, sacrifice, and surrender to a meaningful path, without any certainty of the outcome. The irony is that's what self-trust is all about. Self-trust is a pinnacle of our relationship with ourselves. It is brave to learn to trust ourselves, and that means it can be scary, too.

Natalee, becoming your mom has been one of the greatest self-trust adventures of my life. No doubt, parenting you will continue to call me back to this work, over and over again. It is my responsibility to parent you in a way that allows the flourishing of your trust in yourself. It is my deep hope that my love for you and connection with you will give you a template for your own self-trust journey: a secure base to discover who you are, the curiosity to explore what you want to do with this gorgeous life, a soft landing place when you fall, the freedom to be yourself completely, the courage to keep risking, and to know, inherently, that you are enough.

Boundaries (B)

When you're little, I'll set boundaries for you. I will do my best to offer you choices, encourage your autonomy, and support your self-advocacy, within limits. As you grow, hone a keen awareness of your internal voice and listen to its insight. Trust your gut. You are wise. No one knows you better than you, not even me. No matter what anyone says, there is nothing you should be, do, or tolerate other than what is true for you and what makes your heart feel whole.

Reliability (R)

Believe in yourself. Do what you say you will do. Set attainable goals and reach them. To do these things, you will need an awareness of what you are capable of, what your growth edges are, and what support/ resources you need. This also means knowing when you are being asked to do something that is not possible for you at the time. It is better to say "no" than to say "yes" and not mean it. I will keep my promises to you.

Accountability (A)

Despite your best intentions, you won't always be able to follow-through on your commitments. You will say and do things that hurt yourself and others. When this happens, take ownership. Apologize when you're wrong. When you disappoint yourself, recognize the problem and how you would like to do better the next time. This gives you an opportunity to improve and move forward. I will make mistakes when I am parenting you. When this happens, I will be open with you about my mistakes and seek to make amends with you.

Vault (V)

Learn when to guard your heart and when to allow yourself to be seen by people who have earned the right to know you. Develop the skill to know the difference. Know that I'll be here to hold your stories with you when you need me to.

Integrity (I)

Our core values serve as guideposts for living our lives authentically. You will have opportunities to discover the values that you hold dearest and use these to help you make decisions about what to do and how to show up in life. This is really about congruence and holding yourself to a standard that you are proud of. I am excited to learn what makes you tick.

Nonjudgement (N)

It's OK to ask for help. You don't have to have all of the answers. You don't have to figure things out on your own. We all need support. When people truly love us, they love all of us: not just the good parts, but when we're hurting, too. Reaching out is a sign of strength, not weakness. You don't have to be OK for me. I'm here for the good, bad, and ugly with you.

Generosity (G)

You will fail, make mistakes, get rejected, lose, and have your heart broken. I wish I could shield you from these things, but they are part of the human experience and they have important lessons to teach you. When you are in these hard moments, be gentle and kind with yourself. When you need an example of how to do this, know that you will always have access to my empathy, tenderness, and unconditional love. You are imperfect and worthy, period.

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Let's be brave together.

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Dr. Mom

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CHAPTER 1

INTRODUCTION

Trust

The construct of trust has been studied across disciplines, including psychology, sociology, philosophy, management, political science, criminal justice, law, healthcare, public administration, cross-cultural studies, business administration, statistics, and economics (Gefen, 2013; Shockley et al., 2016). While there is no universally accepted definition of trust (Mühl, 2014), an emerging consensus amongst trust researchers supports an integrative definition of trust as a “psychological state of willingness to be vulnerable based on the trustor’s positive expectations of the trustee” (PytlikZillig & Kimbrough, 2016, p. 18). Trust can be applied to people, social groups, organizations, authorities, and marketplaces (de Fine Licht & Brülde, 2021; Gefen, 2013).

Trust is known to be supremely important in human development, wellbeing, interpersonal functioning, and decision-making (Erikson, 1968; Gefen, 2013, Skripkina et al., 2020). The establishment of basic trust in caregivers, and subsequently, the self, is the foundation of psychosocial development (Erikson, 1968), psychological security, and psychological health (Skripkina et al., 2020). Trustworthiness is a mediator for human relationships. Trusting involves risk-taking, a decision which involves cognition, emotion, and neurobiology (Gefen, 2013).

Trust: Cognitive, Emotional, and Neurobiological

Trust is an interaction of cognitive, emotional, and neurobiological process (Komiak, 2013; Riedl, 2013). From a cognitive perspective, trust is a rational choice that the trustor makes based on beliefs regarding the characteristics attributed to the trustee. This choice involves weighing the advantages and disadvantages of trusting, based on the trustor's value system, to determine if the trustee has the necessary qualities (e.g., integrity, competence) deemed to be expectedly reliable. Emotional trust refers to the trustor's sense of security and comfort in relying on the trustee, based on initial affective impression of the trustee, emotional reaction to trustee, affective evaluation of beliefs about the trustee, intuition, and faith (Komiak, 2013).

From a neurobiological perspective, neural correlates and hormones related to trust have been identified. In endocrinal studies of trust, production of the neuroactive hormone oxytocin, associated with attachment and bonding, plays an important role in trusting. In the mental process of trusting, functional Magnetic Resonance Imaging (fMRI), was utilized to identify the association of the caudate nucleus in the striatum, a region of the brain associated with behavioral adaptations and the reward system, with trust (Riedl, 2013).

The cognitive, emotional, and neurobiological components of trust are indicative of a complex construct. Further, the general construct of trust can be divided into types of trust (e.g., organizational trust, interpersonal trust, and self-trust). The cognitive, emotional, and neurobiological components of trust play a role in each type of trust.

Types of Trust

Trust includes organizational trust, interpersonal trust, and self-trust (Mühl, 2014; Prelinger & Zimet, 1964). Organizational trust pertains to personal and public trust in organizations, involving trust in intraorganizational relationships, as well as organizational systems and processes (Mühl, 2014; Zucker, 1986). Interpersonal trust pertains to trust in others, while self-trust pertains to trust in oneself (Prelinger & Zimet, 1964). Importantly, interpersonal trust and self-trust, while distinct concepts, are inextricably linked (Brown, 2018; Danilova, 2019; Erikson, 1963; Goering, 2009; Govier, 1993; Sideroff & Angel, 2013; Skripkina et al., 2020; Wall, 2004). The bulk of conceptual and empirical literature on trust has focused on organizational and interpersonal trust.

The Importance of Self-Trust

Self-trust has been identified as playing an important role in early attachment and psychosocial development (Erikson, 1963), psychological security (Skripkina et al., 2020), successful functioning (Danilova, 2019), personal growth (Sideroff & Angel, 2013), and meaningful existence (Govier, 1993). Self-trust is necessary for worthiness and authenticity (Govier, 1993). Brown (2018) indicated self-trust as the foundation of trust with others. Brown (2017) identified that self-trust is critical for true belonging, defined as:

the spiritual practice of believing in and belonging to yourself so deeply that you can share your most authentic self with the world and find sacredness in both being a part of something and standing alone in the

wilderness. True belonging doesn't require you to change who you are; it requires you to be who you are. (p. 40).

Self-Trust in Adulthood

Adulthood extends from late teens until death. Adults who have successfully progressed through the psychosocial stages of development are expected to have developed self-trust, leading to positive outcomes, such as autonomy, strong sense of identity, and intimacy with others (Erikson, 1963). Adults who trust themselves are likely to experience wholeheartedness, true belonging, and trusting relationships (Brown, 2017, 2018). Protective factors of self-trust may include resistance to unreasonable social expectations and access to a supportive community, which foster one's ability to respond to failure without diminishing oneself (Goering, 2009).

During adulthood, individuals will inevitably have experiences that could impair self-trust. Brown (2015, 2018) posited that self-trust may be negatively impacted by failure, disappointments, and setbacks. When adults experience hurt, shame, or question their worthiness, self-trust is at risk (Brown, 2018). In adulthood, examples of possible self-trust breaches could include career problems, relationship issues, health concerns, mental health challenges, and trauma. For individuals who experienced difficult life circumstances in childhood and adolescence (e.g., inadequate living conditions, dysfunctional families, history of abuse, etc.), the consequences of deficient self-trust in adulthood may be more severe (Skripkina et al., 2020).

Consequences of Deficient Self-Trust

When self-trust is lacking, people may experience negative consequences. Insecurities caused by self-trust deficits prevent effective action and make a person

vulnerable to being manipulated and exploited by others (Govier, 1993). Broken self-trust causes a self-focused sense of betrayal and shame (Goering, 2009; Wall, 2004). Low self-trust is related to self-doubt (Danilova, 2019), the loss of autonomy (Goering, 2009), and personality disturbances (Skripkina et al., 2020).

Counselors Need to Understand Self-Trust

According to the American Counseling Association (ACA), counselors help clients address goals pertaining to mental health and wellness (2010). Adults choose to pursue counseling to address a variety of presenting concerns, such as relationship issues, interpersonal functioning, communication problems, anxiety, depression, anger management, stress, body image, self-esteem, trauma, grief, substance use, identity development, health concerns, self-injury, racial/ ethnic/ cultural concerns, etc. (Heafner et al., 2016; Pérez-Rojas et al., 2017). Given that trust is necessary for psychological health and interpersonal functioning (Skripkina et al., 2020), it would be beneficial for counselors to understand the role of self-trust related to the prevention, cause, and treatment of these presenting concerns. Understanding self-trust may illuminate mental health and wellness promotion for adults seeking counseling services.

Trust is fundamental to relationship with self and others (Wall, 2004). Counselors are highly likely to encounter clients impacted by presenting concerns related to self-trust. Incorporating self-trust development or repair in client treatment goals is likely to improve client relationships with self and others, which is a frequently desired outcome of counseling interventions (Walker & Peiffer, 1957). For those with self-trust deficits, psychocorrectional measures are effective for building an attitude of self-trust (Skripkina et al., 2020).

Measuring Self-Trust

The empirical investigation of self-trust is limited in the literature (Brothers, 1982; Danilova, 2019; Skripkina et al., 2020) and is almost nonexistent in counseling literature specifically. Instruments to measure self-trust are lacking, which may be a likely cause for the dearth of empirical investigation. The few self-trust instruments that exist (Brothers, 1982; Danilova, 2019; Skripkina et al., 2020; Wall, 2004) are deficient due to inadequate evidence of appropriate construct conceptualization, development procedures, and empirical-testing. These flaws indicate that a new instrument is needed (Kalkbrenner, 2021). To address these gaps, this study will be utilized to develop a measure of self-trust.

Measurement in Social Science

Measurement is fundamental for the acquisition of knowledge in the sciences. In social science, the origins of measurement were used for the purposes of assessing intellectual abilities, sensations, and mental illness. Over time, psychometrics has evolved to quantify a broad range of social and psychological phenomena (DeVellis, 2017).

Unlike physical sciences, in social science, theory often involves intangible, hypothetical phenomena. Concentration on measurement theory in social science was developed to address this unique challenge. Without tangible phenomena, theory plays a key role in social science instrumentation. Well-developed theories support the development of usable, valid, and reliable scales, which, in turn, can be utilized for further enlightenment of the phenomena of interest (DeVellis, 2017).

Theoretical Framework

Brown (2015, 2017, 2018, 2021) developed a model of trust and self-trust. According to Brown, the elements of trust and self-trust are boundaries, reliability, vault, integrity, nonjudgement, and generosity (BRAVING, 2015, 2017, 2018, 2021). Definitions of these elements are provided later in this chapter. These elements emerged from Brown's (2015) grounded theory research. The BRAVING model operationalizes self-trust. Brown's (2015, 2017, 2018, 2021) BRAVING model serves as the theoretical framework for construct conceptualization and item development in this study.

Classical Test Theory

Crocker and Algina's (2008) application of classical test theory guided the development process for this self-trust instrument. Crocker and Algina (2008) identified 10 steps in the systematic process of developing a test. These steps are:

1. Identify the primary purpose(s) for which the test scores will be used.
2. Identify behaviors that represent the construct or define the domain.
3. Prepare a set of test specifications, delineating the proportion of items that should focus on each type of behavior identified in step two.
4. Construct an initial pool of items.
5. Have items reviewed (and revise as necessary).
6. Hold preliminary item tryouts (and revise as necessary).
7. Field-test the items on a large sample representative of the examinee population for whom the test is intended.
8. Determine statistical properties of item scores and, when appropriate, eliminate items that do not meet preestablished criteria.

9. Design and conduct reliability and validity studies for the final form of the test.
10. Develop guidelines for administration, scoring, and interpretation of the test scores. (Crocker & Algina, 2008).

Pre-dissertation studies included step one through the beginning of step eight. The current investigation for this dissertation will complete step eight and begin step nine.

Reliability and Validity

Reliability and validity are critical psychometric properties of psychological instruments (Crocker & Algina, 2008, DeVellis, 2017). Sound psychometric properties are imperative to determine if an instrument is appropriate for use (Clark & Watson, 1995), as well as for determining what conclusions can be drawn from the scores (Messick, 1995). Initial and ongoing reliability and validity studies are vital in the instrument development process (Crocker & Algina, 2008).

Reliability refers to an instrument's consistent and predictable performance, which is an implication that the scores represent the true state of the variable being measured. Reliability can be assessed based on internal consistency and/or correlations between scale scores (e.g., alternate-forms, split-half, temporal stability; DeVellis, 2017). Internal consistency will be utilized to test reliability in the current investigation.

Validity refers to the extent that an instrument's scores are attributed to the causal influence of the phenomenon being measured (DeVellis, 2017). Types of validation include content, criterion, and construct (Crocker & Algina, 2008). Content validity pertains to the construction of the instrument and the accuracy of items to fully reflect the conceptual definition of the construct under examination. Criterion validity is assessed

through the instrument's ability to demonstrate theoretically-predicted relationships through empirical associations. Construct validity concerns the theoretical relationships between the variable and theoretically-related variables. Construct validity includes convergent and discriminant validity. Convergent validity is when theoretically-related constructs are significantly correlated, whereas discriminant validity is the absence of correlation between constructs that are theoretically unrelated (Crocker & Algina, 2008; DeVellis, 2017). Construct validity will be utilized to test validity in the current investigation.

Significance of the Study

Valid research requires the availability of adequate measures (DeVellis, 2017). There is a deficit of research on self-trust in general and counseling literature. A self-trust instrument would contribute to the body of knowledge on self-trust. Existing literature on self-trust indicates that, specific to counseling, the role of self-trust in attachment, psychosocial development, identity formation, social justice concerns, and wellness outcomes are areas that warrant further investigation. Given the clinical nature of counseling, this research is likely to have direct implications for informing and improving direct services with clients and mental health programming. Counselors would be able to utilize this instrument as an assessment tool to guide treatment interventions supported by Brown's (2015, 2017, 2018, 2021) BRAVING model. These interventions would be individualized to focus on fortifying identified deficit elements of self-trust.

Another possible use of the self-trust instrument would be to assess treatment effectiveness. For example, clinical programs, such as addiction recovery centers, mental health programs, or eating disorder treatment facilities, could evaluate client self-trust

scores at initiation of treatment and discharge as an indicator of client change and intervention success. Further research may help identify clinical populations in which self-trust repair is a critical treatment goal.

In counselor education and supervision, research on self-trust may enlighten counselor development. As examples, it is possible that self-trust may impact a counselor-in-training's formation of effective working alliances with clients and supervisors, successful development of counseling skills, and alignment with counselor professional identity (Wagner & Hill, 2015). A self-trust instrument would provide educators and supervisors with a pathway to recognize self-trust deficits and support self-trust repair for students and supervisees. As mistakes and failures are an inevitable part of the learning process, counselor educators and supervisors are uniquely positioned to balance the protection of self-trust while facilitating counselor growth, and modeling this well for counselors' work with clients.

Purpose of the Study

The purpose of this study was to begin developing and validating an instrument to measure self-trust in adults. Brown's (2015, 2017, 2018, 2021) BRAVING model served as the theoretical framework and Crocker and Algina's (2008) application of classical test theory guided this instrument development process. Evidence of reliability and validity were explored in this study.

Research Questions

The research questions that guided the current investigation were:

- (1) What is the factor structure of the self-trust instrument?

- a. Do these data provide a good fit to the proposed structure of the self-trust instrument?
- (2) What is the evidence for the reliability of the self-trust instrument scores?
- a. Do the scores of the self-trust instrument demonstrate adequate evidence of internal consistency?
- (3) What is the evidence for the validity of the self-trust instrument scores?
- a. Do the self-trust instrument scores demonstrate adequate evidence of convergent and discriminant validity?

Overview

The literature and research point to self-trust at the crux of the human condition; however, without a theoretically-grounded and empirically-tested instrument to measure self-trust, the body of knowledge on this construct is limited. The benefit of Brown's (2015, 2017, 2018, 2021) BRAVING theory is that it operationalized self-trust in a tangible way that can be used as a guide for self-trust development, maintenance, and repair. A self-trust instrument, based on Brown's (2015, 2017, 2018, 2021) BRAVING theory, would support individuals with identifying strengths and deficits in self-trust. Additionally, the availability of such a measure would promote further study of the construct, which would be a benefit to the counseling profession.

Assumptions

The following assumptions were made in this study:

- (1) Standardized procedure of psychological instrument development can be used to measure self-trust in adults.

(2) The developed instrument's items appropriately operationalize the construct of self-trust.

(3) Participants will comprehend the survey items and respond accordingly.

(4) Participants will provide honest responses on the self-report measures.

Delimitations

The following delimitations were associated with this study:

(1) Participants to be included in this study will be adults (i.e., ages 18 years and older) living in the United States of America (USA).

(2) Participants will be fluent in the English language.

(3) Quota sampling will be used to procure a sample to reflect national population demographics of adults based on age, gender, and race/ethnicity.

(4) Participants will complete the survey using an online format.

Limitations

The following limitations were associated with this study:

(1) As this study involves the use of self-report instruments, it is possible that participants may respond in a socially desirable manner instead of providing honest responses.

(2) A sample of only fluent English-speaking adults in the USA will be included in this study, which may limit the generalizability of results (e.g., with children/adolescents, non-English speakers, and international populations).

(3) This study utilizes a professional sample that is compensated based on survey completion. There is no guarantee that participants will offer thoughtful responses, which may have implications for the quality of the data collected.

Definition of Terms

The operational definitions of variables and terms pertaining to this study are provided below.

Self-Trust is the fluid state that occurs at the confluence of feeling secure in oneself, believing in oneself, and conducting oneself in a way that consistently aligns with one's values and intuition. Self-trust is a state of loyalty to self that is fostered from acknowledging one's strengths and limitations, ensuring that one's needs are met, and honoring one's worthiness. Self-trust will be measured using the subscale scores of the RA-VING Self-Trust Instrument (RSTI).

Boundaries: "You respect my boundaries, and when you're not clear about what's okay and not okay, you ask. You're willing to say no" (Brown, 2021, p. 192). Boundaries will be measured using the regressed factor scores of the Boundaries items on the self-trust instrument in-development.

Reliability: "You do what you say you'll do. At work, this means staying aware of your competencies and limitations so you don't overpromise and are able to deliver on commitments and balance competing priorities" (Brown, 2021, p. 192). Reliability will be measured using the regressed factor scores of the Reliability-Accountability (RA) items on the RSTI.

Accountability: "You own your mistakes, apologize, and make amends" (Brown, 2021, p. 192). Accountability will be measured using the regressed factor scores of the Reliability-Accountability (RA) items on the RSTI.

Vault: "You don't share information or experiences that are not yours to share. I need to know that my confidences are kept, and that you're not sharing with me any

information about other people that should be confidential” (Brown, 2021, p. 192). Vault will be measured using the regressed factor scores of the Vault (V) items on the RSTI.

Integrity: “You choose courage over comfort. You choose what is right over what is fun, fast, or easy. And you choose to practice your values rather than simply professing them” (Brown, 2021, p. 192). Integrity will be measured using the regressed factor scores of the Integrity (I) items on the RSTI.

Nonjudgement: “I can ask for what I need, and you can ask for what you need. We can talk about how we feel without judgement. We can ask each other for help without judgement” (Brown, 2021, p. 192). Nonjudgement will be measured using the regressed factor scores of the Nonjudgement (N) items on the RSTI.

Generosity: “You extend the most generous interpretation possible to the intentions, words, and actions of others” (Brown, 2021, p. 192). Generosity will be measured using the regressed factor scores of the Generosity (G) items on the RSTI.

Validity “concerns whether the variable is the underlying cause of item covariation” (DeVellis, 2017, p. 83).

Convergent Validity: “Evidence of similarity between measures of theoretically related constructs” (DeVellis, 2017, p. 100). Total scores on the General Self-Efficacy Scale (GSE; Schwarzer & Jerusalem, 1995) will be used to measure convergent validity with self-efficacy. Total and subscale scores on the Privacy Orientation Scale (Baruh & Cemalcılar, 2014) will be used to measure convergent validity with privacy, including privacy as a right, concern about own informational privacy, other-contingent privacy, and concern about privacy of others. Total scores on The Integrity Scale (Schlenker, 2008) will be used to measure convergent validity with integrity. Total scores on the

Distress Disclosure Index (DDI; Kahn & Hessling, 2001) will be used to measure convergent validity with distress disclosure. Total scores on the Rosenberg Self-Esteem Scale (Rosenberg, 1989) will be used to measure convergent validity with self-esteem.

Discriminant Validity: “The absence of correlation between measures of unrelated constructs” (DeVellis, 2017, p. 100). Subscale scores on the Big Five Inventory (BFI; John & Srivastava, 1999; John et al., 2008) will be used to measure discriminant validity with five dimensions of personality: extraversion, agreeableness, conscientiousness, neuroticism, and openness.

Reliability: “Desired consistency (or reproducibility) of test scores” (Crocker & Algina, 2008, p. 105).

Internal Consistency: “The homogeneity of the items within a scale... If the items have a strong relationship to their latent variable, they will have a strong relationship to one another” (DeVellis, 2017, p. 42). Internal consistency will be measured using Cronbach’s alpha.

Organization of the Study

This dissertation is organized in five chapters. Chapter One introduces the conceptual and empirical literature pertaining to self-trust, measuring self-trust, instrument development, the need for the study, the purpose of the study, assumptions, delimitations, limitations, and relevant operational definitions. Chapter Two describes the relevant conceptual and empirical literature related to self-trust and the relationship between trust and self-trust. Chapter Two also includes an overview of the theoretical framework, construct conceptualization, a model of self-trust development, a review of related constructs and instruments, and the instrument development process,

demonstrating the need for an instrument to measure self-trust. Chapter Three details the methodology and process utilized to develop and validate the self-trust instrument, including the results of pre-dissertation studies, as well as participants, research questions, procedures, instrumentation, and data analysis strategies for the current study. The results of the current investigation are in Chapter Four. In conclusion, Chapter Five is a discussion of the results and implications.

CHAPTER 2

LITERATURE REVIEW

An Introduction to Measuring Self-Trust

The purpose of this study is the initial development and psychometric examination of an instrument to measure self-trust. This chapter begins with an exploration of trust and a review of self-trust in the literature. Brown's (2015, 2017, 2018, 2021) BRAVING (i.e., boundaries, reliability, accountability, vault, integrity, nonjudgement, generosity) model of self-trust is provided as the theoretical model for the proposed instrument, followed by construct conceptualization and an operational definition of self-trust based on a review of the literature and the theoretical framework. The chapter includes an overview of related constructs, related instruments, and existing insufficient measures of self-trust, which highlights the need to develop a new, theoretically-based, empirically-tested instrument to measure self-trust. The chapter concludes with a description of the instrument development process.

Trust

Trust is recognized as having utmost importance in human psychology. In the field of psychology, there have been several focal points in the investigation of trust, including as it relates to psychological health, interpersonal relationships, and organizational success in the workforce. In psychology, the consensus is that trust is necessary for a healthy life (Skripkina et al., 2020).

Trust may include interpersonal trust (i.e., trust in others) and self-trust (i.e., trust in self; Prelinger & Zimet, 1964). Notably, while the construct of trust has been generally defined in the literature, the bulk of scholarly and empirical literature has focused specifically on interpersonal trust. Despite this, the literature presented a clear distinction between trust of others and trust of self as aspects of the broader construct of trust.

The concept of basic trust emerged from classical psychoanalytic theory. Basic trust underlies the development of interpersonal trust and self-trust. Erikson's work presented seminal ideas pertaining to trust as it related to psychological development and security (Skripkina et al., 2020). Erikson's trust assumed a naiveté and mutuality, as the basis of trust formation was considered to be an infant's maternal relationship. The inability to establish basic trust in infancy attributed to pathological personality presentations into adulthood (Erikson, 1963). Erikson (1963) posited that trust relied on outside providers, as well as oneself. An attitude of trust toward self and the world was considered a primary indicator for healthy personality and foundational for human psychosocial development (Erikson, 1968).

Prelinger and Zimet (1964) built on Erikson's conceptualization of trust. According to Prelinger and Zimet (1964), trust incorporated a deep sense that one's needs would be met and a faith in the goodness of others and the world. Prelinger and Zimet's (1964) conceptualization of trust also included self-acceptance and being comfortable in one's body. This definition alluded to the inter- and intra-personal nature of trust.

There are several models of interpersonal trust development. Within the psychological approach, there are three conceptualizations, including the unidimensional model, the two-dimensional model, and the transformational model (Lewicki et al.,

2006). In the unidimensional model, trust and distrust are conceptualized as opposites on a single dimension (Jones & George, 1998; Mayer et al., 1995; McAllister, 1995). In the two-dimensional model, trust and distrust are conceptualized as distinct dimensions, each with independent variability (Lewicki et al., 1998). The transformational approach recognizes that trust has various forms of trust that develop over time (Lewicki & Bunker, 1995, 1996; Rousseau et al., 1998; Shapiro et al., 1992).

Feltman (2009), who studied interpersonal trust in the workplace, defined trust as “choosing to risk something you value vulnerable to another person’s actions” (p. 9). Trust was determined by four distinctions: (a) care (i.e., consideration for the interests of others), (b) sincerity (i.e., honesty), (c) reliability (i.e., meeting commitments), and (d) competence (i.e., ability to complete proposed tasks). Trust may be earned in degrees (e.g., limited or conditional trust). Trust is essential for successful relationships and companies (Feltman, 2009).

In organizations, trust is imperative for successful operations. Increased trust improves the efficiency and effectiveness of operations (Mühl, 2014). Trust in organizations is complex, involving personal trust, as well as trust in systems and processes (Mühl, 2014; Zucker, 1986). In addition to the study of trust within intra-organizational relationships, organizational trust also incorporates factors that influence public trust in organizations (Mühl, 2014).

Interpersonal trust has been studied in counseling literature. Recent counseling literature has included topics such as: cross-racial trust between Black doctoral students and White counselor educators and supervisors (Brown & Grothaus, 2019), relational trust between Black males and school counselors (Brooms, 2021), building trust among

counseling trainees using group counseling (Gültekin et al., 2011), the impact of trust on men dropping out from counseling (Springer & Bedi, 2021), and military service members' trust in mental health professionals (Hartman et al., 2018). A literature search of titles including terms self-trust and counseling since the year 2000 yielded no results. A literature search of abstracts including terms self-trust and counseling since the year 2000 yielded one result: an article which identified issues related to self-trust as a reason that outpatient clients in Ethiopia did not accept HIV-testing initiated by providers. In this article, the construct of self-trust was not defined or explained (Abdurahman et al., 2015).

There is no universally accepted definition of trust (Mühl, 2014). Trust is a broad construct with multiple conceptualizations. The bulk of the literature on trust pertains to interpersonal trust. Available literature on self-trust is limited and lacks thematic focus.

Self-Trust

The construct of self-trust is an elusive abstraction that has not been well-developed in existing literature. Self-trust is difficult to understand (Goering, 2009). Since the 1960s, the construct of self-trust has appeared sporadically in the literature. Self-trust has infrequently been the focal point of research. Self-trust has been loosely conceptualized and/or studied in relation to psychosocial development (Erikson, 1963), sexual trauma (Brothers, 1982), feminist philosophy (Govier, 1993), healing after betrayal (Wall, 2004), postnatal autonomy (Goering, 2009), therapeutic process (Sideroff & Angel, 2013), adolescent social development (Danilova, 2019), and psychological security (Skripkina et al., 2020). Self-trust lacks conceptual cohesion due to the various, independent perspectives in the existing literature and the dearth of literature on the topic.

The following subsections highlight the only available literature specifically studying self-trust.

Self-Trust in Psychosocial Development

Erikson's Stages of Psychosocial Development is a theory that expanded on Freud's theory of psychosexual development through making connections with childhood stages and extending into adulthood. Erikson's theory is a bio-psychosocial approach to human development (Orenstein & Lewis, 2021). In the Stages of Psychosocial Development, Erikson (1963) indicated that general trust involved self-trust. One's trustworthiness was considered essential within the construct of trust (Erikson, 1968). Trusting oneself included biological coping and a reliance on the self that was independent from reliance on providers (Erikson, 1963).

Self-Trust and Sexual Trauma

Brothers (1982) sought to study self-trust in the context of trust disturbance amongst victims of sexual trauma (i.e., victims of rape and incest). Self-trust had not been empirically studied up to that point. Brothers (1982) interpreted Erikson's (1950, 1968) work to describe self-trust as a component of trust that distinctly related to one's ability to trust oneself.

Brothers (1982) utilized a Self-Trust Scale (STS; described in detail later in this chapter) to study self-trust. In addition to self-trust, Brothers (1982) studied trust in others, self as trustworthy (i.e., sense of self as worthy of the trust of others), and trauma severity using a series of measures and structured clinical interviews. Brothers (1982) analyzed the data using correlations and one-way analysis of variance.

Victims were found to have less self-trust than non-victims. Self-trust did not have a significant linear relationship with trust in others or self as trustworthy, which supported trust as a multi-dimensional construct. Brothers (1982) found an association between impaired self-trust (i.e., helplessness, worthlessness, inability to cope), severe traumatization, and either diminished or inflated trust in others. In-tact self-trust was protective against severe traumatization (Brothers, 1982).

Self-Trust in Feminist Philosophy

In a feminist philosophical exploration of self-trust, Govier (1993) expanded on the Brothers conceptualization of self-trust. In this conceptual piece, Govier (1993) indicated the importance of self-motivation, competence, and integrity in self-trust. Self-trust was identified as necessary for self-preservation, worthiness, power, meaningful existence, moral functioning, autonomy, self-respect, and self-esteem. Govier (1993) described self-trust as measured in degrees versus all-or-nothing. According to Govier (1993):

Self-trust is a necessary condition of personal autonomy and self-respect. Self-trust involves a positive sense of the motivations and competence of the trusted person; a willingness to depend on him or her; and an acceptance of vulnerability. It does not preclude trust in others. A person may be rightly said to have too much self-trust; however core self-trust is essential for functioning as an autonomous human being. (p. 99)

Self-Trust and Betrayal

Wall (2004), a Licensed Clinical Social Worker, private practice counselor, and personal growth educator, provided a clinically-oriented conceptualization of self-trust

intended to support self-help in the process of building relationships with self and others after experiencing betrayal. According to Wall (2004), self-trust is a type of trust that “means you take care of your own needs and safety and are a loving force in your life” (p. 12). Wall (2004) indicated that self-trust is an unsteady state influenced by failure, rejection, and self-betrayal. Self-trust is fostered by knowing one’s worth, respecting the self, loving the self, and believing in the self (Wall, 2004).

Self-Trust in Postnatal Autonomy

Goering (2009) provided a conceptualization of self-trust pertaining to postnatal autonomy in new parents. In this critical reflection, Goering (2009) identified self-trust as a competency for autonomy. Goering (2009) explored provider identification self-distrust and strategies for fostering self-trust in new parent postnatal patients. According to Goering (2009), self-trust is both relational and self-regarding. This conceptualization of self-trust incorporates competence, belief in abilities, good will toward self, and commitment to moral standards. Self-trust balances the acceptance of inevitability disappointing oneself and remaining optimistic (Goering, 2009).

Self-Trust and the Therapeutic Process

Sideroff and Angel (2013) explored self-trust development through the utilization of a drumming intervention in the therapeutic process. Sideroff and Angel (2013) identified self-trust formation within the context of Primitive Gestalts (PGs), or neurobiobehavioral patterns imprinted in early childhood based on conditioning and experiences. This article discussed the impact of Angel’s Rhythm of Discovery (ROD) drumming intervention on connection to true self and self-trust development conceptually and using a case study. ROD provided an environmental process conducive to

exploration and experimentation that allowed identification of the dominant pattern (PG) and opportunities to create new neurophysiological and psychosocial patterns, or Healthy Gestalt (HG). HG is associated with emotional health. In the case study, a client engaged in 26 drumming sessions, which allowed the client to experience self-trust, emotional expression, healing from PGs, and personal growth through HG (Sideroff & Angel, 2013).

Sideroff and Angel (2013) informed that self-trust requires knowledge of the true self and how the true self is received by others. Expression of the true self is critical to self-trust. Self-trust is described as a developmental process that is deeply connected with action and growth (Sideroff & Angel, 2013). Self-awareness and self-expression are emphasized, which capture the cognitive and behavioral processes of self-trust. This conceptualization of self-trust aligns with the idea that self-trust as an evolving state of being.

Self-Trust in Adolescent Social Development

Danilova (2019) conducted a quantitative study on the roles of self-trust and empathy in adolescent social development. According to Danilova (2019), “self-trust is understood as an attitude, an expectation of own success in various spheres of life, including knowledge about own capabilities, skills, and a sense of security in these areas” (p. 121). Danilova (2019) utilized a Reflective Questionnaire, described in detail later in this chapter, to study situational self-trust. Danilova (2019) found that adolescents from two-parent families had higher levels of self-trust than those from single-parent families or those living in orphanages, indicating that the degree of self-trust is determined by an individual’s world and social conditions.

Self-Trust and Psychological Security

Skripkina et al. (2020) conducted a mixed-methods (i.e., direct observation, essay analysis, psychological testing, questionnaires) empirical study to develop a model of psychological security amongst two groups of Russian adolescents from difficult backgrounds and favorable backgrounds. Skripkina et al. (2020) identified trust in self as a factor in psychological security. During the process of developing psychological security, self-trust contributes to emotional security, self-knowledge, and self-confidence. At a higher level, once psychological safety is established, self-trust fosters personal satisfaction, self-regulation, effective communication with others, self-worth, self-acceptance, self-respect, and vitality (Skripkina et al., 2020).

Discussion on Self-Trust in the Literature

The conceptualization of the self-trust construct was not the singular central point of any of these sources. Govier (1993) addressed the conceptualization of self-trust most directly, as it related to autonomy and self-esteem. The most recent developments in the conceptualization of self-trust are from Russian psychology (Danilova, 2019; Skripkina et al., 2020). Govier (1993), Wall (2004), and Danilova (2019) provided definitions of self-trust; however, these definitions were incomplete in capturing the breadth of what is known about the construct.

There were common themes in the definitions and conceptualizations of self-trust presented. Erikson (1963), as well as Sideroff and Angel (2013), described self-trust in the context of an essential developmental process. At a basic level, self-trust is rooted in biological and psychological security and safety, which requires one's physical, emotional, and social needs to be met (Danilova, 2019; Erikson, 1963; Skripkina et al.,

2020; Wall, 2004). Govier (1993), Skripkina et al. (2020), and Wall (2004) connected self-trust with self-worth and self-respect. Self-trust is needed to establish competence, belief in one's abilities, self-confidence, and an expectation of success (Danilova, 2019; Goering, 2009; Govier, 2013; Skripkina et al., 2020). Both Govier (1993) and Goering (2009) emphasized the role of self-trust in autonomy. Finally, self-trust contributes to satisfaction (Skropkina et al., 2020) and meaningful existence (Govier, 1993).

The existing conceptualizations and definitions of self-trust are compatible with each other; however, independently, they are incomplete. The literature alludes to a multifaceted construct. To appropriately address this, a focused, synthesized conceptualization of self-trust is needed.

Relationship between Trust and Self-Trust

In the literature, there are three prominent conceptualizations regarding the relationship between trust and self-trust. These are: (a) self-trust based on the trustworthiness of others (Danilova, 2019; Erikson, 1963; Sideroff & Angel, 2013), (b) self-trust as a dimension of trust (Goering, 2009; Govier, 1993; Skripkina et al., 2020), and (c) self-trust as the foundation of trust with others (Brown, 2018; Wall, 2004). These conceptualizations will be explored below.

Self-Trust Based on the Trustworthiness of Others

In Erikson's (1963) eight stages of psychosocial development, the first stage is basic trust versus basic mistrust. During this foundational stage, maternal, parental, and provider reliability and continuity offer the establishment of trust in others, which then translates to trustworthiness of the self. The state of trust is the basis for the child's identity formation, sense of self, and development (Erikson, 1963).

Sideroff and Angel (2013) explained that self-trust is linked with survival and caregiver patterns in early childhood. Self-trust developed when children were able to experiment and self-adjust within an environment of love and acceptance from primary caregivers. Children who lacked self-trust faced judgement and rejection by primary caregivers and had to modify behavior to attempt connection (Sideroff & Angel, 2013).

Danilova (2019) identified that self-trust is inextricable from trust of others. Basic trust is established during infancy through a secure relationship with the mother or other primary caregiver. Self-trust in childhood and early adolescence is based on trust of others when the child must rely on others more than the self. Features of trust included safety and relevance (Danilova, 2019).

Self-Trust as a Dimension of Trust

Govier's (1993) conceptualization of self-trust was framed within the model of interpersonal trust. In this interpretation, self-trust was considered a dimension of trust. Features of interpersonal trust were reflected in self-trust, with self-trust indicating that one has formed a positive self-concept as one who is well-intentioned, has sound-judgement, and is able to carry out reasonable plans (Govier, 1993).

Goering (2009) conceptualized trust and self-trust through the lens of the interpersonal model, which highlighted the integration of trust and self-trust processes. In this conceptualization, there were parallel key components for the formation of interpersonal trust and self-trust. In other words, the elements of trustworthiness of self and others are mirrors. The qualities of trusting included confidence in competence, belief in abilities, offering of good will, and recognition of commitment to moral

standards. Goering (2009) noted that with self-trust, the one trusting and the one trusted are the same (i.e., the self).

Skripkina et al. (2020) developed a model through which trust is conceptualized at the intersection of a person and the outside world. Trust, which includes self-trust, is a system-forming function with an emotional-personal aspect, cognitive aspect, and behavioral component. Trust was identified to have two structural elements: 1) trust in oneself, and 2) trust in the world (Skripkina et al., 2020).

Self-Trust as the Foundation of Trust with Others

Wall (2004) conceptualized trust as multi-dimensional, incorporating feeling, choice, and skill. Trust feels like safety and comfort. Choosing to trust may be automatic or taught. Trust skills stem from the practice of self-awareness. Wall identified three types of trust: self-trust, faith in a positive future, and trusting others. As an adult, a person must be able to count on one self in order to be open to honest relationships with others (Wall, 2004).

Brown (2018) acknowledged that while trust is relational, trust of others is based on trust of self. The relationship between self-trust and trust in others cannot be overestimated. Self-trust and trust in others intersect and share common elements (Brown, 2018).

Distinguishing Trust and Self-Trust

The interconnectedness between trust and self-trust is undeniable; however, they should not be mistakenly interpreted as the same construct. Trust incorporates trust of others (i.e., external) and trust of self (i.e., internal). Even though these intersect and influence each other, the construct of self-trust is specific to trust in oneself.

Due to the intimate relationship between trust and self-trust, there has been a tendency in the literature to conflate these constructs. As a result, the literature is deficient of a clear conceptualization of self-trust as a distinct construct. To further the field's body of knowledge on trust, there is an imperative to illuminate the unique component of self-trust.

Theoretical Framework

The guiding theoretical framework for this instrument is Brown's seven elements of trust: boundaries, reliability, accountability, vault, integrity, nonjudgement, and generosity (BRAVING; 2015, 2017, 2018, 2021). The BRAVING elements emerged from Brown's grounded theory research (2015). Brown utilized grounded theory methodology developed by Glaser and Strauss integrated with constant-comparison data analysis methods (Brown, 2012). The BRAVING theory pertains to both trust with others and self-trust.

Brown identified the seven elements as equitable components in the formation of trust and self-trust (Brown, 2015, 2017, 2018, 2021). Brown describes BRAVING trust as an ongoing process (2018). The BRAVING model offers a cogent way of conceptualizing and navigating self-trust. In the BRAVING model, Brown provides questions for each element to foster personal exploration of self-trust. The BRAVING self-trust elements and corresponding questions will be presented and discussed.

Boundaries

Personal boundaries are about knowing and honoring one's needs and limits. In some situations, this may also involve the ability to effectively communicate and enforce one's boundaries with others. To explore boundaries within self-trust, Brown asked, "Did

I respect my own boundaries? Was I clear about what's okay and what's not okay?" (2017, p. 39).

Reliability

Reliability in this context relates to being able to depend on yourself and follow-through on what is important to you (Brown, 2018). To explore reliability within self-trust, Brown asked, "Was I reliable? Did I do what I said I was going to do?" (2017, p. 39) and "Could I count on myself?" (2018, p. 234). Self-reliance may be strengthened by demonstrating consistency over time and across settings, as well as through self-awareness about one's competencies and limitations.

Accountability

Accountability pertains to accepting responsibility for one's actions. In self-trust, accountability reflects autonomy and ownership of one's choices. To explore accountability within self-trust, Brown asked, "Did I hold myself accountable?" (2017, p. 39).

Vault

Brown's use of vault refers to keeping confidences (2015, 2017, 2018). In self-trust, the vault represents the way that an individual protects and shares confidential information. To explore the vault within self-trust, Brown asked, "Did I honor the vault, and did I share, or not share, appropriately?" (2018, p. 234).

Integrity

Brown defines integrity as "choosing courage over comfort; it's choosing what's right over what's fun, fast, or easy; and it's practicing your values, not just professing them" (2018, p. 227). To explore integrity within self-trust, Brown asked, "Did I act from

my integrity?” (2017, p. 39) and “Did I choose courage over comfort? Did I practice my values? Did I do what I thought was right, or did I opt for fast and easy?” (2018, p. 234). Integrity implies congruence between one’s ethics and actions, even at the cost of personal discomfort.

Nonjudgement

In this context, nonjudgement is the de-stigmatization of help-seeking. Nonjudgement requires a person to have self-awareness about when help is needed and to respond with the perception that being able to ask for help is a strength (Brown, 2018). To explore nonjudgement within self-trust, Brown asked, “Did I ask for what I needed? Was I nonjudgmental about needing help?” (2017, p. 39) and “Did I ask for help when I needed it? Did I practice nonjudgment with myself?” (2018, p. 234).

Generosity

To explore generosity within self-trust, Brown asked, “Was I generous toward myself? Did I have self-compassion? Did I talk to myself with kindness and respect and like someone I love?” (2018, p. 234). Beyond self-compassion, generosity is giving oneself the benefit of the doubt and assuming the best about one’s intentions. This offering is grounded in awareness of who one is, belief in one’s own character, and honor of one’s inherent worthiness.

BRAVING and Self-Trust Literature

Brown’s (2015, 2017, 2018, 2021) BRAVING model is supported by the existing literature on self-trust. Boundaries reflects the importance of respecting oneself (Skripkina et al., 2020; Wall, 2004). Reliance on self (Erikson, 1963), competency (Goering, 2009; Govier, 1993), and skill (Danilova, 2019) are represented by Reliability.

Accountability, particularly the notion of self-ownership, corresponds with Govier's (1993) and Goering's autonomy. Danilova (2019) and Goering (2009) discussed self-trust in social environments, which highlights the importance of Vault. Govier (1993) directly mentioned integrity and Goering (2009) discussed commitment to moral standards, related to Integrity. Nonjudgement captures the permission to care for one's needs, which Wall (2004) discussed as crucial for safety. Goering's (2009) emphasis on having goodwill toward oneself and remaining optimistic in the face of disappointment is pertinent for Generosity.

Construct Conceptualization

A psychological attribute, such as self-trust, is a construct that cannot be directly measured. A construct is a hypothetical concept theorized by social scientists to explain human behavior. Construct formation includes operationally defining a construct by establishing a connection between the theoretical construct and legitimately indicative observable behaviors (Crocker & Algina, 2008; Cronbach, 1951). This section includes an operational definition and conceptualization of self-trust that will inform item development.

Operational Definition of Self-Trust

Existing definitions of self-trust are limited, lacking, and often fail to distinguish self-trust from related constructs. This researcher developed the following operational definition of self-trust, based on Brown's BRAVING conceptualization of self-trust: Self-trust is the fluid state that occurs at the confluence of feeling secure in oneself, believing in oneself, and conducting oneself in a way that consistently aligns with one's values and intuition. Self-trust is a state of loyalty to self that is fostered from acknowledging one's

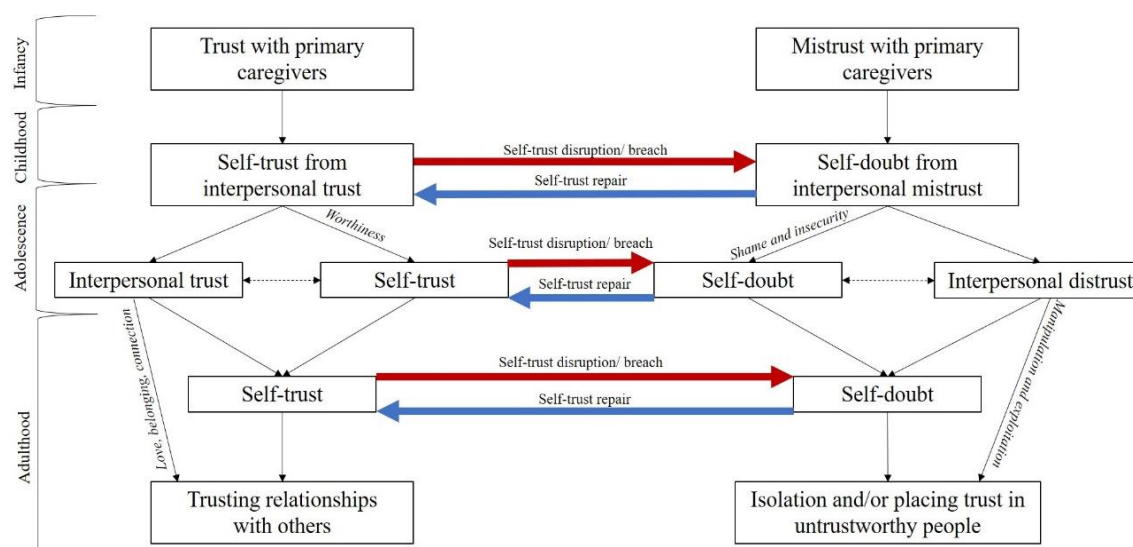
strengths and limitations, ensuring that one's needs are met, and honoring one's worthiness.

Self-Trust Development

To synthesize the literature on self-trust, the researcher presents an integrated theoretical model of self-trust formation, maintenance, disruption, and repair. In infancy and childhood, initial self-trust is established as a result of secure attachment and basic trust with primary caregivers (Danilova, 2019; Erikson, 1963; Sideroff & Angel, 2013). Interpersonal trust informs self-trust development through late adolescence, at which time, maturation fosters the independence of self-trust and trust with others (Danilova, 2019). In adulthood, self-trust serves as the core of relationship with self and the foundation for healthy relationships with others (Brown, 2018; Wall, 2004). This researcher's model of self-trust formation, maintenance, disruption, and repair is depicted in Figure 1 below.

Figure 1

Model of self-trust formation, maintenance, disruption, and repair.



Self-trust is a fluid state that is impacted by internal and external factors (Wall, 2004). At each stage of self-trust formation in childhood, adolescence, and adulthood, there are opportunities for self-trust disruption and repair. While this study is focused on adults, it is important to understand the process of self-trust formation beginning in infancy, as this shapes how self-trust is formed, maintained, disrupted, and repaired in adulthood. This researcher will provide a conceptual exploration of factors that may influence self-trust at each stage, discussed within the framework of Erikson's (1963) Psychosocial Stages of Development.

Infancy and Childhood

Self-trust formation can be traced to infancy and early childhood. During this time, the child responds to the primary caregiver (Sideroff & Angel, 2013). This is congruent with the task of the Trust vs. Mistrust stage of Erikson's (1963) Psychosocial Stages of Development. During the Trust vs. Mistrust Stage, trust with caregivers is critical for experiencing the world as safe and predictable. Failure at this stage results in fear and mistrust (Erikson, 1963).

Self-trust may be fostered when the child is accepted by the primary caregiver and the true self may be developed through opportunities (e.g., play) to learn about oneself and make appropriate self-adjustments. If the child is unaccepted by the primary caregiver, then parts of the true self are ignored and rejected. Self-trust is fractured when the child must choose attempting to receive love and connection over expression of the true self (Sideroff & Angel, 2013). This is congruent with the task of the Autonomy vs. Shame/ Doubt stage of Erikson's (1963) Psychosocial Stages of Development. During the Autonomy vs. Shame/Doubt stage, a child may begin to assert independence. Without

this opportunity, the child may experience self-doubt, shame, and low self-esteem (Erikson, 1963).

Trust, including self-trust, intersect with action and growth. Self-trust development requires risk and discomfort in the process of taking action toward personal growth. When children fear rejection by critical caregivers, they may lack sufficient self-support to foster personal growth. Vulnerability is needed to make self-adjustments toward the continued establishment of self (Sideroff & Angel, 2013). This is congruent with the task of the Initiative vs. Guilt stage of Erikson's (1963) Psychosocial Stages of Development. In the Initiative vs. Guilt stage, children have the opportunity to exercise ambition and assume responsibility for choices. Without support, feelings of guilt may arise (Erikson, 1963).

An infant learns whether or not the world is safe, predictable, and trustworthy depending on if physiological needs are met and secure attachment is established with primary caregivers. In childhood, self-adjustments are made based on the opportunities and feedback provided by primary caretakers (Sideroff & Angel, 2013). These self-adjustments can either foster self-trust formation or rejection of the self, leading to self-doubt.

Even when secure attachment with primary caregivers has been established, self-doubt can occur. Factors, such as negative consequences of personal action or interpersonal rejection (e.g., bullying), can cause self-doubt; however, maintenance of trusting relationships with primary caregivers offers a pathway toward self-trust repair. Termination or disconnection of relationships with primary caregivers (e.g., caregiver incarceration, caregiver death, caregiver abandonment, intake into foster care system,

adoption, etc.) may fracture initial experiences of self-trust. Adverse childhood experiences (ACEs), such as abuse, neglect, or household dysfunction (Felitti et al., 2019), involving caregivers and/or other adults may also rupture self-trust formation during this time. For children who have insecure attachment (i.e., avoidant, anxious/ambivalent, or disorganized attachment; Ainsworth et al., 1978) with primary caregivers, constructive relationships with other caring and trustworthy adults may provide opportunities for self-trust repair.

Adolescence

Factors that impact self-trust formation during childhood also apply in adolescence; however, interpersonal relationships, especially with peers, become the primary informants for self-trust development during early adolescence (Danilova, 2019). Identity formation at this stage is particularly susceptible to socio-cultural messages about what identities, qualities, and characteristics are valued in order to be considered acceptable and good. A person's perception of self as accepted by others fosters a sense of worthiness, whereas a person's perception of self as unaccepted by others generates insecurity and shame (Brown, 2007). This researcher hypothesizes that achieving a sense of worthiness promotes the development of an independent sense of self that is grounded in self-trust. Insecurity and shame produce patterns of perfectionism, people-pleasing, blaming, and aggression that are perpetuated by self-doubt.

Individuals with majority privileged identities may be more likely to perceive the self as acceptable and worthy. Individuals with majority marginalized identities may be more likely to perceive the self as unacceptable and unworthy. For example, in minority racial groups, internalized racism has been associated with patterns of self-defeating

attitudes and thoughts that cause self-doubt, identity confusion, feelings of inferiority, and perception of oneself as undesirable (David et al., 2019). People with disabilities may downplay or choose not to disclose disabilities in order to be considered socially acceptable (Steinberg, 2020). When a person perceived by others as helpless and defective, shame and self-devaluation rupture one's sense of self as one who is worthy of love and belonging (Onken & Slaten, 2000).

Social support, shame resilience, and positive cultural identity are protective of self-trust development during this critical stage (Goering, 2009; Brown, 2018; Wexler et al., 2009). Maturation results in the separation of self-trust and interpersonal trust toward the end of adolescence (Danilova, 2019). This separation corresponds with the transition from the Industry vs. Inferiority stage to the Identity vs. Role Confusion stage in Erikson's (1963) Psychosocial Stages of Development, during which time, individuals move from comparison of self with others toward developing an independent sense of self.

Adulthood

Adulthood, which captures the period from late teens until death, is the most extensive stage of self-trust formation, maintenance, disruption, and repair. In adulthood, self-trust serves as the foundation for trust with others (Brown, 2018; Wall, 2004). This corresponds with the Intimacy vs. Isolation stage of Erikson's (1963) Psychosocial Stages of Development. During this stage, the sense of self is shared with others; however, without a strong sense of self; one cannot develop and maintain intimate relationships, resulting in isolation (Erikson, 1963).

Self-trust also supports the developmental task of the Generativity vs. Stagnation stage of Erikson's (1963) Psychosocial Stages of Development. For example, self-trust is necessary for engagement in purposeful work, contributing to the lives of others, and the ongoing self-improvement that produces generativity. Self-doubt leads to the lack of productivity and connection with others that produces stagnation.

Self-trust is likely to be highest and most stable in later adulthood as the relationship with self and identity are well-established. In the final stage of Erikson's (1963) Psychosocial Stages of Development, Integrity vs. Despair, the key task is life satisfaction. Integrity is one of the elements of self-trust (Brown, 2015, 2017, 2018, 2021). Self-trust cultivates adherence to one's values over a lifetime, leading to a sense of meaningfulness. In the absence of self-trust and deep connection with self and others, the end of life holds depression, bitterness, and despair (Erikson, 1963).

Infancy, childhood, and adolescence lay the foundation for self-trust in adulthood. Individuals with well-developed self-trust and an inherent sense of worthiness from previous life stages are presumably better equipped to navigate periods of self-doubt and self-trust repair in adulthood. Individuals entering adulthood with disrupted self-trust are more likely to experience detrimental consequences from inevitable negative life events. Adults who doubt themselves going into adversity will likely experience these breaches of self-trust as confirmation of inadequacy and worthlessness. There are numerous possible causes of self-trust breaches that may negatively impact self-trust in adulthood.

Self-Trust Breaches: Adults in the United States of America (USA)

In adulthood, examples of possible self-trust breaches could include getting laid off from work, going through a divorce, and/or being diagnosed with a medical condition.

In the USA, approximately 5.1% of adults and 10.1% of persons with a disability were unemployed in 2021, according to the U.S. Bureau of Labor Statistics (2022). About half of first-time marriages in the USA end in divorce (American Psychological Association, 2022). The Centers for Disease Control and Prevention (CDC) stated that in 2022, 60% of American adults have a chronic disease (e.g., heart disease, cancer, lung disease, stroke, diabetes, kidney disease, etc.)

Danilova (2019) identified self-trust and interpersonal trust as the basis for successful psychological development. Danilova (2019) asserted that the “lack of self-trust leads to self-doubt, aggressive behavior, autoaggression, depression, and delinquent behavior” (p. 120). In 2018, there was a total of 6,409,200 people under adult correctional systems supervision in the USA, including probation, prison, parole, and jail (Bureau of Justice Statistics, 2021). Mental health problems can result from self-trust deficits (Danilova, 2019). According to the National Alliance on Mental Illness (NAMI, 2022), in 2020, mental illness impacted 21% of American adults.

Wall points out that self-betrayal is also a barrier to self-trust development and maintenance. Examples of self-betrayal include lack of boundaries (e.g., over-responsibility, enmeshment), self-destructive behaviors (e.g., addiction, disordered eating, self-harm), and remaining in abusive relationships (Wall, 2004). Amongst American adults, 3.8% have co-occurring substance abuse disorder (SUD) and mental illness. The highest drug use is among 18- to 25-year-old persons at 39% (National Center for Drug Abuse Statistics, 2022). Nine percent of Americans will have an eating disorder in their lifetime (Deloitte Access Economics, 2020). In 2020, an estimated 1.2 million American adults attempted suicide and 12.2 million American adults experienced

suicidal ideation, according to the Substance Abuse and Mental Health Services Administration (SAMHSA, 2021). Amongst American adults, lifetime prevalence of non-suicidal self-injury is approximately six percent and 19% in young adults (Klonsky, 2011). About 25% of women and 10% of men experience intimate partner violence in their lifetime (CDC, 2021).

It is important to consider the impact of trauma and mental illness on self-trust in adulthood. Trauma is a common occurrence, with more than 70% of adults in the USA having experienced at least one traumatic event (Benjet et al., 2016). Trauma and mental illness can have a profound impact on self-concept at any life stage (Pfund, 2020; Shpigelman & HaGani, 2019); however, this can become particularly challenging in adulthood when a person is expected to be responsible for the self, but is unable to function as a result of unresolved trauma and/or mental illness. In some cases, individuals living with trauma and mental illness maintain functioning by hiding or ignoring these experiences (Lee et al., 2017; Stumbo, 2015).

Self-trust is important for functioning at individual and societal levels, as well as for navigating changes in environmental conditions (Danilova, 2019). Thus, there is a need to understand factors that predict self-trust, mechanisms of self-trust, and correlations between self-trust and related constructs. Given the prevalence of concerns that may negatively impact self-trust in American adults, it is particularly relevant to study self-trust in this population.

Related Constructs and Instruments

Theory and measurement are linked. In social science, instruments measure intangible constructs, which may be derived from numerous, evolving theories.

Therefore, to develop an effective and useful instrument, it is important to understand the relationship between the construct of interest to other related hypothetical constructs. A strong, theoretically-supported construct conceptualization, grounded in a network of related theories, provides a strong foundation for a reliable and valid scale. Specifically, understanding the theoretical relationships between the construct of interest and related constructs supports construct validity (DeVellis, 2017). This section provides an overview of related constructs and available quantitative instruments, an exploration of the relationships between the related constructs and self-trust, as well as discussion about why the available tools are not appropriate for the measurement of self-trust.

Interpersonal Trust

Rotter (1967) expanded on Erikson's (1963) concept of basic trust. According to Rotter (1967), interpersonal trust is defined as "an expectancy held by an individual or a group that the word, promise, verbal or written statement of another individual or group can be relied upon" (p. 651). Interpersonal trust was described as an important determinant for human learning, success of psychotherapy, social group relations, personality formation, and delinquency (Rotter, 1967).

Interpersonal Trust Scale

The Interpersonal Trust Scale (Rotter, 1967) utilized a five-point Likert scale to measure a person's situational trust in various social subjects (e.g., politicians, teachers, friends). The instrument utilized additive scoring with higher scores indicating greater personal trust. The sample for the original instrument was 547 college students in a psychology class (i.e., 248 males and 299 females). The total split-half reliability was $r=.76$ ($p<.001$). A three-month test-re-test with 42 subjects had a correlation of .68

($p < .01$) and a seven-month test-re-test with 24 subjects had a correlation of .56 ($p < .01$; Rotter, 1967). The Interpersonal Trust Scale demonstrated adequate reliability and validity.

Interpersonal Trust and Self-Trust

Reliability is considered to be the theoretical core of interpersonal trust (Rotter, 1967). While reliability is also one of the elements of Brown's (2015, 2017, 2018, 2021) self-trust, in interpersonal trust, the subject of the reliability assessment is others versus the self, which is the key difference between interpersonal trust and self-trust. The overlap of the importance of reliability in Rotter's (1967) conceptualization of interpersonal trust and Brown's (2015, 2017, 2018, 2021) elements of trust and self-trust supports the theory that interpersonal trust and self-trust share common elements.

Self-Esteem

According to Rosenberg (1965), self-esteem is the overall negative or positive sum of one's attitude and evaluation of thoughts and feelings regarding the self. Self-esteem is considered a general individual trait. High self-esteem implies that a person has self-respect, worthiness, and appreciation for personal virtues. Low self-esteem indicates that a person feels unworthy and deficient (Rosenberg, 1965). The state of self-esteem may be subject to momentary alterations based on successes, feedback from others, and social context. State self-esteem is distinct from mood (Heatherton & Polivy, 1991). Self-esteem stability has been differentiated from global self-esteem and refers to the extent that self-esteem fluctuates in the short-term (Altmann & Roth, 2018). The development of self-esteem may depend on successes and failures in various domains, or contingencies of self-worth (Crocker et al., 2003).

Rosenburg Self-Esteem Scale

The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) is a widely used measure of self-esteem. The RSES is a 10-item scale. The RSES has more recently been divided into two equal sub-scales for self-competence and self-liking (Tafarodi & Milne, 2002). Self-competence relates to a person's sense of capability and efficacy. Self-liking relates to a person's sense of goodness and social relevancy (Schmitt & Allik, 2005). The RSES was found to be overall psychometrically sound with a national sample of 702 adults in the USA (Sinclair et al., 2010).

State Self-Esteem Scale

The State Self-Esteem Scale (SSES; Heatherton & Polivy, 1991) is a 20-item scale that is rated using a five-point Likert scale. Of the items, 13 are reverse-scored. The total item score is summed and evaluated as a continuous basis. Factor analysis revealed three factors of state self-esteem: appearance, performance, and social. The SSES scale was psychometrically sound with a total scale coefficient alpha of .92 and demonstrated construct validity in general and clinical settings (Heatherton & Polivy, 1991).

Contingencies of Self-Worth

The Contingencies of Self-Worth Scale (CSWS; Crocker et al., 2003) was developed to measure the domains that impacted self-esteem in American college students. The contingencies of self-worth included seven factors: competencies, competition, approval from generalized others, family support, appearance, God's love, and virtue. The contingencies included internal and external domains (Crocker et al., 2003).

The CSWS had 35 items, which were rated on a seven-point Likert-scale. Higher scores indicated greater contingencies of self-worth after reverse scoring. The subscales demonstrated high internal consistency and test-re-test reliability, as well as construct and discriminant validity (Crocker et al., 2003).

Self-Esteem Stability Scale

The Self-Esteem Stability Scale (SESS; Altmann & Roth, 2018) was developed to measure the extent to which people experience daily fluctuations in self-esteem. Originally written in German with an English translation, the SESS is a brief six-item scale. The SESS is measured using a six-point Likert scale, with higher scores representing higher stability. The psychometric properties of the scale were satisfactory with a Cronbach's alpha of .73 and superior construct validity compared to the RSES (Altmann & Roth, 2018).

Self-Esteem and Self-Trust

Of the related constructs, self-esteem is likely the most similar construct to self-trust. Like self-trust, self-esteem is also negatively impacted by experiences of failure (Brown, 2015, 2019; Crocker et al., 2003). Both self-esteem and self-trust represent a state of regard for the self. That being said, self-esteem fails to capture the extent of the behavioral components of self-trust, such as accountability and vault. Self-esteem also includes components, such as social and appearance, that are not incorporated in self-trust.

Self-Compassion

According to Neff (2003a), self-compassion:

involves being touched by and open to one's own suffering, not avoiding or disconnecting from it, generating the desire to alleviate one's suffering and to heal oneself with kindness. Self-compassion also involves offering nonjudgmental understanding to one's pain, inadequacies and failures, so that one's experience is seen as part of the larger human experience. (p. 87).

Self-compassion originated from Buddhist philosophy. In Western psychology, self-compassion provided an alternative to self-esteem for conceptualizing a healthy attitude toward the self. While self-esteem is focused on evaluating the self in comparison to others, self-compassion recognizes the fallibility of the human condition as a basis for practicing self-kindness when one is suffering (Neff, 2003a).

Self-Compassion Scale

The Self-Compassion Scale (SCS; Neff, 2003b) is a 26-item scale with six subscales, including self-kindness, self-judgement, common humanity, isolation, mindfulness, and over-identification. The SCS is psychometrically sound for reliability and validity. The SCS was developed using a sample of undergraduate students and has since consistently demonstrated high internal reliability with a variety of populations (Neff, 2016).

Self-Compassion and Self-Trust

Self-compassion is relevant to self-trust. Specifically, self-compassion is most similar to Brown's (2015, 2017, 2018, 2021) nonjudgment element of self-trust.

However, self-compassion is a distinct concept that relates to the internal process of compassion and does not encompass the breadth of the self-trust elements.

Self-Efficacy

The concept of self-efficacy was introduced in Bandura's 1977 seminal publication. Self-efficacy refers to the psychological procedures that determine the initiation, effort expenditure, and sustainability of coping behaviors. Bandura identified the sources of self-efficacy expectations as performance accomplishments (i.e., mastery), vicarious experience (i.e., exposure), verbal persuasion (i.e., influence of others), and emotional arousal (e.g., negative impact of fear on performance; Bandura, 1977). General self-efficacy (GSE) refers to general competence to perform task demands across situations (Chen et al., 2001).

New General Self-Efficacy Scale

The New General Self-Efficacy (NGSE) Scale is a brief eight-item scale that is rated using a five-point Likert-scale. The scale is scored by calculating the average score of the total items. The NGSE scale was developed using a sample of undergraduate students. The NGSE scale demonstrated internal consistency, temporal stability, content validity, and discriminant validity. The researchers suggested that the NGSE scale may be a valuable tool in organizational settings, especially pertaining to motivation, performance, and behavior (Chen et al., 2001).

Self-Efficacy and Self-Trust

Self-efficacy is linked with behavior change (Bandura, 1977). Therefore, self-efficacy may have utility in the behavioral aspects of self-trust, such as setting boundaries

and practicing the follow-through needed for reliability. Self-efficacy lacks the capacity to capture the emotional and state-specific components of the self-trust construct.

Disposition on Related Constructs and Instruments

The constructs discussed in this section can be related to self-trust; however, none of them can be equated with self-trust. Interpersonal trust and self-trust are two distinct aspects of general trust. Self-esteem best relates to the boundaries, reliability, and integrity elements of self-trust; however, self-trust and self-esteem each also have unrelated elements. Self-compassion is similar to the nonjudgement element of self-trust, but not the broader self-trust construct. Self-efficacy, which is behavioral in nature, has utility within the behavioral components of self-trust (e.g., reliability). Like the related constructs, each of the instruments reviewed in this section pertain to certain elements of self-trust; however, none of them provides a comprehensive measure of self-trust. In order to adequately measure self-trust, an instrument designed to specifically measure self-trust is needed.

Measures of Self-Trust

Self-trust has infrequently been studied quantitatively. As such, there are few available options for measuring self-trust. The researcher located two quantitative studies that included measures of self-trust (Brothers, 1982; Danilova, 2019). An overview of these measures, as well as Wall's (2004) questionnaire, are provided below.

Self-Trust Scale

The original self-trust scale in the literature was the Self-Trust Scale (STS) used in the Brothers (1982) dissertation. Brothers modified the STS from a scale used as a screening tool by a counseling service provider. Brothers was unable to trace the origin of

the scale. The STS had 16 statements, eight which were positive-valence (i.e., self as trustworthy) and eight which were negative-valence (i.e., self as untrustworthy). Subjects rated the statements on a seven-point Likert scale to indicate the degree to which each statement characterized them. Brothers reported a Pearson product moment correlation of .727 for test-retest reliability using a sample of 19 psychology graduate students. Brothers reported a correlation of .667 with the Texas Social Behavior Inventory (i.e., self-esteem measure) for construct validity. While these results appear to be acceptable, the development of the STS instrument did not meet empirical standards due to the small sample size and development issues (Kalkbrenner, 2021).

Reflective Questionnaire

To measure self-trust, both Danilova (2019) and Skripkina et al. (2020) utilized a Reflective Questionnaire, which reportedly was modified for adolescents from a questionnaire published by Skripkina in 2000. The original source of the questionnaire was untraceable and appeared to have been published in a Russian textbook that does not have an English translation. Adolescents rated levels of self-trust in the following 11 areas: educational activity, intellectual activity, daily life, relationship building with friends, relationship building with younger pupils, relationship building with teachers, relationship building with family, relationship building with young children, relationship building with parents, relationship building with members of the opposite sex, and ability to have fun. Ratings were on a six-point scale where zero indicated no trust and five indicated full trust. Self-trust was calculated as a composite score across the 11 domains, with a maximum of 55 points possible (Danilova, 2019). The reliability and validity of the questionnaire were not reported.

Self-Discovery Questionnaire: How Much Do You Trust Yourself?

Wall (2004) published the Self-Discovery Questionnaire (SDQ): How Much Do You Trust Yourself? The SDQ included 10 items to be rated on a scale from zero to five to indicate degree of applicability (i.e., zero is not applicable and five affects you often). The items were intended to indicate one's balance of self-trust and self-doubt. A scoring guide was provided with three categories: 1) high scores indicated distrust of self, 2) mid-range scores indicated honest self-doubt, and 3) low scores indicated self-confidence. Wall (2004) recommended the SDQ for use as a journal activity for the purpose of self-reflection.

Issues with Existing Measures of Self-Trust

The STS, Reflective Questionnaire, and SDQ are not adequate measures of self-trust. The origin of the STS is unknown; therefore, it presumably fails to meet industry standards for rigorous development and does not have an identified theoretical framework. The psychometric properties of the Reflective Questionnaire were not included and the original publication is not available in English. The Reflective Questionnaire seemed to be measuring levels of self-trust applied to various activities and relationships, rather than measuring overall self-trust, as the construct of self-trust was not described in the content of the items. The SDQ was not empirically-tested.

The Need for a New Instrument to Measure Self-Trust

The ability to measure theoretical constructs is a convenient and effective method of systematically organizing and labeling otherwise complex phenomena. Quantifying abstract psychological constructs and substantiating theory through empirical investigation create opportunities to predict and control behavioral patterns (Crocker &

Algina, 2008). Adequate measurement tools inform decision-making and are necessary for valid research (DeVellis, 2017).

In social science, instrument development is fundamental for quantifying and measuring intangible phenomena (DeVellis, 2017). When the literature lacks an existing instrument to measure the researcher's construct of interest or when an existing instrument has psychometric flaws, an instrument development study is needed (Kalkbrenner, 2021). While there are instruments available in the literature to measure related constructs (e.g., interpersonal trust, self-esteem, self-compassion, and self-efficacy), these constructs are distinguishable from self-trust. The limited existing measures of self-trust were not considered viable options due to lacking a theoretical framework, requisite rigorous development procedures, and necessary psychometric properties. There is no existing empirically-tested instrument to measure the construct of self-trust. Therefore, an instrument development study is needed to produce such an instrument.

An empirical framework is necessary to develop an instrument. At least one empirical source is needed for this framework; however, the empirical framework may be guided by the work of a specific theorist or a general synthesis of the existing literature (Kalkbrenner, 2021). According to Brown (2015), BRAVING is "a powerful tool for assessing our level of self-trust" (p. 200). Brown's BRAVING model provided a strong theoretical foundation and operationalized outline for the development of a self-trust measure. While Brown's BRAVING model is the primary source for the empirical framework of this self-trust instrument, the researcher's conceptualization and operational definition of self-trust incorporate the breadth of the extant literature.

As noted in the literature, self-trust is a complex construct. Self-trust encompasses beliefs, feelings, and behaviors (Skripkina et al., 2020; Wall, 2004). An accurate measure of self-trust needs to integrate and reflect all of these components. The availability of a self-trust measure may strengthen the conceptualization of self-trust in the field and provide opportunities for individuals to identify specific pathways toward self-trust repair.

It is established that trust is essential for human wellbeing, relationships, and organizational success (Skripkina et al., 2020); however, interpersonal trust, not self-trust, has been the focus of trust investigations in counseling and general literature. The lack of an empirically-tested instrument to measure self-trust contributes to the knowledge gap about self-trust. Such an instrument would provide a starting point for investigating self-trust. An increased understanding of self-trust has the opportunity to further inform the body of knowledge on general human development and wellness and topics specific to counselor education and supervision.

Instrument Development Process

The use of measurement can be traced back to ancient times and has evolved for modern use. Measurement is fundamental in social science (DeVellis, 2017). In social science, measurement is used to investigate unobservable, psychological attributes, also known as constructs (Crocker & Algina, 2008). Theoretically, a construct, or latent variable, represents the intangible underlying phenomena that influences behavior. Instruments offer a useful, standardized way to measure a construct when the construct cannot directly be observed or when behavior is an unreliable indicator of the construct. In measurement, an instrument includes a collection of theoretically-based items meant to

characterize the essence of the construct (DeVellis, 2017). Quantitative values are assigned to the sample collected by the test to measure the psychological attribute per the theoretical understanding of the construct (Crocker & Algina, 2008).

There is no universally accepted approach to measurement; however, test theory offers a general framework to guide the instrument development process (Crocker & Algina, 2008). Test theory encompasses the “logic and mathematical models that underlie standard practices in test use and construction” (Crocker & Algina, 2008, p. 7). Test theory frames the instrument development process. The methodology of operationalizing variables, measuring variables, testing the sensitivity of instruments, and testing the accuracy of measurement is informed by test theory (Crocker & Algina, 2008). The framework for this dissertation is Crocker and Algina’s (2008) approach to instrument development, which is informed by classical test theory. This section will outline Crocker and Algina’s (2008) instrument development process.

Test Construction

Crocker and Algina (2008) identified 10 steps in the systematic process of developing a test. These steps are:

1. Identify the primary purpose(s) for which the test scores will be used.
2. Identify behaviors that represent the construct or define the domain.
3. Prepare a set of test specifications, delineating the proportion of items that should focus on each type of behavior identified in step two.
4. Construct an initial pool of items.
5. Have items reviewed (and revise as necessary).
6. Hold preliminary item tryouts (and revise as necessary).

7. Field-test the items on a large sample representative of the examinee population for whom the test is intended.
8. Determine statistical properties of item scores and, when appropriate, eliminate items that do not meet preestablished criteria.
9. Design and conduct reliability and validity studies for the final form of the test.
10. Develop guidelines for administration, scoring, and interpretation of the test scores. (Crocker & Algina, 2008).

These steps represent the basic sequencing and components of test development; however, test developers may repeat steps and include additional steps. Initial test production is represented by the first six steps. The final four steps pertain to field testing, item analysis, reliability, validity, and scoring interpretation (Crocker & Algina, 2008).

Identifying Purposes of Test Score Use

In social sciences, there are several categories of instruments, including rating scales, survey questionnaires, tests, behavioral rating scales, checklists/ inventories, and psychometric instruments (Ham et al., 2016). The initial task of the test developer is to clarify the intended use of the instrument and prioritize probable uses. The instrument's purpose determines the test development approach (Crocker & Algina, 2008).

Identifying Behaviors to Represent the Construct

The construct has to be translated into test items. Before this can happen, the test developer needs to determine the behaviors that manifest the construct. Tests of individual typical performance may include respondents reporting on a sample of behaviors, feelings, and attitudes. To avoid subjectivity, several different strategies may

be employed to identify behaviors, such as review of the research, content analysis, critical incidents, direct observations, expert judgement, and instruction objectives. The researcher should use at least one of these strategies (Crocker & Algina, 2008).

When guided by a review of the research, the test developer may identify behaviors to represent in the test items from the work of one specific theorist (Crocker & Algina, 2008). If the extant literature is lacking, the researcher can develop a theoretical framework for the construct by synthesizing findings from empirical sources. A minimum of one empirical source is required for the framework; however, whether using an eclectic or specific approach, the empirical framework must guide item development to ensure that the construct is captured by the items (Kalkbrenner, 2021).

Preparing Test Specifications

Constructs may be comprised of various components. These components should be proportionally represented in the instrument based on their respective importance. During this stage, the test developer creates a plan to appropriately emphasize each component of the construct on the test (Crocker & Algina, 2008).

Item Construction

How the construct is represented is determined by item construction. This requires the selection of an appropriate format and content for the items (Crocker & Algina, 2008). Large initial item pools (e.g., 3 to 4 times as many items as the intended final scale) are protective of internal consistency (DeVellis, 2017).

Early stages of item development involve generating an exhaustive list of items that express the intended construct. Further revisions are made through critical examination of the items for content (i.e., construct representation), clarity, and

redundancy (DeVellis, 2017; Kalkbrenner, 2021). Effective items may include qualities such as being unambiguous, having an appropriate reading level (e.g., fifth to seventh grade), and brevity. Multiple negatives and double-barreled items should be avoided. Further, the developers must consider the use of positively-worded (i.e., indicate presence of construct) and negatively-worded (i.e., indicate absence of construct) items. While including both positively and negatively-worded items may reduce agreement bias, it may also cause confusion for respondents (DeVellis, 2017).

Response format selection is concurrent with item generation (DeVellis, 2017). Test developers should have a sound rationale for the item format selected (Crocker & Algina, 2008). A popular item format used for instruments in social sciences is a Likert-type response format, especially when measuring beliefs, attitudes, and opinions (DeVellis, 2017; Likert, 1932). A Likert-scale is a polytomous scaling method where respondents indicate the degree of their endorsement of the items using a response continuum (Likert, 1932). Items that correspond with Likert-type response format are strong, declarative statements (DeVellis, 2017).

Item Review

Experts should be employed to review items for “accuracy, appropriateness or relevance to test specifications, technical item construction flaws, grammar, offensiveness or appearance of bias, and level of readability” (Crocker & Algina, 2008, p. 81). Subject matter experts review item content for accuracy and appropriateness. Measurement experts review items for construction flaws and formatting. Population experts representing the intended population review the items for offensiveness and comprehension. All experts should review items for grammar and readability (Crocker &

Algina, 2008). It is the responsibility of the developer to make decisions about accepting or rejecting the feedback of the expert reviewers (DeVellis, 2017).

Preliminary Item Tryouts

It is advisable to try out the items on a small sample prior to formal field testing. The sample may be up to 100 to 200 participants, per subject availability, especially with instruments intended for commercial use (Crocker & Algina, 2008). A pilot study enables initial examination and screening of item performance. Descriptive statistics and response distribution for each item are recommended for examination. Dimensionality, or relatively high variance and a mean close to the center of the range of scores (i.e., 3) are positive indicators for item performance (DeVellis, 2017). Results of preliminary tryouts may lead to extensive revisions prior to a large-scale field test (Crocker & Algina, 2008).

When evaluating items in a development sample, items that least contribute to internal consistency are reviewed as candidates for exclusion. Redundant items are compared for item performance and lesser performing items will be eliminated. Initial Cronbach's alphas estimates may not be stable in a small pilot study and will need to be explored further with larger samples. It should be noted that Cronbach's alpha is impacted by scale length. Cronbach's alpha increases with more items (DeVellis, 2017). This may be deceptive, as Cronbach's alpha may be substantial when the scale has many items (e.g., over 14), even if more than one construct is represented. In such cases, internal consistency is not guaranteed and needs to be evaluated further as items are eliminated (Streiner, 2003).

Markedly poor performing items may be eliminated at this time. During item reduction, the researcher will need to balance brevity with reliability. As alpha may

fluctuate across samples, a safety margin should be established when adjusting scale length. Item performance should continue to be evaluated in subsequent samples during the initial development process (DeVellis, 2017).

Field Test

Once preliminary item tryouts have been completed, the next step is to conduct field tests. During field testing, the items are administered to large samples that represent the population that the instrument is designed for. Field testing starts with using a large item pool. Item analysis is utilized to select the subset of items that perform best and contribute most to reliability and validity (Crocker & Algina, 2008).

There is not a consensus regarding sample size (DeVellis, 2017). Nunnally's (1967) rule of thumb is to have five to 10 times the number of subjects as items. Tinsley and Tinsley (1987) recommend a sample size of five to 10 subjects per item, up to 300 participants, at which point, the ratio can be relaxed. Similarly, Schwab (1980) advised 10 participants per item being analyzed. Comrey (1973) suggested guidelines classifying a sample size of 100 subjects as poor, 200 subjects as fair, 300 subjects as good, 500 subjects as very good, and 1,000 subjects as excellent.

Statistical Properties of Item Scores

Factor analysis is the best way to determine dimensionality through confirmation of item groupings that constitute unidimensional sets (DeVellis, 2017). Factor analysis is on an exploratory-confirmatory continuum (Crocker & Algina, 2008). Typically, these analyses differentiate analytic tools versus research objectives (DeVellis, 2017).

An exploratory factor analysis (EFA) is the initial step for analyzing the latent variables underlying the entire item set (DeVellis, 2017). In a purely EFA, the

investigator does not hypothesize the factors; however, factor analytic research is rarely purely exploratory. Instead, the investigator may conduct statistical tests that are not subject to the hypothesis, making the study more exploratory than confirmatory (Crocker & Algina, 2008). Items that do not fit or fit into multiple of the factorially derived categories are subject to elimination (DeVellis, 2017).

In a confirmatory factor analysis (CFA), the investigator hypothesizes the factors and tests the measurement model generated by the EFA (Crocker & Algina, 2008). CFA can also be used to confirm theory-based patterns or previous analytic results, like those from the EFA (DeVellis, 2017). Notably, factor analyses guide and support the decision-making process; however, the investigator should use common sense and theory in conjunction with the analyses when making decisions (DeVellis, 2017). CFA will be conducted during this dissertation study.

Large samples provide stability for patterns in factor analysis (DeVellis, 2017). Generally speaking, large, representative samples produce reliable factors. The variable to subject ratio is an important indicator for sample size, with a ratio of two to one as a conservative minimum and recommendations up to ten to one. While factor clarity may emerge with smaller ratios, larger ratios are better (Kline, 1994). For each study involving factor analysis, the number of items must be taken into consideration when determining an appropriate sample size. The purpose of using independent samples in the EFA and CFA is to fully explore the data in each sample and confirm findings in subsequent samples.

Reliability and Validity Studies

The developer must study the reliability and validity of the final form of the test (Crocker & Algina, 2008). Reliability is an estimation of the latent variable's true score represented within the scale's obtained score (DeVellis, 2017). Validity helps determine if score variation is attributable to the underlying causal influence of the latent variable. In other words, reliability concerns the extent of the variable's influence, whereas validity concerns if the variable causes item covariation (DeVellis, 2017).

Reliability. Reliability refers to the consistency, predictability, and representation of a variable's true state. Practically, this means that scores on an instrument should only change when there has actually been a change in the variable (Crocker & Algina, 2008). While the true score of the latent variable cannot be directly assessed, the relationship between the latent variable and instrument infers empirical relationships between the items. Items that represent the same latent variable should correlate with each other (DeVellis, 2017).

Methods used to compute reliability estimate the true score plus error of the scores (i.e., the standard error of measurement), as well as the proportional representation of the true score in the scale score obtained (DeVellis, 2017; Streiner, 2003). These methods may include internal consistency, alternate-forms reliability, split-half reliability, inter-rater agreement, or temporal stability (DeVellis, 2017). All psychological measurements are unreliable to an extent, and it is the developer's imperative to evaluate the extent of the unreliability (Crocker & Algina, 2008). Initial evidence of internal consistency and test-retest reliability (i.e., temporal stability) will be the focus of this study.

Internal Consistency. Internal consistency is a method of reliability that pertains to the homogeneity of scale items. The high intercorrelation of items may indicate a common cause: that the items all measure the same latent variable (DeVellis, 2017). The desired outcome is for items to be highly correlated with the latent variable's true score and for the items to be highly intercorrelated with each other. A correlation matrix (standardized data) or more general covariance matrix (unstandardized data) may be used for this analysis. High correlations are indicative of reliability.

Alpha is the reliability coefficient (Cronbach, 1951; DeVellis, 2017). A value of .70 is the accepted lower bound for alpha (Nunnally, 1978). Streiner (2003) recommended an upper bound of .90 for alpha, as alphas over .90 are likely a sign of redundancy. If a scale has subscales, the alphas for the individual subscales should be higher than the alpha for the entire scale; however, alphas are still recommended to be between .70 and .90 for subscales (Streiner, 2003).

Notably, Cronbach's alpha is fluid, depending on both the instrument itself and on the sample. Cronbach's alpha increases in homogeneous samples. The same scale may have different reliabilities, depending on the group (Streiner, 2003). This has important implications for sample selection and

Test-Retest Reliability. For test-retest reliability, the instrument is re-administered to the previous sample. This is an analysis of the constancy of scores on separate occasions, which would demonstrate that the measure comparably assesses the construct on each occasion. The extent of the latent variable's determination of the observed scores is represented by the correlation of the same sample's scores across both administrations (DeVellis, 2017). Changes in scores across administrations may reflect the scale's error-

proneness and/or an accurate tracking of change in the phenomenon, so the developer must balance the stability of both the measure and the phenomenon when determining time elapsed between administrations and interpreting results of the coefficient of stability (DeVellis, 2017; Nunnally, 1978; Crocker & Algina, 2008).

There is not a minimum accepted value for the coefficient of stability in test-retest studies, although well-constructed attitude, personality, or interest measures may have short-term reliability coefficients in the .80s (Crocker & Algina, 2008). The minimum recommended sample size for a test-retest study is 50 participants; however, a larger sample size of 200 would power the study for greater precision (Polit, 2014). A retest interval of one to two weeks is common, although intervals of months or years could also be appropriate, depending on the construct (Crocker & Algina, 2008; Polit, 2014). According to Crocker and Algina (2008), “critical factors in evaluating the magnitude of a stability estimate must include the elapsed time between testings and the age of the examinees as well as the nature of the theoretical trait itself” (p. 133).

Validity. The validation process involves supporting clearly identified test score inferences through the collection of evidence. Validity is important for ascertaining the meaning, interpretation, and implications of the test scores (Cronbach, 1971). There are three major types of validation studies: content, criterion, and construct (Crocker & Algina, 2008). These forms of validity infer “the manner in which a scale was constructed, its ability to predict specific events, or its relationship to measures of other constructs” (DeVellis, 2017, p. 83), respectively. Criterion and construct validity will be included in the dissertation study.

Content Validity. Content validity is “the extent to which a specific set of items reflects a content domain” (DeVellis, 2017, p. 84). Content validity is a unique form of validity because it is determined by the test developer’s actions from the outset of the development process through the methods that the developer employs to ensure that available items measure the intended domain. This is a subtle process when measuring subjective attributes, such as dispositions, beliefs, and attitudes (DeVellis, 2017).

The conceptual definition of the construct being examined is inextricable from content validity. The item content should reflect aspects from within the conceptual definition supported by the specific theory being used for the scale, even if other conceptualizations exist. An important method for supporting content validity is to have the item pool reviewed by content experts for relevance and appropriateness to the domain (DeVellis, 2017).

Criterion Validity. The purpose of criterion validity is to use test scores to draw inferences on performance criterion (Crocker & Algina, 2008). The scale in development is compared to an existing valid scale (Bannigan & Watson, 2009). Criterion validity is established when there is an empirical association between the scales (DeVellis, 2017). Predictive validity is the test’s ability to predict a future measurement, whereas concurrent validity is the relationship between scores on criterion measurements taken simultaneously (Crocker & Algina, 2008).

Construct Validity. Construct validity regards the relationships between variables in the theoretical system. A construct must demonstrate theoretically-appropriate mathematical or logical relationships to other constructs within the system (DeVellis, 2017; Crocker & Algina, 2008). Empirical correlations that correspond with a

theoretically predicted pattern provide evidence that the instrument measures the variable that it is supposed to (DeVellis, 2017). The utilization of additional measures for validity provides statistical support for the theoretical and real-world relationships between variables with related constructs. Pearson's correlation (r) is be utilized to determine if there is a linear relationship between variables across measures (Nunnally, 1978).

Convergent validity provides evidence that theoretically related constructs are similar (DeVellis, 2017). Carlson and Herdman recommended a rigorous standard of r equal to or greater than .70 for convergent validity and r equal to or less than .50 as unacceptable for convergent validity (2012). However, there is considerable inconsistency in reported convergent validity and researchers have argued that measures converge with values of r as low as .28 (Carlson & Herdman, 2012). Discriminant validity provides evidence of an absence of correlation between measures of theoretically unrelated constructs (DeVellis, 2017). Values of r approaching 0 may be evidence for discriminant validity (Carlson & Herdman, 2012).

Emergent theories that offer a general and ambiguous understanding of the construct and its relationships to other constructs can make it difficult to measure convergent validity during the early study of a phenomenon. The inclusion of multiple alternate measures and thorough reporting of construct validity supports appropriate interpretation of results. Further, this information, including discontinuities, can illuminate insights that lead to the refinement of construct conceptualization (Carlson & Herdman, 2012). Validation studies are continuous to determine results across settings, contexts, and time. Investigating validity is important for evaluating the instrument's ongoing social and political utility and consequences (Messick, 1995).

Administration, Scoring, and Interpretation of the Test Scores

The final step of the instrument development process is to produce guidelines for test administration, a scoring protocol, and information about how the scores should be interpreted (Crocker & Algina, 2008). When measuring psychological constructs, arbitrary metrics are used. This means that the ratings on the rating scale are meant to indicate higher or lower standing pertaining to the psychological construct; however, the metric units are not true units of measurement for the psychological construct. It is unknown if the rating scale represents the full continuum of the psychological construct or if the scores reflect the true standing on the continuum. Test developers seek to interpret how the observable scores on the instrument represent individual standing and magnitude of change in the unobservable psychological construct (Blanton & Jaccard, 2006).

Item scores are the points assigned to individual items, whereas the composite test score is the total test score for all items. The distribution of test scores may be described by applying mean, standard deviation, variance, and correlation (Crocker & Algina, 2008). If using positively and negatively-worded items, reverse scoring (i.e., reverse value order) is necessary for the negatively-worded items. This can be done electronically and values should be reversed prior to scoring (DeVellis, 2017).

The interpretability of test scores may be enhanced through the use of norms, which compare the respondent's performance to the score distribution of a norm sample. Examples of normative scores include percentile rank, normalized z -scores, derived scores, stanines, and scales scores. Once the group statistics are computed, the researcher can develop normative score conversion tables and guidelines for score interpretation. As

measurement error can impact scoring, the researcher must use caution when developing scoring procedure (Crocker & Algina, 2008).

Summary

Self-trust shapes the human experience. Without self-trust, there is insecurity, hesitancy, and uncertainty in one's identity and purpose. Despite the importance of self-trust, this construct is underdeveloped in the literature and there is not an empirically-tested instrument to measure self-trust. The proposed instrument is a tool that will support individuals with assessment of self-trust competencies and identification of self-trust elements for development and repair. The instrument has prospective uses in general and clinical settings. Engineering self-trust has the potential to be transformative, vitalizing the experience of self, and emboldening healthy connection with others.

CHAPTER 3

METHODOLOGY

Initial Development of the RA-VING Self-Trust Instrument (RSTI)

The purpose of this study was the development and initial validation of an instrument to measure self-trust. According to Crocker and Algina (2008), there is a step-by-step systematic process for instrument development. The phases of investigation in this chapter correspond with Crocker and Algina's (2008) method.

The chapter will begin with an overview of the process utilized for construct conceptualization and initial item development. For the pre-dissertation studies (Study One and Study Two), the participants, procedures, survey materials, analysis, and results will be described. For the proposed dissertation study (Study Three), participants, procedures, survey materials, and analysis will be discussed. This chapter will identify the research questions for the dissertation study.

Pre-Dissertation Studies

The pre-dissertation studies, Studies One and Two, were completed prior to this dissertation, with approval from the University of Georgia's (UGA) Institutional Review Board (IRB). Study One included construct conceptualization, item development, and a pilot study. Study Two was an Exploratory Factor Analysis (EFA). Studies One and Two laid the ground work for the dissertation studies (i.e., Study Three and Study Four) and are described briefly here.

Construct Conceptualization and Item Development

The researcher began by reviewing the literature, with a focus on Brown's BRAVING (2015, 2017, 2018, 2021) model, to develop an operational definition for self-trust. The researcher developed an initial item pool of 80 items. The items were first reviewed by a measurement expert. Subsequent drafts, based on measurement expert's feedback, increased the initial item pool up to 93 items going into expert review (see Appendix A).

Two content experts provided content review (see Appendix B). Content Expert One was the Senior Director of Research and Evaluation for Brené Brown Education and Research Group (BBEARG), Certified Daring Way™ Facilitator (CDWF; i.e., empirically-based certification in Brown's research, including the BRAVING model), and Licensed Psychologist with over 20 years of clinical research experience, including instrument development. Content Expert Two was a Senior Faculty Member of The Daring Way™, CDWF, and Licensed Clinical Social Worker (LCSW) with over 40 years of experience in clinical work, academia, and research. Content experts validated the researcher's operational definition of self-trust and provided feedback on item relevancy to the guiding theory and corresponding elements. All negatively worded items were removed, and, when possible, replaced with positively worded alternatives. The item pool was reduced to 74 items going into measurement expert review.

Two additional measurement experts provided measurement review (see Appendix C). Measurement Expert One had over 30 years of experience in higher education as a research administrator, professor of educational research methods, and statistician trained in applied measurement. Measurement Expert Two was a professor

with over 20 years of experience specializing in applied measurement and quantitative methods. Measurement experts provided feedback on improving item structure and clarity. Measurement experts confirmed the five-point rating scale and instrument instructions. The item pool was reduced to 68 items (see Appendix D).

Cognitive interviewing is a psychological, empirical method used to support content validity by exploring if the instrument measures what it intends to, respondents understanding of items, and potential response set issues (Willis, 2005). The researcher conducted cognitive interviews (see Appendix E) with five population reviewers. The population reviewers represented diversity in age, race/ ethnicity, gender, education level, profession, socio-economic status (SES), and life experience. Participant ages ranged from late-twenties to mid-sixties. Three participants were White, one was Black, and one was Hispanic. Participants included two people who identified as cisgender males, two people who identified as cisgender females, and one person who identified as gender queer. Education levels included some college, bachelor's degree, some graduate school, master's degree, and doctorate degree. Professions represented included business owner in software industry, student affairs, website development, psychology, and graduate student. Participants' SES ranged from middle class to upper-middle class, some with low SES backgrounds. Examples of life experiences represented included being in recovery from substance abuse, living with chronic illness, and relationship status (e.g., single, divorced, engaged, and married.)

The researcher administered a draft of the instrument to the population reviewers and used a questionnaire to garner feedback on their experiences (Willis, 2005). The researcher utilized feedback from the population reviewers to make additional edits to the

items and instructions. All of the population reviewers endorsed general clarity and understanding of items. One item was designated to another element/indicator based on a participant noting redundancy between two items that were originally coded to different elements. An additional item was added, for a total of 69 items.

Opinions of population experts indicated the hypothesis that participants taking the self-trust instrument may be likely to respond favorably versus honestly, especially if the instrument is not administered anonymously. The population reviewers indicated drawing from experiences across multiple aspects of life to respond to items. In response, the sentence “Your responses should be general and encompass the various aspects of your life (e.g., personal, professional, etc.)” was added to the instructions. Partial bold formatting was also added to the instructions to draw attention based on one participant’s feedback about skimming the instructions.

Study One (Pilot Study): Initial Item Testing

Crocker and Algina (2008) suggested preliminary item tryouts with a small sample of 15 to 200 participants. The purpose of this study was to examine and screen initial item performance, including item endorsement, item variability, item discrimination, item internal consistency, item criterion-related validity, and impression management. Item endorsement evaluates the mean scores, where a mean near the center of the range is desirable, and a mean near one of the extremes is a possible indicator that correlation with other items may be reduced. Item variance refers to item responses covering the range of available scores as a representation of diversity of the construct within the sample (DeVellis, 2017). Item discrimination is the item’s ability to effectively discriminate between respondents with relatively high and low levels of the criterion of

interest (Crocker & Algina, 2008). Internal consistency assesses each item's homogeneity with other items as a form of reliability. Item criterion-related reliability is predictive validity, based on the items' empirical association with an exemplar criterion. Inclusion of an impression management scale can help identify which items may be strongly influenced by social desirability (DeVellis, 2017). These analyses were used to inform item revisions and eliminations prior to administering the instrument to a large sample.

Participants

The researcher utilized Qualtrics Online Sample Team to recruit a national sample of 150+ adults. The final sample consisted of 157 participants. Eligibility criteria included living in the USA, being at least 18-years-old, and fluency in the English language. The Qualtrics Online Sample Team used quota sampling, a non-probability sampling method, to reflect national population demographics for adults based on age, gender, and race/ethnicity. The sample was recruited from "traditional access panels, co-branded panels, or opt-in databases" (Qualtrics, 2021, p. 5) to ensure a representative and diverse data set. The researcher also collected demographic information, including highest level of education, marital status, employment status, and household income.

Sample. Of the final sample of 157 participants, 73 identified as male (45.9%), 81 identified as female (50.9%), one identified as non-binary (.6%), one identified as transgender (.6%), and one declined to respond (.6%). The racial demographics of the sample were 65.4% White ($n=104$), 11.9% Hispanic or Latino/a ($n=19$), 11.9% Black or African American ($n= 19$), 6.9% Asian or Pacific Islander ($n= 11$), 0.6% Native American or American Indian ($n= 1$), 0.6% Bi-Racial or Multi-Racial ($n= 1$), 1.3% Other Racial Identity ($n= 2$), and 0.6% declined to respond ($n= 1$). Participants were

approximately 46-years-old ($M = 45.73$, $SD = 18.75$), with ages ranging from 18 to 87. Education levels of participants were 3.1% some high school ($n=5$), 25.2% high school degree or GED ($n= 40$), 1.2% some college ($n= 2$), 20.1% associate's degree ($n= 32$), 24.5% bachelor's degree ($n= 39$), 17% master's degree ($n= 27$), 3.1% professional doctorate ($n= 5$), 3.8% Ph.D. ($n= 6$), and 0.6% trade school/ technical school/ vocational training ($n= 1$). Marital statuses of participants were 25.2% single ($n= 40$), 5.7% long-term relationship ($n= 9$), 3.1% domestic partnership ($n= 5$), 48.4% married ($n= 77$), 7.5% divorced ($n= 12$), 8.2% widowed ($n= 13$), and 0.6% prefer not to answer ($n= 1$). Employment statuses of participants were 15.7% part-time ($n= 25$), 37.7% full-time ($n= 60$), 4.4.% self-employed ($n= 7$), 5% out of work looking for work ($n= 8$), 1.9% homemaker ($n= 3$), 5.7% student ($n= 9$), 23.9% retired ($n= 38$), 3.8% unable to work ($n= 6$), and 0.6% other (i.e., I don't work; $n= 1$). Income levels of participants were 11.3% below \$10k ($n= 18$), 35.8% \$10k to \$50k ($n= 57$), 20.8% \$50k to \$100k ($n= 33$), 15.1% \$100k to \$150k ($n= 24$), 11.9% over \$150k ($n= 19$), and 3.8% prefer not to answer ($n= 6$).

Procedures

Prior to data collection, the University of Georgia's (UGA) Institutional Review Board (IRB) approved the study. The survey was administered online using the Qualtrics platform. Panel members either signed in through a panel portal or were sent an email invitation to proceed with the given survey via a hyperlink (Qualtrics, 2021). Participants were offered to receive various incentives for survey completion (e.g., cash, airline miles, gift cards, redeemable points, charitable donations, sweepstakes entrance, or vouchers). The average respondent received about \$5.00 in compensation.

The informed consent document was the first page of the online survey. It detailed the purpose of the study, nature of participation, risks and benefits, contact information of the PI, incentive associated with participation, and other relevant details to inform participants' decision-making. By continuing participation in the online questionnaire, the participants gave their consent, as noted on the Informed Consent page.

The survey included a quality check question, through which participants could indicate their commitment to providing their best answers. A forced response validation was added to the age question on the demographic form to ensure eligibility. For all other questions, request response validation was added. Data collection started with a soft launch for an initial collection of 11 responses. Following the soft launch, a speeding check was added (i.e., half the median soft-launch response time).

Survey Materials

Survey materials included an informed consent letter (see Appendix F), demographic questionnaire (see Appendix G), and the 69-item BRAVING Self-Trust instrument draft (see Appendix H). Additional measures were selected for impression management and criterion validity to be included in the pilot study. The researcher selected the Test of Self-Conscious Affect-3 Short Form (TOSCA-3s; Tangney & Dearing, 2002; see Appendix I) as a measure for criterion validity. The Marlow-Crowne Social Desirability Scale 13-Item Short-Form (MC-C; Reynolds, 1982; see Appendix J) was selected as a control for respondent social desirability.

TOSCA-3. The TOSCA-3 was normed on three samples of adults participating in psychology classes at a large public institution, with between 812 and 828 total responses

recorded. The samples were indicated as representing diversity in age, socio-economic status, and ethnic background (Tangney & Dearing, 2002).

The TOSCA-3s uses 11 scenarios with four items each to measure an individual's likelihood to express various self-conscious affects, including shame, guilt, externalization, and detachment. The shame and guilt scales on the TOSCA-3s correlated at .94 and .93 with the TOSCA-3, supporting the use of the short form. The average reliabilities for the three samples on the TOSCA-3, expressed by Cronbach's alpha, were as follows: shame .80, guilt .77, externalization .74, and detachment .70 (Tangney & Dearing, 2002). In the current sample, the Cronbach's alphas were: shame .77, guilt .87, externalization .87, and detachment .84.

According to Tangney and Dearing, "shame and guilt are inextricably linked to the self in relationship with others" (2002, p. 2). Shame-prone individuals are likelier to be self-blaming, resentful, and less empathetic. Guilt-prone individuals are likelier to accept responsibility and practice empathy (Tangney & Dearing, 2002). For criterion validity, the researcher hypothesized that lower scores on self-trust items will predict higher scores on shame-proneness and that higher scores on self-trust items will predict higher scores on guilt-proneness.

MC-C. The MC-C is a true or false-type scale. The sample in this study consisted of 608 undergraduate students at a medium-sized state university. The sample was majority White (81.2%) and majority female (60.7%), with a mean age of 20.54 years old (Reynolds, 1982). In this sample, there was an acceptable reliability of .76 using the Kuder-Richardson Formula 20 (KR-20). In the current sample, the reliability, estimated with KR-20, was .60. Perinelli and Gremigni (2016) suggest consideration of social

desirability when measuring self-report within the field of clinical psychology. Including a social desirability scale early in scale development can help the researcher identify and consider excluding items that are strongly influenced by social desirability (DeVellis, 2017).

Data Analysis

Classical test theory was utilized to inform data analysis. Item endorsement, item variability, item discrimination, item internal consistency, item criterion-related validity, and impression management were examined. The mean of the item score was examined for item endorsement. As the instrument uses a five-point Likert-type scale, a mean score near three was considered ideal. Standard deviation and range were used to assess item variability. Due to the five-point Likert-type scale, standard deviations of at least one and a range of five (i.e., full range of responses) was desired. Item total score correlations were used to assess item discrimination by element subscale. Specifically, the corrected inter-item total score correlation was used to independently remove each item from the total score of items to assess the impact of each item. Based on a priori guidelines, items performing adequately would reflect magnitudes that were moderate in size ($r = .2$ or higher) and positive. To evaluate item internal consistency, an alpha-deleted analysis was used. This analysis demonstrates how deleting an item within the expected subscales might affect Cronbach's alpha, with an acceptable cutoff of .70 (Nunnally, 1978).

Additionally, bivariate correlations between each item and the TOSCA-3s Guilt and Shame subscales were performed to assess the item level criterion-related validity. It was expected for the BRAVING items to be positively correlated with guilt and negatively correlated with shame based on theory. Higher correlations represent stronger

criterion-related validity. The MC-C was added for an initial assessment of impression management, and bivariate correlations were performed between the BRAVING items and the MC-C total score and the BRAVING subscales and the MC-C total score. Due to missing cut off scores of the MC-C, the researcher assumed low to low-moderate correlations ($r < .3$) represented lower social desirability.

Results

Of the 69 items, 34 items were flagged for having a mean score of four or higher, 50 items were flagged for having a standard deviation under one, and four items were flagged for a range less than five. These results indicated that the responses were generally negatively skewed and lacking acceptable item variability. See Table 1 for a summary of item endorsement and variability.

Most items demonstrated appropriate item discrimination, as evidenced by at least moderate inter-item total score correlations by element subscale ($r > 0.2$). For the Boundaries subscale, the inter-item total correlations ranged from .26 to .66. On the Boundaries subscale, one item was flagged for having generally lower inter-item total correlations than the other items in the subscale, despite meeting the threshold for moderate inter-item total score correlations by element subscale. For the Reliability subscale, the inter-item total correlations ranged from .16 to .62. On the Reliability subscale, one item was flagged for low item discrimination by element sub-scale ($r < 0.2$). For the Accountability subscale, the inter-item total correlations ranged from .40 to .70. For the Vault subscale, the inter-item total correlations ranged from .36 to .68. For the Integrity subscale, the inter-item total correlations ranged from .36 to .65. For the Nonjudgement subscale, the inter-item total correlations ranged from .31 to .64. For the

Generosity subscale, the inter-item total correlations ranged from .34 to .67. The inter-item total correlations by element subscales are reported in Table 2.

With the exception of one item, all remaining items demonstrated acceptable internal consistency using an alpha deleted analysis. One item was flagged because alpha improved for the element subscale with item deletion. The alpha deleted analysis by element subscales is reported in Table 3.

Regarding criterion variables, all items demonstrated positive relationships with the guilt criterion variable and most demonstrated negative relationships with the shame criterion variable on the TOSCA-3s, as expected. Ten items were flagged for demonstrating a positive relationship with the shame criterion variable. A summary of correlation coefficients between BRAVING items and the shame subscale of the TOSCA-3s is in Table 4. A summary of correlation coefficients between BRAVING items and the Guilt subscale of the TOSCA-3s is in Table 5.

When assessing issues of social desirability, the items were positively correlated with MC-C, indicating socially desirable responses. Items with correlations of .3 or higher were flagged, for a total of 25 flags. A summary of the correlation between BRAVING items and MC-C social desirability is in Table 6.

Flagged items were reviewed and compared, followed by initial revisions. In total, 61 items were flagged for item endorsement, item variability, item discrimination, item internal consistency, criterion-related validity, and/or impression management. The majority of flags were for item endorsement (i.e., 34) and variability (i.e., 50) concerns. A total of eight items were removed for low performance, 11 items were revised by strengthening the item language, and four additional items were added for construct

representation. A draft of initial revisions was reviewed by a content expert and feedback was utilized for additional revisions. With revisions, 65 items were retained for Study Two.

Study Two: Exploratory Factor Analysis (EFA)

Factor analysis was introduced in Study Two. Since the items in this self-trust instrument were developed in subscales based on the BRAVING elements of trust, the researcher examined empirical evidence that the items indeed factor loaded on the intended subscales and covaried in a meaningful way. In addition to the EFA, this study also assessed internal consistency, criterion validity, convergent validity, discriminant validity, and impression management of the BRAVING scores. These analyses were used to make item eliminations, develop a final draft of the self-trust instrument for use in the dissertation studies, and inform decisions about future analyses.

Participants

The researcher utilized Qualtrics Online Sample Team to recruit a national sample of 650+ adults. The final sample consisted of 692 participants. Eligibility criteria included living in the USA, being at least 18-years-old, and fluency in the English language. The Qualtrics Online Sample Team used quota sampling, a non-probability sampling method, to reflect national population demographics for adults based on age, gender, and race/ethnicity. The sample was recruited from “traditional access panels, co-branded panels, or opt-in databases” (Qualtrics, 2021, p. 5) to ensure a representative and diverse data set. The researcher also collected demographic information, including highest level of education, marital status, employment status, and household income.

Sample. Of the sample of 692 participants, 343 identified as male (49.6%) and 349 identified as female (50.4%). The racial demographics of the sample were 65.6% White ($n=454$), 12.1% Hispanic or Latino/a ($n=84$), 12.1% Black or African American ($n= 84$), 3.9% Asian or Pacific Islander ($n= 27$), 1.4% Native American or American Indian ($n= 10$), 3.5% Bi-Racial or Multi-Racial ($n= 24$), and 1.3% Other Racial Identity ($n= 9$). Participants were approximately 47-years-old ($M = 47.04$, $SD = 17.57$), with ages ranging from 18 to 90. Education levels of participants were 3% some high school ($n= 21$), 16% high school degree or GED ($n= 111$), 19.4% some college ($n= 134$), 10.3% associate's degree ($n= 71$), 28.3% bachelor's degree ($n= 196$), 14.2% master's degree ($n= 98$), 0.4% specialist's degree ($n= 3$), 3% professional doctorate ($n= 21$), 2.2% Ph.D. ($n= 15$), 2.9% trade school/ technical school/ vocational training ($n= 20$), and 0.3% prefer not to answer ($n= 2$). Marital statuses of the participants were 23.6% single ($n= 163$), 6.6% long-term relationship ($n= 46$), 4.3% domestic partnership ($n= 30$), 51% married ($n= 353$), 0.5% separated ($n= 4$), 9.4% divorced ($n= 65$), 3.9% widowed ($n= 27$), 0.2% other ($n= 2$), and 0.3% prefer not to answer ($n= 2$). Employment statuses of participants were 12.3% part-time ($n= 85$), 39.7% full-time ($n= 275$), 5.2% self-employed ($n= 36$), 4.8% out of work and looking for work ($n= 33$), 1.4% out of work but not looking for work ($n= 10$), 6.5% homemaker ($n= 45$), 2.9% student ($n= 20$), 0.1% military ($n= 1$), 20.6% retired ($n= 143$), 6.1% unable to work ($n= 43$), 0.1% other (i.e., volunteer; $n= 1$). Income levels of participants were 6.4% below \$10k ($n= 44$), 35.8% \$10k to \$50k ($n= 248$), 30.6% \$50k to \$100k ($n= 212$), 15.6% \$100k to \$150k ($n= 108$), 9% over \$150k ($n= 62$), and 2.6% prefer not to answer ($n= 18$).

Procedures

The UGA IRB approved Study One and Study Two concurrently. The survey was administered online using the Qualtrics platform. Panel members either signed in through a panel portal or were sent an email invitation to proceed with the given survey via a hyperlink (Qualtrics, 2021). Participants were offered to receive various incentives for survey completion (e.g., cash, airline miles, gift cards, redeemable points, charitable donations, sweepstakes entrance, or vouchers). The average respondent received about \$1.25 in compensation.

The informed consent document was the first page of the online survey. It detailed the purpose of the study, nature of participation, risks and benefits, contact information of the PI, incentive associated with participation, and other relevant details to inform participants' decision-making. By continuing participation in the online questionnaire, the participants gave their consent, as noted on the Informed Consent page.

The survey included a quality check question, through which participants could indicate their commitment to providing their best answers. A forced response validation was added to the age question on the demographic form to ensure eligibility and to the gender and race/ethnicity questions to ensure sample quotas. For all other questions, request response validation was added. Five attention check questions were included on the self-trust instrument.

Data collection started with a soft launch for an initial collection of 49 responses. Of the 49 respondents, nine failed the attention check (i.e., provided incorrect answers to two or more of the five attention check questions.) Those responses were removed from the sample and Qualtrics added survey logic to automatically screen out responses with

failed attention checks going forward. Following the soft launch, a speeding check was added (i.e., half the median soft-launch response time). An instrument was again included for impression management. Cutoff scores for high social desirability were utilized for an early screening of the data.

Survey Materials

Survey materials included an informed consent letter (see Appendix K), demographic questionnaire (see Appendix L), and the 65-item BRAVING Self-Trust instrument draft (Appendix M). Additional measures for criterion validity, convergent validity, discriminant validity, and impression management were selected to be included in Study Two. The Social Connectedness Scale- Revised (SCS- R; Lee et al., 2001; see Appendix N) was selected for criterion validity. The researcher selected The Self-Compassion Scale- Short Form (SCS- SF; Raes et al., 2011; see Appendix O) as a measure for convergent validity. The Narcissistic Personality Inventory 13-Item Short Form (NPI-13; Gentile et al., 2013; see Appendix P) was selected for discriminant validity. The full-length Marlow-Crowne Social Desirability Scale (M-C SDS; Crowne & Marlowe, 1960; see Appendix Q) was selected as a control for respondent social desirability.

SCS- R. The SCS-R is a 20-item scale with a six-point Likert scale. There are 10 positively worded items and 10 negatively worded items, with the negatively worded items using reverse scoring. The scale was originally tested on an undergraduate sample of 218 students, including 112 men and 105 women. The SCS-R demonstrated good internal reliability (Lee et al., 2001). For the current sample, Cronbach's alpha was .92. For criterion validity, the researcher predicted a strong correlation between self-trust and

social connectedness, based on Brown's (2018) theory that in adulthood, self-trust is the foundation for trust in others.

SCS-SF. The SCS-SF is a 12-item scale that utilizes a five-point Likert scale. There are six two-item subscales to measure self-compassion: self-kindness, self-judgement, common humanity, isolation, mindfulness, and over-identification. The self-judgement, isolation, and over-identification subscales are reverse-scored. After reverse-scoring, a composite score for self-compassion can be obtained by computing the mean for all items. The SCS-SF was originally tested on three samples. It was found to be reliable (Cronbach's $\alpha \geq .86$), strongly correlated with the long form ($r \geq 0.97$), and factorially validated across samples (Raes et al., 2011). For the current sample, Cronbach's α was .78. For convergent validity, the researcher predicted a strong correlation between self-trust and self-compassion, and particularly between the non-judgement and generosity elements of self-trust and the self-kindness subscale of self-compassion.

NPI-13. The NPI-13 is a 13-item measure of narcissistic personality that uses a forced choice response format. The NPI-13 is a short-form of the NPI-40. There are three subscales included on the NPI-13 ($\alpha = .73$), including Leadership/ Authority (4 items; $\alpha = .66$), Grandiose/ Exhibitionism (5 items; $\alpha = .65$), and Entitlement/ Exploitativeness (4 items; $\alpha = .51$). The NPI-13 was highly correlated with the original NPI-40 ($r = .90, p < .001$). The NPI-13 demonstrated good convergent and discriminant validity (Gentile et al., 2013). For the current sample, Cronbach's alphas were NPI-13 ($\alpha = .77$), Leadership/ Authority ($\alpha = .62$), Grandiose/ Exhibitionism ($\alpha = .65$), and Entitlement/ Exploitativeness

($\alpha = .57$). For discriminant validity with self-trust, the researcher predicted a weak correlation with narcissistic personality.

M-C SDS. The MC-SDS is the most widely used social desirability scale (Beretvas et al., 2002; Leite & Beretvas, 2005). The MC-SDS is a 33-item scale that utilizes a true/ false response type. The original scale was tested on a sample of 76 undergraduate psychology students. The scale had an acceptable reliability of .88 using the Kuder–Richardson Formula 20 (KR-20) and a .89 test-re-test correlation with a one-month interval (Crowne & Marlowe, 1960). In the current sample, the KR-20 is .67. A score of zero to eight indicates low social desirability, a score of nine to 19 indicates average social desirability, and a score of 20 to 33 indicates high social desirability. Individuals with higher social desirability scores may be less likely to respond honestly on instruments due to concern about social approval (Crowne & Marlowe, 1960).

Data Analysis

Exploratory factor analysis (EFA), internal consistency, criterion-related validity, convergent validity, discriminant validity, and impression management were examined. The EFA was guided by a priori guidelines (Comrey & Lee, 1992; Williams et al., 2010). Factor analysis is important for construct validity in self-report scales, reduction of a large number of items into smaller sets of variables (i.e., factors), and theoretical refinement through establishing relationships between factors and the latent construct. EFA is a heuristic process that allows for the exploration of the main factors represented by the items. Pragmatic decision-making is utilized for factor extraction, with tools including Bartlett's Test of Sphericity, Kaiser-Meyer-Olkin's (KMO) test, Kaiser's criteria, scree plot inspection, and rotational methods. A maximum likelihood estimation

with varimax rotation, which assumes that the constructs are unrelated, is used to assist with determining the factor model (Williams et al., 2010). Factor analysis is a guide for decision-making and should not supersede investigator judgement (DeVellis, 2017).

A Bartlett's (1951) Test of Sphericity that is statistically significant indicates that the variables are related and appropriate for factor analysis. The KMO test assesses the plausibility of factor analysis by examining partial correlation strength between factors, with values nearing one considered to be ideal (Kaiser, 1974). Communalities are indicators for the variable's accounted for variance. As the factors better explain the variable, the communalities will approach one, and communality values of .4 and higher are considered acceptable (Osborne et al., 2008).

Eigenvalues are used as a measure of the common variance a factor explains of the observed variable (Zopluoglu & Davenport, 2017). Kaiser's (1960) Rule indicates the retention of factors with eigenvalues greater than one. Scree tests plot eigenvalues against the dimension and the slope uniformly decreases once the remaining variance is randomly accounted (Zopluoglu & Davenport, 2017).

Rotation produces a solution that is simple and interpretable (Williams et al., 2010). Thompson's (2004) Varimax rotation is commonly used. In the Varimax rotation, factor structures are uncorrelated. High item loadings are maximized and low item loadings are minimized. A minimum of two to three items per factor is recommended. The rotated solution with best factorial suitability and conceptual fit is selected for use. Factors are labeled subjectively, according to theory and induction (Williams et al., 2010).

Cronbach's alphas were used to analyze reliability. A Cronbach's alpha of .7 or higher is acceptable for internal consistency (Cronbach, 1951). Three forms of validity were included in this study: criterion, convergent, and discriminant. Regressed factor scores and bivariate correlations were used for validity estimates. Higher correlations represented stronger criterion and convergent validity and weaker correlations represented stronger discriminant validity.

Results

In an early screening for impression management, the data were filtered for high social desirability based on the cutoff score of 20 on the MC-SDS. Of the 692 participants, 320 participants (46.2%) were at or above the cutoff score of 20. When running initial analyses with the filtered scores only compared with the full sample, filtering out the respondents who scored in the high range for social desirability using the M-C SDS did not make a difference on the results. Thus, all of the responses were retained to preserve sample size.

An exploratory factor analysis (EFA) was performed using SPSS Version 28. Comrey and Lee's (1992) a priori factor loading guidelines were utilized for item reduction by factor, with factor loading cutoffs of .32 as poor, .45 as fair, .55 as good, .63 as very good, and .71 as excellent. Bartlett's Test of Sphericity was statistically significant ($\chi^2=10241.569$, $df=406$, $p < .001$). The KMO measure of sampling adequacy was .946, which indicated a likely factorability of variables. A communalities screener used to estimate underlying relationships within the matrices revealed generally acceptable estimates, with values ranging from .363 to .679. Small coefficients .4 or lower were suppressed. Items that did not load to a factor, and items that loaded at .4 or

higher on two or more factors were removed. Using the above criteria and Kaiser's (1960) Rule, a simple five-factor solution emerged (see Table 7), evidenced by initial eigenvalues greater than one and a visual inspection of the scree plot. The five factors accounted for 54.10% of shared variance.

Factor One accounted for 34.35% of variance, composed of five items appearing to measure the Nonjudgement (N) variable. Factor Two accounted for 9.21% of variance, composed of five items appearing to measure the Integrity (I) variable. Factor Three accounted for 3.97% of variance, composed of six items (i.e., three Reliability items and three Accountability items) appearing to measure the Reliability-Accountability (RA) variable. Factor Four accounted for 3.60% of variance, composed of five items appearing to measure the Vault (V) variable. Factor Five accounted for 2.33% of variance, composed of five items appearing to measure Generosity (G) variable.

This factor model departed slightly from Brown's (2015, 2017, 2018, 2021) BRAVING model. The Boundaries items did not load. Upon review with a content expert, there are several possible theoretical explanations for this. Within the self-trust construct, boundaries may be adequately represented by the other scales. It may be difficult to measure the boundaries aspect of self-trust, as boundaries are unique to each person. Further, even though there is an intrapersonal process for determining boundaries, boundaries are typically influenced by and enforced within interpersonal contexts. Given these analytical and theoretical considerations, we have determined not to proceed with measuring the Boundaries element of self-trust at this time. In the EFA, the Reliability and Accountability items loaded together. Theoretically, Reliability and Accountability may be considered as related constructs since Reliability indicates one's likelihood to

follow-through and be consistent with behaviors, while Accountability is the way one takes ownership and responsibility for that follow-through and consistency of behaviors, or lack thereof. For the purpose of this self-trust instrument, these changes (i.e., dropping Boundaries and combining Reliability-Accountability) were approved by a content expert and we will proceed with the 26-item RA-VING Self-Trust instrument (RSTI).

The factors appeared to provide evidence of reliability ($\alpha > .7$). The Cronbach's alpha for the RA factor was .85. The Cronbach's alpha for the V factor was .81. The Cronbach's alpha for the I factor was .85. The Cronbach's alpha for the N factor was .90. The Cronbach's alpha for the G factor was .83. The internal consistency for the entire RSTI was .93 (see Table 8).

Regressed factor scores from the EFA were used for validity estimates. A regression with the RA-VING factors as predictors for the SCS-R scores, was performed to assess the factor-level criterion-related validity. The model was statistically significant, $F(5, 680) = 38.88, p < .001$ and accounted for 22.20% of the variance in social connectedness ($R^2 = .222; p < .001$). The beta coefficients were Reliability-Accountability (RA; $\beta = .140, p < .001$), Vault (V; $\beta = .029, p < .399$), Integrity (I; $\beta = .204, p < .001$), Nonjudgement (N; $\beta = .231, p < .001$), and Generosity (G; $\beta = .264, p < .001$). All of the factors were statistically significant, with the exception of Vault. For every one unit increase in RA, there was a .14 unit increase in social connectedness. For every one unit increase in I, there was a .20 unit increase in social connectedness. For every one unit increase in N, there was a .23 unit increase in social connectedness. For every one unit increase in G, there was a .27 unit increase in social connectedness. These

findings support the theoretical hypothesis that self-trust is a foundation of trust in others in adulthood.

Bivariate correlations between the regressed factor scores and the SCS-SF were performed to assess the factor-level convergent validity. The self-compassion composite scores were predicted to have positive correlations with all of the self-trust sub-scales. In particular, the self-kindness sub-scale of the SCS-SF was predicted to have strong positive correlations with the Nonjudgement and Generosity factors of self-trust. While Generosity did have a strong positive correlation with self-kindness ($r = .55$); Nonjudgement only had a moderate positive correlation with self-kindness ($r = .33$). While all of the self-trust factors were significantly, positively correlated with self-compassion, with the exception of Generosity; the self-trust factors did not have strong correlations with the composite self-compassion scores: RA ($r = .16$), V ($r = .12$), I ($r = .16$), N ($r = .16$), and G ($r = .45$).

Bivariate correlations between the regressed factor scores and the NPI-13 sub-scales were performed to assess the factor-level discriminant validity. As expected, the NPI-13 factors generally had weak correlations with the RA-VING Self-Trust Factors; however, the correlations between the Grandiose/ Exhibitionism and Leadership/ Authority factors of the NPI-13 were moderately correlated with the Generosity factor of self-trust. Correlations with the Leadership/ Authority NPI-13 sub-scale were: RA ($r = .10$), V ($r = .10$), I ($r = .05$), N ($r = .10$), and G ($r = .24$). Correlations with the Grandiose/ Exhibitionism NPI-13 sub-scale were: RA ($r = -.02$), V ($r = -.03$), I ($r = .02$), N ($r = .19$), and G ($r = .35$). Correlations with the Entitlement/ Exploitativeness NPI-13 sub-scale were: RA ($r = -.08$), V ($r = -.06$), I ($r = -.11$), N ($r = .03$), and G ($r = .15$).

A maximum likelihood estimation with varimax rotation determined that this is not a correlated factors model. This was confirmed with bivariate correlations among factors (see Table 9). The confirmatory factor analysis (CFA) will test a higher order model. As the factors appear to be distinct constructs that together comprise self-trust; instruments for validity estimates in the CFA will be selected for the individual factors versus the overall self-trust construct. In the EFA, three and four-factor models were used as comparative models for reference with the competing five-factor model and the five-factor model was the best fit (see Tables 10 and 11). The three and four-factor models will be used for comparative models in the CFA.

Dissertation Study (Study Three): Confirmatory Factor Analysis (CFA)

The dissertation study, Study Three, was a confirmatory factor analysis for the 26-item RA-VING Self-Trust instrument (RSTI; see Appendix C). The purpose of the CFA was to confirm the factor structure of the RSTI, as determined by the EFA. Additionally, the CFA tested a higher order model. Study Three also included reliability (i.e., internal consistency) and validity (i.e., convergent and discriminant). The instrument's reliability and validity were assessed on a factor-level. The following sections describe the dissertation study in detail.

Research Questions

The research questions that guided Study Three were:

- (1) What is the factor structure of the RSTI?
 - a. Do these data provide a good fit to the proposed structure of the RSTI?
- (2) What is the evidence for the reliability of the RSTI scores?

- a. Do the scores of the RSTI demonstrate adequate evidence of internal consistency?

(3) What is the evidence for the validity of the RSTI scores?

- a. Do the RSTI scores demonstrate adequate evidence of convergent and discriminant validity?

Participants

The researcher used Qualtrics Online Sample Team, with project management contracted through Ugam, to recruit a national sample of 250+ adults. The final sample consisted of 261 participants. Eligibility criteria included living in the USA, being at least 18-years-old, and fluency in the English language. Ugam ensured that the sample was reflective of select national demographics. The researcher collected demographic information, including highest level of education, marital status, employment status, and household income.

Sampling

Ugam used quota sampling, a non-probability sampling method, to reflect national population demographics for adults based on age, gender, and race. Ugam recruited the sample from research panels to ensure a representative and diverse data set. This sampling method was consistent with the sampling method from Study One and Study Two.

Sample. Of the sample of 261 participants, 135 identified as female (51.7%), 125 identified as male (47.9%), and one identified as non-binary (0.4%). The racial demographics of the sample were 61.7% White ($n=161$), 14.2% Hispanic or Latino/a ($n=37$), 11.1% Black or African American ($n= 29$), 4.6% Asian or Pacific Islander

($n=12$), 2.7% Native American or American Indian ($n= 7$), 4.2% Bi-Racial or Multi-Racial ($n= 11$), 1.1% Other Racial Identity ($n= 3$), and 0.4% prefer not to answer ($n= 1$). Participants were approximately 44-years-old ($M = 45.18$, $SD = 17.17$), with ages ranging from 18 to 94. Education levels of participants were 2.3% some high school ($n= 6$), 26.4% high school degree or GED ($n= 69$), 19.9% some college ($n= 52$), 13.4% associate's degree ($n= 35$), 21.5% bachelor's degree ($n= 56$), 10.7% master's degree ($n= 28$), 0.4% specialist's degree ($n= 1$), 1.1% professional doctorate ($n= 3$), 1.9% Ph.D. ($n= 5$), 1.9% trade school/ technical school/ vocational training ($n= 5$), and 0.4% prefer not to answer ($n= 1$). Marital statuses of the participants were 35.6% single ($n= 93$), 7.7% long-term relationship ($n= 20$), 4.6% domestic partnership ($n= 12$), 30.7% married ($n= 80$), 2.3% separated ($n= 6$), 14.6% divorced ($n= 38$), 4.2% widowed ($n= 11$), and 0.4% other ($n= 1$). Employment statuses of participants were 15.7% part-time ($n= 41$), 36.4% full-time ($n= 95$), 5% self-employed ($n= 13$), 8.8% out of work and looking for work ($n= 23$), 0.4% out of work but not looking for work ($n= 1$), 3.8% homemaker ($n= 10$), 3.8% student ($n= 10$), 17.6% retired ($n= 46$), 7.7% unable to work ($n= 20$), 0.4% other (i.e., missionary; $n= 1$), and 0.4% prefer not to answer ($n= 1$). Income levels of participants were 12.3% below \$10,000 ($n= 32$), 41.4% \$10,000 to \$49,000 ($n= 108$), 25.7% \$50,000 to \$99,999 ($n= 67$), 9.2% \$100,000 to \$149,999 ($n= 24$), 7.7% \$150,000 and above ($n= 20$), and 3.8% prefer not to answer ($n= 10$).

Procedures

The UGA IRB approved Study Three. After IRB approval, Ugam made the survey available to panel members (i.e., potential participants), who either signed in through a panel portal or received an email invitation to proceed with the survey via a

hyperlink (Qualtrics, 2021). The survey was administered online using the Qualtrics platform. Participants were offered to receive various incentives for survey completion (e.g., cash, airline miles, gift cards, redeemable points, charitable donations, sweepstakes entrance, or vouchers). The average respondent received about \$1.00 in compensation.

In addition to the survey materials, described below, the survey included a quality check question asking participants to commit to provide their best answers. Forced response validation was added to the age, gender, and race questions on the demographic form to ensure eligibility and sample quotas. For all other questions, request response validation was added. One attention check question was included in the survey, and survey logic was added to terminate the survey for participants who failed the attention check. Data collection started with a soft launch for an initial collection of 20 responses. Following the soft launch, a speeding check was added for half the median soft-launch response time.

Survey Materials

Survey materials included an informed consent letter (see Appendix R), demographic questionnaire (see Appendix S), and the 26-item RA-VING Self-Trust Instrument (RSTI; see Appendix T). The informed consent document was the first page of the online survey. It detailed the purpose of the study, nature of participation, risks and benefits, contact information of the PIs, incentive associated with participation, and other relevant details to inform participants' decision-making. By continuing participation in the online questionnaire, the participants indicated their consent, as noted on the Informed Consent page.

Additional measures were added for convergent and discriminant validity. The General Self-Efficacy Scale (GSE; Schwarzer & Jerusalem, 1995; see Appendix U) was selected for convergent validity with the RA factor. The researcher selected the Privacy Orientation Scale (Baruh & Cemalcılar, 2014; see Appendix V) as a measure for convergent validity with the V factor. The Integrity Scale (Schlenker, 2008; see Appendix W) was selected for convergent validity with the I factor. The Distress Disclosure Index (DDI; Kahn & Hessling, 2001; see Appendix X) was selected for convergent validity with the N factor. The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1989; see Appendix Y) was selected for convergent validity with the G factor. The Big Five Inventory (BFI; John & Srivastava, 1999; John et al., 2008; see Appendix Z) was selected for discriminant validity and was compared and contrasted across the five factors.

GSE

The GSE is a 10-item self-report measure of self-efficacy. The GSE uses a four-point Likert scale response format. The scale is unidimensional. The total score is a sum of all items, with higher scores indicating higher self-efficacy (Schwarzer & Jerusalem, 1995). Across global samples, the scale had good reliability, with Cronbach's alphas ranging from .75 to .91 (Scholz et al., 2002). For the current sample, Cronbach's alpha was .89. In previous research, the scale demonstrated validity through positive associations with self-esteem, self-regulation, optimism, and academic performance, as well as negative associations with depression and anxiety (Luszczynska et al., 2004). For convergent validity with the Reliability-Accountability (RA) factor of self-trust, the

researcher predicted a statistically significant, moderate to strong, positive correlation with self-efficacy.

Privacy Orientation Scale

The Privacy Orientation Scale is an 18-item scale that uses a five-point Likert scale response format. The scale demonstrated good reliability by factor. The Privacy Orientation Scale has four dimensions, including privacy as a right ($\alpha = .83$), concern about own informational privacy ($\alpha = .83$), other-contingent privacy ($\alpha = .85$), and concern about privacy of others ($\alpha = .88$; Baruh & Cemalcilar, 2014). For the current sample, Cronbach's alpha for the Privacy Orientation Scale was .86 and concern about own informational privacy was .78. For convergent validity with Vault (V) factor of self-trust, the researcher predicted a statistically significant, positive correlation with the privacy orientation total score and a statistically significant, strong positive correlation with the concern about own informational privacy dimension in particular.

Integrity Scale

The Integrity Scale is a unidimensional, 18-item scale used to measure integrity. The scale is scored using a five-point Likert-scale response format. To obtain the total score, six of the items are reverse-scored and then the scores for all items are summed. Higher total scores are considered to represent principled ideologies; whereas lower total scores represent expedient ideologies. The Integrity Scale's psychometric properties are acceptable with Cronbach's alphas ranging from .84 to .90 in five samples and test-re-test reliabilities of .82 to .72 with intervals between two to 12 weeks (Schlenker, 2008). In the current sample, Cronbach's alpha was .73. For convergent validity with the Integrity (I)

factor of self-trust, the researcher predicted a statistically significant, strong positive correlation with the Integrity Scale scores.

DDI

The DDI is a unidimensional 12-item scale that measures disclosure versus concealment of information that is personally distressing. The scale uses a five-point Likert-scale response format. Half of the items are reverse-scored, then the items are summed for a total score, with higher scores indicating tendency to disclose and lower scores indicating tendency to conceal. Internal consistency was .94 and the DDI demonstrated convergent and discriminant validity (Kahn & Hessling, 2001). For the current sample, Cronbach's alpha was .91. For convergent validity with the Nonjudgement (N) factor of self-trust, the researcher predicted a statistically significant, moderate to strong, positive correlation with the DDI scores.

RSES

The RSES (Rosenberg, 1965, 1989) is a 10-item scale used to measure self-esteem. The scale uses a four-point Likert-scale response format. Half of the items are reverse-scored. Item scores are summed for a total score, with higher scores indicating higher self-esteem. The scale has high reliability with Cronbach's alphas ranging from .77 to .88 and test-re-test reliabilities from .82 to .88 (Blascovich & Tomaka, 1993; Rosenberg, 1986). For the current sample, Cronbach's alpha was .89. For convergent validity with the Generosity (G) factor of self-trust, the researcher predicted a statistically significant, moderate to strong, positive correlation with the RSES scores.

BFI

The BFI is a 44-item multidimensional personality inventory. The five dimensions include extraversion, agreeableness, conscientiousness, neuroticism, and openness. Scales for each dimension are scored by calculating the average, after reverse-scoring 16 of the items. The BFI is psychometrically sound (John & Srivastava, 1999; John et al., 2008). For the current sample, Cronbach's alphas were extraversion ($\alpha = .80$), agreeableness ($\alpha = .77$), conscientiousness ($\alpha = .80$), neuroticism ($\alpha = .87$), and openness ($\alpha = .75$).

While the BFI was selected primarily for discriminant validity, comparing RSTI scale scores with BFI scale scores is expected to support both convergent and discriminant validity. For discriminant validity, the researcher generally predicted that the weakest relationships would be between the BFI Neuroticism scale and RSTI scales, as well as between the RSTI Vault scale and BFI scales. The researcher's predictions for the relationships (i.e., positive/ negative, weak/ moderate/ strong) between the RSTI and BFI scales are detailed in Table 12.

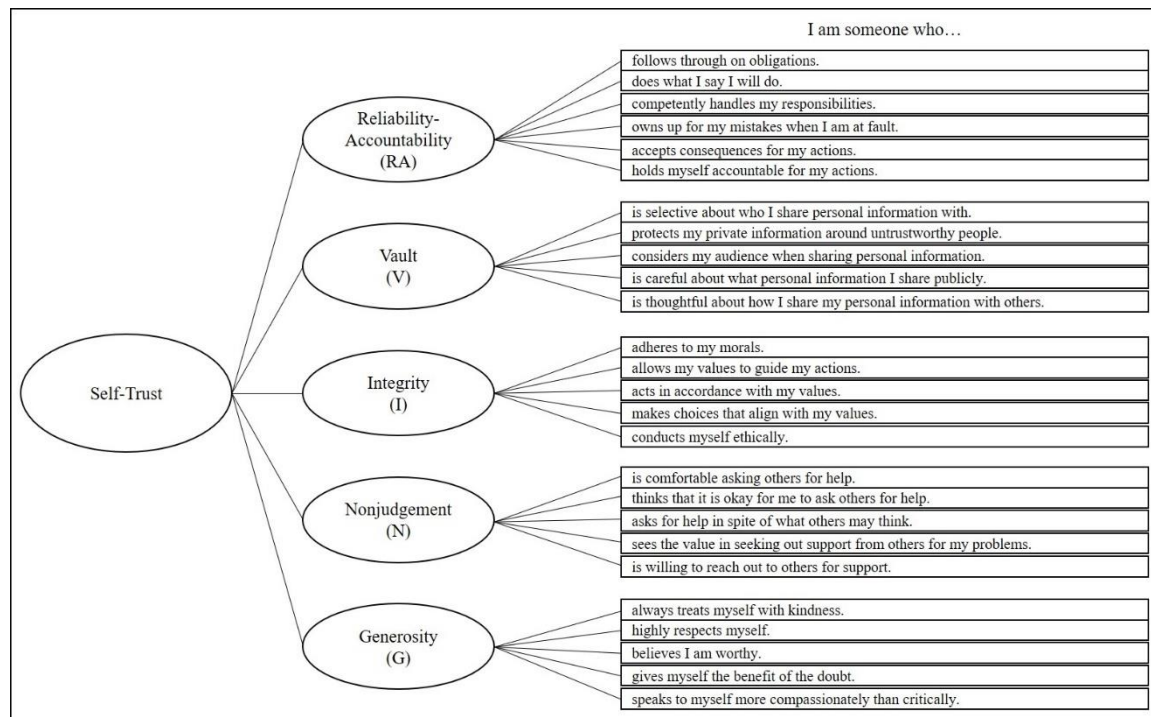
Data Analysis

A CFA was conducted to explore and validate confirmatory estimates. The researcher examined if factor loadings were as predicted based on the EFA and the theoretical model. The CFA used structural equation modeling to test the proposed measurement model, which, in this case, was the expectation of the five factors from the EFA (i.e., RA, V, I, N, and G), derived from Brown's (2015, 2017, 2018, 2021) BRAVING model. The researcher performed a likelihood ratio test to compare the goodness of fit for the data between the five-factor hypothesized model and the four- and

three-factor comparative models. The CFA tested a higher order model, depicted below in Figure 2.

Figure 2

Hypothesized higher order model of self-trust.



Reliability was analyzed using Cronbach's alphas and inter-item total correlations (Cronbach, 1951). Convergent validity was determined by analyzing the correlation between scores on a developmental measure and another instrument that measures a related construct. Conversely, for discriminant validity, the researcher chose to compare the developmental measure scores with the scores of another instrument that the developmental measure was not likely to correlate with. The researcher made priori hypotheses about the correlations, or lack thereof, based on a logical relationship between the constructs (Bannigan & Watson, 2009). Similarities between theoretically related constructs and absence of correlation between theoretically unrelated constructs provided

evidence of how the developmental measure behaves and how well it measures the intended variable (DeVellis, 2017). These analyses correspond with Research Question Three.

Summary

This chapter reviewed the methodology for the initial development of the RSTI. The chapter included an overview of item development, a pilot study, and an EFA study, which served as the foundation for the current investigation. The current study includes factor structure, reliability, and validity of the RSTI. Details about the research questions, participants, sample, procedures, instrumentation, and data analysis for the current investigation are included in the sections above. This concluded initial item production and launches psychometric evaluation in the instrument development process.

CHAPTER 4

RESULTS

Introduction

The purpose of this study was to begin developing and validating an instrument to measure self-trust in adults. The current study completed step eight and began step nine of Crocker and Algina's (2008) systematic process of developing a test, including determining statistical properties of item scores and conducting reliability and validity studies. Specifically, confirmatory factor analysis was performed, and the instrument's scores were assessed for reliability and validity.

Data Screening

Data screening was conducted prior to the analysis. Data were screened for (a) missing values, (b) univariate and multivariate normality, (c) univariate and multivariate outliers, and (d) linearity, multicollinearity, and singularity. SPSS Version 28 was used.

Missing Values

A missing value analysis was conducted to determine whether missing data was at random. Two respondents were removed from the sample due to skipping a page. After deleting these two respondents, missing value analysis for the sample revealed that less 1% of the data was missing. Little's MCAR test suggested that the data was missing completely at random ($\chi^2 = 433.066$, $df = 405$, $p = .162$). Multiple imputation was performed to replace missing values with plausible values based upon the distribution of the observed data, and the fifth iteration of these data was selected for all analyses.

Normality

The researcher examined the normal probability plots and histograms, as well as skewness and kurtosis values, for each factor to determine if the data was normally distributed. The plots revealed that there were no substantial departures from normality. Skewness values were in the accepted range between 2 and -2 (i.e., RA: -.38, V: -.61, I: -.65, N: -.59, and G: -.51) and kurtosis values were in the accepted range between 4 and -4 (i.e., RA: -.45, V: -.13, I: .11, N: -.05, and G: -.15; Tabachnick & Fidell, 2007).

Outliers

The researcher explored each variable for univariate and multivariate outliers by examining the boxplots, trimmed means, and Mahalanobis distance. Four multivariate outliers were detected and removed. Examination of boxplots resulted in the detection of 19 univariate outliers across all variables. Specifically, two univariate outliers were detected for RA, four for V, five for I, two for N, and six for G. When comparing the mean to the trimmed mean, it was determined that the univariate outliers were not influential to the data and were therefore retained in the dataset.

Linearity, Multicollinearity, and Singularity

Bivariate correlations and scatterplots were used to examine patterns between variables and to assess for linearity among the variables under study. The bivariate correlations between each pair of variables were significant at the .01 level. The scatterplots revealed that there were linear relationships between all of the variables under study. These results indicated that the assumption of linearity was met for the sample.

Bivariate correlations, variance inflation factors (VIF), and values of tolerance were examined to assess multicollinearity and singularity. There were no correlations greater than .90 (i.e., values ranged from .18 to .72). VIF values were below 10 and approaching one (i.e., between 1.52 and 1.79). The values of tolerance were greater than .10 (i.e., between .56 and .66). These results suggested that multicollinearity and singularity were not present.

Results

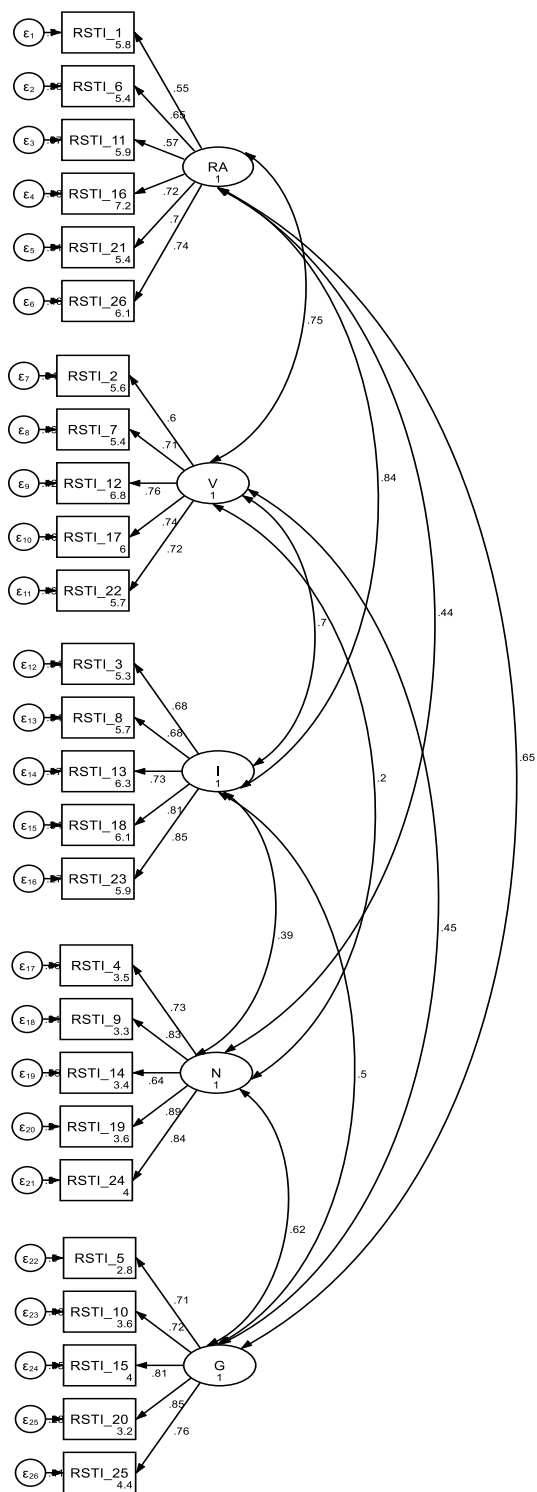
A confirmatory factor analysis (CFA) was utilized to confirm the factor structure of the 26-item RA-VING Self-Trust instrument (RSTI), as determined by the exploratory factor analysis (EFA), and to test a hypothesized higher order model. Internal consistency was used to evaluate reliability. Construct validity (i.e., convergent and discriminant) was assessed among the five factors.

Confirmatory Factor Analysis

A CFA was performed on the RSTI scores to examine if the factor loadings were as predicted based on the EFA and theoretical model. The CFA, conducted in Stata Basic Edition Version 17, used structural equation modeling to test a higher order model with the five factors (i.e., RA, V, I, N, and G), derived from Brown's (2015, 2017, 2018, 2021) BRAVING model. These data did not converge for a higher order model, as was predicted. Upon re-specifying the model (Crockett, 2012), a bi-factor model and correlated factors model were tested. Like the higher order model, the bi-factor model did not converge. Instead, the CFA revealed a correlated factors model, depicted below in Figure 3.

Figure 3

Correlated factors model with five factors.



In the five-factor model, all parameter estimates were statistically significant ($p < .001$), and the standardized loadings ranged from .55 to .74 for Reliability-Accountability, .60 to .76 for Vault, .68 to .85 for Integrity, .64 to .89 for Nonjudgement, and .71 to .85 for Generosity, which demonstrated acceptable convergent validity. A summary of the standardized loadings is listed in Table 16. The covariance estimates demonstrated moderate to strong relationships between each of the factors, with the exception of Vault and Nonjudgement (see Table 17).

A maximum-likelihood method was used to estimate the five-factor model. The goodness of fit of the model was assessed using five fit indices: chi-square, root-mean-square error of approximation (RMSEA), comparative fit index (CFI), Tucker-Lewis Index (TLI), and Standardized Root Mean Square Residual (SRMR). Values that indicate acceptable fit to the data are suggested to be .90 or higher for CFI and TLI, .08 or lower for the RMSEA, and less than .08 for SRMR (Hu & Bentler, 1999; Kline, 2016). For the five-factor RA-VING model, the fit indices were: $\chi^2(289) = 684.40$, $p < .001$; RMSEA = .07; CFI = .90; TLI = .88; SRMR = .06. The fit was largely adequate; however, the TLI estimate was approaching acceptable fit.

Four-factor and three-factor measurement models were then estimated to allow comparisons of the goodness of fit of these models against the hypothesized five-factor model. The four-factor comparative model is depicted below in Figure 4. The three-factor comparative model is depicted below in Figure 5.

Figure 4

Four-factor comparative model.

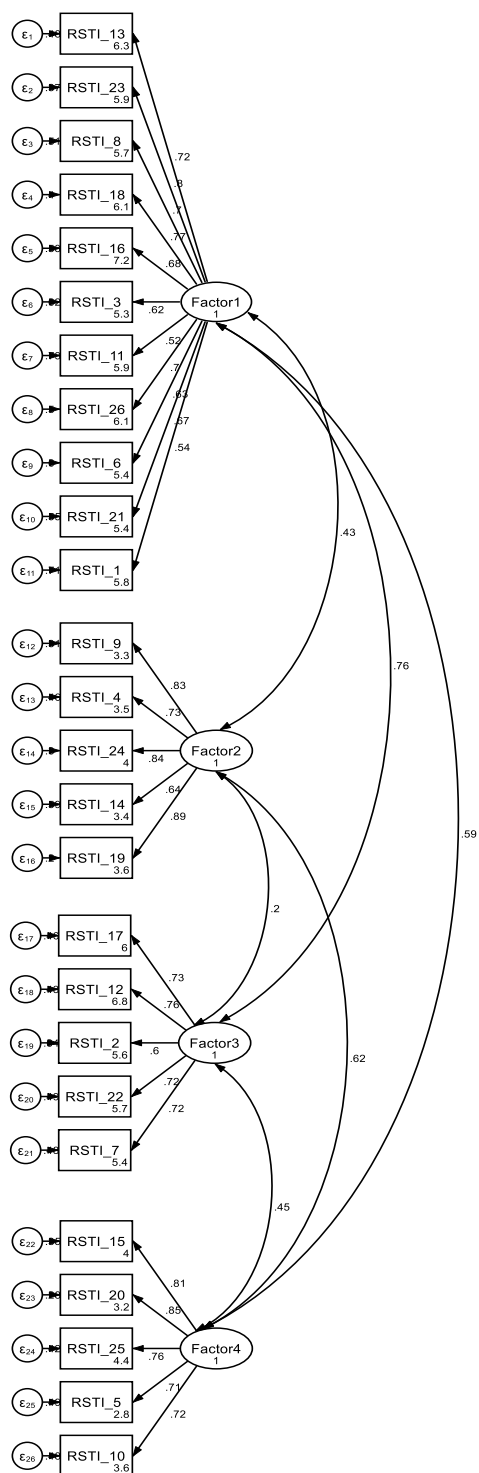
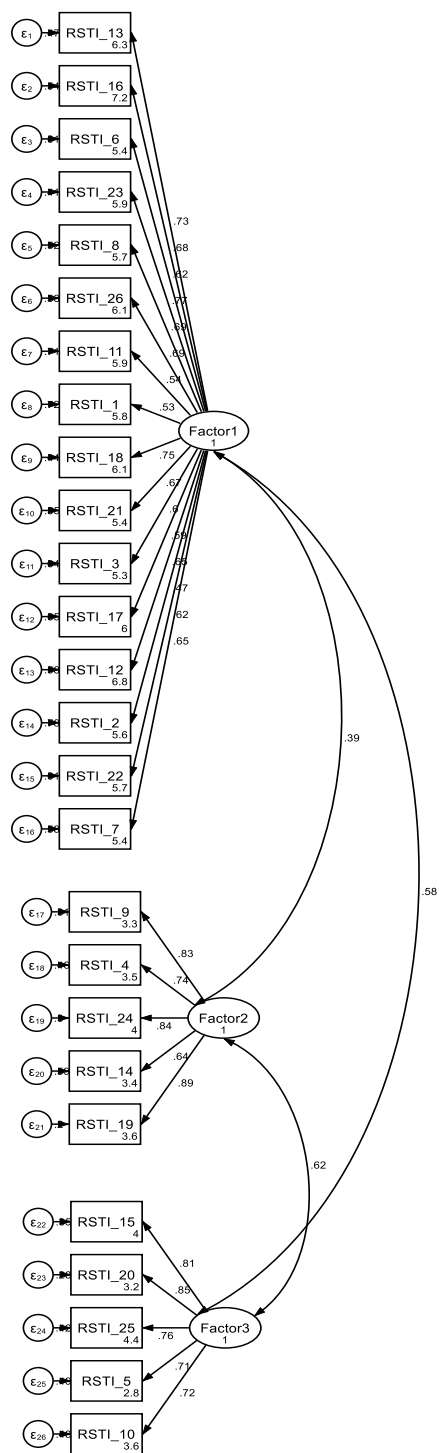


Figure 5

Three-factor comparative model.



For the four-factor model, the fit indices were: $\chi^2(293) = 751.21, p < .001$; RMSEA = .08; CFI = .88; TLI = .87; SRMR = .06. For the three-factor model, the fit indices were: $\chi^2(296) = 889.65, p < .001$; RMSEA = .09; CFI = .84; TLI = .83; SRMR = .07. Both comparative models were poorer fits for the data than the five-factor model, with the four-factor model performing better than the three-factor model, but still only approaching acceptable fit for the CFI estimate and not demonstrating acceptable fit for the TLI estimate.

The researcher performed a likelihood ratio test to compare the goodness of fit for the data between the five-factor hypothesized model and the four- and three-factor comparative models. The likelihood ratio test indicated that the five-factor model had a statistically significant chi-square value than the four-factor model (LR $\chi^2(4) = 66.81; p < .001$) and the three-factor model (LR $\chi^2(7) = 205.25; p < .001$). These results supported the retention of the five-factor model as the best fitting model.

Internal Consistency of the RSTI

Cronbach's alphas were used to analyze reliability of the RSTI factors and were calculated using SPSS Version 28. A value of .70 is the accepted lower bound for alpha (Nunnally, 1978) and .90 is the recommended an upper bound for alpha, as alphas over .90 are likely a sign of redundancy (Streiner, 2003). The Cronbach's alpha for the RA factor was .81. The Cronbach's alpha for the V factor was .83. The Cronbach's alpha for the I factor was .86. The Cronbach's alpha for the N factor was .89. The Cronbach's alpha for the G factor was .88 (see Table 13).

Inter-item correlations were used to assess the extent to which the items in each sub-scale measured the same construct. Correlation coefficients around .4 or .5 are

recommended, with means below .15 indicating that the construct may be too broad and means above .5 indicating that the items may be redundant (Clark & Watson, 1995). For the RA subscale, the inter-item correlations ranged from .27 to .57, with an average of .43. For the V subscale, the inter-item correlations ranged from .40 to .60, with an average of .50. For the I subscale, the inter-item correlations ranged from .40 to .72, with an average of .56. For the N subscale, the inter-item correlations ranged from .47 to .76, with an average of .62. For the G subscale, the inter-item correlations ranged from .52 to .70, with an average of .59 (see Table 14).

Convergent and Discriminant Validity

Convergent and discriminant validity were assessed among the factors. Bivariate correlations between the RSTI scores and the validity measure scores were performed to assess convergent and discriminant validity. Higher correlations were indicative of stronger convergent validity and weaker correlations were indicative of stronger discriminant validity.

The General Self-Efficacy Scale (GSE; Schwarzer & Jerusalem, 1995) was selected for convergent validity with the RA factor. The researcher predicted a statistically significant, moderate to strong, positive correlation with self-efficacy. The bivariate correlation between the regressed factor score for RA and the GSE total score resulted in a statistically significant, moderate, positive association ($r = .56$).

The researcher selected the Privacy Orientation Scale (Baruh & Cemalcılar, 2014) as a measure for convergent validity with the V factor. The researcher predicted a statistically significant, positive correlation with the privacy orientation total score and a statistically significant, strong positive correlation with the concern about own

informational privacy dimension in particular. While the bivariate correlation between the regressed factor score for V and the concern about own informational privacy dimension resulted in a statistically significant, weak-moderate, positive association ($r = .24$), there was a statistically significant, moderate, positive association between V and the Privacy Orientation Scale total score ($r = .51$).

The Integrity Scale (Schlenker, 2008) was selected for convergent validity with the I factor. The researcher predicted a statistically significant, strong positive correlation with the Integrity Scale scores. The bivariate correlation between the regressed factor score for I and the Integrity Scale total score resulted in a statistically significant, moderate, positive association ($r = .41$).

The Distress Disclosure Index (DDI; Kahn & Hessling, 2001) was selected for convergent validity with the N factor. The researcher predicted a statistically significant, moderate to strong, positive correlation with the DDI scores. The bivariate correlation between the regressed factor score for N and the DDI total score resulted in a statistically significant, moderate, positive association ($r = .38$).

The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1989) was selected for convergent validity with the G factor. The researcher predicted a statistically significant, moderate to strong, positive correlation with the RSES scores. The bivariate correlation between the regressed factor score for G and the RSES total score resulted in a statistically significant, strong, negative association ($r = -.65$).

The Big Five Inventory (BFI; John & Srivastava, 1999; John et al., 2008) was selected for discriminant validity. The correlations between the BFI and RSTI factors were compared and contrasted. The researcher generally predicted that the weakest

relationships would be between the BFI Neuroticism scale and RSTI scales, as well as between the RSTI Vault scale and BFI scales. For discriminant validity, the overall weakest associations were between the BFI Extraversion factor with the RSTI Vault ($r = .08$) and Integrity ($r = .17$) factors, the BFI Neuroticism factor with the RSTI Vault ($r = -.15$) and Integrity ($r = -.16$) factors, and the BFI Openness factor with the RSTI Integrity ($r = .19$) and Nonjudgement ($r = .19$) factors. For an overview of the researcher's predictions compared to results for discriminant and convergent validity between the BFI and RSTI factors, see Table 15.

Summary

The purpose of this study was to begin developing and validating an instrument to measure self-trust in adults. The current study included psychometric evaluation and analysis of initial reliability and validity for the RSTI scores. The data screening process was detailed in the initial section. The subsequent section included the results of the confirmatory factor analysis, as well as reliability (i.e., internal consistency) and validity (i.e., convergent and discriminant) studies.

The CFA confirmed the five-factor structure of the RSTI from the EFA. The data demonstrated adequate fit to the five factors in comparison to four-factor and three-factor models. The researcher tested a higher order model; however, the CFA revealed a correlated factors model.

The researcher presented initial evidence to support the reliability of the RSTI. The RSTI demonstrated very good internal consistency utilizing Cronbach's alphas and inter-item correlations. The researcher presented initial evidence to support the validity of the RSTI. The factors of the RSTI generally demonstrated expected relationships with the

convergent and discriminant validity measures, with the exception of Generosity and Self-Esteem.

CHAPTER 5

DISCUSSION AND IMPLICATIONS

Introduction

The purpose of this study was to confirm the factor structure and evaluate the reliability and validity of the RA-VING Self-Trust Instrument (RSTI), a new instrument to measure self-trust in adults. The initial development of the RSTI was guided by Crocker and Algina's (2008) application of classical test theory and Brown's (2015, 2017, 2018, 2021) model of self-trust, which includes the following elements: boundaries, reliability, accountability, vault, integrity, nonjudgement, and generosity (BRAVING). This chapter includes an overview of the study, discussion of the results of the analyses from steps eight and nine in Crocker and Algina's (2008) instrument development process (i.e., determining statistical properties of item scores and conducting reliability and validity studies), contributions of the study, limitations of the study, implications of the study, and recommendations for future research.

Overview of the Study

Self-trust is a type of trust that has been identified in the research as having an important role in early attachment, psychosocial development (Erikson, 1963), psychological security (Skripkina et al., 2020), successful functioning (Danilova, 2019), personal growth (Sideroff & Angel, 2013), worthiness, authenticity (Govier, 1993), trust with others (Brown, 2017), and meaningful existence (Govier, 1993). Despite the considerable implications of its importance, self-trust is difficult to understand (Goering,

2009). Given that trust is necessary for psychological health and interpersonal functioning (Skripkina et al., 2020), counselors would benefit from understanding self-trust as it pertains to mental health and wellness. Unfortunately, the empirical investigation of self-trust is generally limited (Brothers, 1982; Danilova, 2019; Skripkina et al., 2020) and is almost nonexistent in counseling literature. Measurement is fundamental to acquire knowledge in social science (DeVellis, 2017); however, instruments to measure self-trust are lacking, likely contributing to the dearth of empirical investigation and body of knowledge on self-trust. To address this, the researcher sought to conceptualize self-trust and developed a new, empirically-tested instrument to measure self-trust in adults, the RSTI. The aim of this study was to confirm the factor structure, validity, and reliability of the RSTI.

Aligned with Crocker and Algina's (2008) instrument development process and prior to the current study, the researcher engaged in construct conceptualization, item development, expert review, a pilot study (i.e., item reduction, dimensionality, and item performance), exploratory factor analysis (EFA), impression management, and initial reliability and validity studies. In the current study, the CFA was utilized to confirm the five-factor model, based on the EFA and Brown's (2015, 2017, 2018, 2021) theoretical model of self-trust. The five factors that were extracted from the EFA and tested in the CFA were: Reliability-Accountability (RA), Vault (V), Integrity (I), Nonjudgement (N), and Generosity (G). The proposed five-factor model was compared to a four-factor model and three-factor model, and it was determined that the five-factor model was the best fit for these data. With the five-factor structure of the RA-VING Self Trust Instrument (RSTI) scores confirmed, the researcher further assessed reliability and validity of the

RSTI scores among the factors. Internal consistency was utilized to assess reliability and bivariate correlations between the RSTI factor scores and scores from other established measures were used to evaluate convergent and discriminant validity.

Discussion of the Results

This section provides a detailed discussion of the results from the dissertation study as they pertain to the research questions. Results from the CFA, as well as reliability and validity studies, will be reviewed and interpreted. Analyses of the measurement model and evidence for the reliability and validity of the RSTI are included.

Measurement Models

The first research question was: What is the factor structure of the self-trust instrument? The sub-research question was: Do these data provide a good fit to the proposed structure of the self-trust instrument? As predicted based on the EFA, the CFA confirmed that the five-factor RSTI model provided the best fit for the data compared to the four-factor and three-factor models. The RA, V, I, N, and G factors of the RSTI are theoretically consistent with Brown's (2015, 2017, 2018, 2021) BRAVING model of self-trust, while the comparative models provided poorer fit to these data.

The fit of the five-factor RSTI model was largely adequate; however, the TLI estimate was approaching acceptable fit, but did not meet the threshold. TLI is one of the incremental fit indices used to determine a model's goodness of fit by comparing the normed chi-square value for the null and specified model, with the assumption of the null model being that all variables are uncorrelated (Hair et al., 2009). A reason that TLI may be low is when one correlation between factors is low (Shi et al., 2019). For the RSTI, the covariance estimates demonstrated moderate to strong relationships between each of the

factors, with the exception of Vault and Nonjudgement, and this low correlation likely explains the TFI value. To address this concern with the goodness of fit, the researcher consulted modification indices. Based on the suggested modifications to the model that made theoretical sense, the expected parameter change was minimal, so no modifications were made to the model.

The CFA tested a hypothesized higher order model; however, the data did not converge. Instead, the CFA revealed a correlated factors model. In a higher order model, there is a single broad dimension and several subdimensions, where the broad dimension (i.e., construct) accounts for the covariation amongst the subdimensions (i.e., factors). In a correlated factors model, each item is associated with a single factor that represents a common variable between the items. There is not an underlying single dimension between all of the factors; however, the correlations between factors represent shared variation across all pairs of factors in the model and the strength of the relationships between the associated factor and the observed variables (Brown, 2015). The convergence of these data into a correlated factors model indicated that the elements of self-trust must be considered individually and provided support for the multidimensionality of the self-trust construct. This is theoretically consistent with Brown's (2015, 2017, 2018, 2021) BRAVING model. Congruently, the RSTI is recommended to be scored at the factor-level with no total score.

Reliability of the RSTI

The second research question was: What is the evidence for the validity of the self-trust instrument scores? The sub-research question was: Do the scores of the self-trust instrument demonstrate adequate evidence of internal consistency? To evaluate the

initial evidence of reliability for the RSTI, internal consistency was assessed through Cronbach's alpha estimates and inter-item correlations. The five RA-VING factors of the RSTI demonstrated excellent internal consistency according to Cronbach's alphas (Nunnally, 1978; Streiner, 2003).

According to Clark and Watson's (1995) guidelines, the mean inter-item correlations were in the acceptable range for the RA and V factors, and slightly above the acceptable range for the I, N, and G factors. The items for each factor appear to measure the same construct; however, the higher correlations for the I, N, and G factors may indicate possible item redundancy within those factors. Generally, the RSTI factors provided evidence of reliability.

Convergent and Discriminant Validity of the RSTI

The third research question was: What is the evidence for the validity of the self-trust instrument scores? The sub-research question was: Do the self-trust instrument scores demonstrate adequate evidence of convergent and discriminant validity? To assess for evidence of validity, bivariate correlations were performed between the RSTI factors and additional measures. Convergent validity is evidenced by constructs relating as expected, whereas discriminant validity is evidenced by expected differences between constructs (Crocker & Algina, 2008).

Convergent Validity

Based on the researcher's predictions, results of bivariate correlations between regressed factor scores and scores on established measures provided evidence of convergent validity for the RA, V, I, and N factor. The relationship between the Reliability-Accountability (RA) factor and the General Self-Efficacy Scale (GSE;

Schwarzer & Jerusalem, 1995) total score was as predicted: a statistically significant, moderate, positive association. The relationship between the Vault (V) factor and the Privacy Orientation Scale (Baruh & Cemalcılar, 2014) total score was a statistically significant, moderate, positive association, as predicted; however, the bivariate correlation between the regressed factor score for V and the concern about own informational privacy dimension resulted in a weak, statistically significant, positive association, although the association was predicted to be strong. The relationship between the Integrity (I) factor and the Integrity Scale (Schlenker, 2008) total score was a statistically significant, positive association, as predicted; however, the association was moderate, versus strong. The relationship between the Nonjudgement (N) factor and the Distress Disclosure Index (DDI; Kahn & Hessling, 2001) total score was a statistically significant, positive association, as predicted; however, the association was approaching moderate, versus moderate to strong.

The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1989) was used for convergent validity with the Generosity (G) factor. The researcher predicted a statistically significant, moderate to strong, positive correlation with the RSES scores. The bivariate correlation between the regressed factor score for G and the RSES total score resulted in a statistically significant, strong, negative association, which was not as expected. Upon further analysis, the RSES total scores were negatively associated with the regressed factor scores for all of the RSTI self-trust factors, although the strongest association was with the G factor. It is possible that the theoretical relationship between the constructs of self-trust, and specifically the generosity element, and self-esteem is not well understood; however, it is also possible that the RSES was not an appropriate measure for this

analysis. It may be beneficial to utilize alternative self-esteem measures in future studies of convergent validity in order to improve the understanding of this relationship. While this result failed to provide evidence of convergent validity for the G factor, the G factor did demonstrate convergent validity through positive, moderate associations with the Self-Compassion Scale- Short Form (SCS- SF; Raes et al., 2011) total score and self-kindness sub-score in Study Two, indicating that the SCS-SF is a better measure for G factor-level convergent validity going forward.

Discriminant Validity

The Big Five Inventory (BFI; John & Srivastava, 1999; John et al., 2008) was selected for discriminant validity and was compared and contrasted across the five factors. The BFI factors included Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness. The BFI factors had weak associations with the RSTI factors in 20 out of 25 relationships. For discriminant validity, the overall weakest associations were between the BFI Extraversion factor with the RSTI Vault and Integrity factors, the BFI Neuroticism factor with the RSTI Vault and Integrity factors, and the BFI Openness factor with the RSTI Integrity and Nonjudgement factors.

Relationships between the BFI and RSTI factors trended as predicted, although some of the associations were generally slightly weaker than predicted. The exceptions to this were the associations between RSTI Vault with BFI Conscientiousness and RSTI Generosity with BFI Neuroticism, which were both predicted to have weak associations that were in fact moderate and statistically significant. These are theoretically appropriate variations from the original hypotheses. Vault and Conscientiousness, which were positively associated, both require carefulness and thoughtfulness. Generosity (i.e., self-

compassion) is protective against Neuroticism (i.e., tendency toward negative feelings and self-doubt), and these were negatively associated.

Another notable variation from the hypotheses was the association between RSTI Nonjudgement and BFI Extraversion. This association was predicted to be a strong, positive association; however, while the association was positive and statistically significant, it was a weak association. This indicated that an extraverted personality is not necessary for the support-seeking involved in the practice of nonjudgement.

The direction of the association (i.e., positive or negative) was as predicted, with the exception of the association between RSTI Vault and BFI Extraversion. The association between RSTI Vault and BFI Extraversion was predicted to be negative and was actually positive; however, the association was very weak and not statistically significant. Comparing and contrasting relationships between the BFI and RSTI factors provided evidence of discriminant validity, as well as support of convergent validity, for the RSTI factors.

Contributions of the Study

This research provided conceptualization of the construct of self-trust, a new instrument to measure self-trust in adults, and laid a framework to grow the body of knowledge on self-trust in the counseling profession. Self-trust has lacked a strong, cohesive conceptualization due to the various, independent perspectives in the existing literature and the general dearth of literature focused on the topic. A synthesized conceptualization of self-trust was presented in this research, including an operational definition of self-trust and a theoretical model of self-trust formation, maintenance, disruption, and repair. This conceptualization and Brown's (2015, 2017, 2018, 2021)

BRAVING model of trust/self-trust provided the theoretical framework necessary to develop an instrument to measure the construct of self-trust.

This study introduced a new instrument to measure self-trust in adults: the BRAVING Self-Trust Instrument (RSTI). The RSTI was developed using national samples of adults based on population demographics for age, gender, and race/ethnicity. Additionally, the samples were diverse pertaining to education, marital status, employment, and socio-economic status. Large samples that are representative of cultural diversity reflect best methodological practices in quantitative research from a social justice perspective (Fassinger & Morrow, 2013).

Prior to the development of the RSTI, there was not an empirically-tested measure of self-trust, and empirical literature on this topic is limited. The RSTI can be used to expand the theoretical and practical understanding of the self-trust construct, which is important for the enlightenment of the counseling profession, as well as other disciplines. For counselors specifically, the availability of a self-trust measure is anticipated to inform existing research on human development, counselor professional development, and clinical treatment methods.

Limitations of the Study

The limitations of this study should be considered prior to a discussion of the associated implications. While substantial progress has been made on developing an empirically-tested measurement of self-trust, the instrument development process is not complete. According to Crocker and Algina's (2008) application of classical test theory, the final steps of the instrument development process involve ongoing reliability and validity studies, as well as establishing guidelines for instrument scoring and

interpretation. Further studies are needed to support the reliability and validity of the RSTI. Specifically, based on the results of the current study, further investigation of inter-item correlations and convergent validity is needed. Appropriate guidelines for scoring and interpreting the RSTI still need to be established.

The goodness of fit of the five-factor measurement model for the RSTI was largely adequate; however, the TLI estimate was approaching acceptable fit, but did not meet the threshold. This is likely due to the low correlation between the Vault and Nonjudgement elements of self-trust. In the current study, no modifications were made to the measurement model after consulting modification indices. Future research should continue to evaluate the five-factor model's goodness of fit to the data, with particular attention to TLI.

For the initial development of the RSTI, quota sampling, a non-probability (i.e., convenience) sampling method was used. Probability (i.e., random) sampling would have allowed stronger statistical inferences to be made when drawing conclusions. Although the sample was representative for national adult demographics based on age, gender, and race, the results cannot be generalized to other populations, such as international populations of adults, non-English speakers, and children/ adolescents.

Professional (i.e., paid) samples were utilized for all of the studies. There was no way to guarantee that the participants offered thoughtful responses, and the impact of this on data quality could not be assessed. In future studies, it may be beneficial to utilize alternative sampling methods for comparison.

These studies utilized self-report measures, so participants may have responded in a socially desirable manner instead of answering honestly. While an impression

management measure was not included in the current study, there was evidence of socially desirable responses in the preliminary studies. In Study Two, respondents who exceeded the cutoff score for social desirability were retained to preserve sample size, as removing them did not make a notable impact on the results of the data. It is recommended that impression management scales be utilized in future studies to further assess for social desirability.

Implications of the Results

This study was foundational for establishing a measure of self-trust. Through multiple phases of investigation, the results revealed five dimensions of self-trust (i.e., Reliability-Accountability, Vault, Integrity, Nonjudgement, and Generosity), based on Brown's (2015, 2017, 2018, 2021) BRAVING model of self-trust. The specific implications for practitioners and counselor development will be described in the following sections.

Implications for Practitioners

Counselors help clients address goals pertaining to mental health and wellness (ACA, 2010). Given that trust is necessary for psychological health and interpersonal functioning (Skripkina et al., 2020), counselors need to understand the role of self-trust related to the cause, prevention, and treatment of client presenting concerns, such as relationship issues, interpersonal functioning, communication problems, anxiety, depression, anger management, stress, body image, self-esteem, trauma, grief, substance use, identity development, health concerns, self-injury, racial/ ethnic/ cultural concerns, etc. (Heafner et al., 2016; Pérez-Rojas et al., 2017). Improving relationships with self and others is a desired outcome of counseling interventions (Walker & Peiffer, 1957), and

incorporating self-trust development or repair in client treatment goals may support these outcomes (Skripkina et al., 2020).

Upon validation for clinical practice, counselors may implement the RSTI with individual clients to assess factor-level self-trust deficits and strengths, inform treatment planning, and select appropriate interventions at the micro-level. At the macro-level, a better understanding of self-trust in various clinical populations could improve mental health programing in communities and treatment facilities. At both the micro- and macro-levels, the RSTI has the potential to be utilized as a tool to assess treatment effectiveness.

Notably, in the current study, only a small percentage of participants had an average score below the neutral point of three on distributions for the self-trust elements: R=A (0.8%), V (1.5%), I (1.9%), N (14.9%), and G (16.5%). This supported the concept that established self-trust is expected for the general adult population, congruent with appropriate progression through the psychosocial stages of development, and that variation lies primarily in the extent of the developed self-trust elements. For individuals with scores below the neutral point, this may be an indication of severe self-trust breaches requiring clinical intervention for self-trust repair to promote healthy attachment and personal development. Self-trust deficits are likely more prevalent in clinical populations than the general adult population, and it is hypothesized that clinical populations would have lower mean scores on the RSTI than the general adult population. Self-trust in various clinical populations warrants further investigation.

Implications for Counselor Development

Counselor development is a complex, multifaced, and transformational process that leads to increased individual self-awareness (Ieva et al., 2009), reflection (Neufeldt,

2007), self-efficacy (Kozina et al., 2010), cognitive complexity (Granello, 2010), and professional identity (Gibson et al., 2010). The choice to become a counselor involves both excitement and fear (Wagner & Hill, 2015). Stress is commonly experienced by students transitioning into counselor education programs (Rønnestad & Skovholt, 2003). Discomfort is impactful in facilitating development during experiential learning (Furr & Carroll, 2003; Neufeldt, 2007). To navigate this process, self-trust is needed (Wagner & Hill, 2015).

In order to grow and learn as developing counselors, counseling students undergo a reflexive process of building confidence, self-awareness, and self-trust. Increasing trust in self, others, and the process is associated with counseling students' willingness to take risks, openness to feedback, and ability to successfully integrate new information. In developing counselors, trust in self and others is a precursor to the evolution of personal identity and strengthening of professional identity (Wagner & Hill, 2015). For counselor educators and supervisors working with novice counseling students, the RSTI may offer a helpful assessment tool to identify strengths and growth areas of self-trust at the factor-level in support of the counselor development process.

Recommendations for Future Research

There are many recommendations for future research based on the results and implications. Initially, future research should focus on obtaining further evidence of the RSTI's reliability and validity, as well as rigorously testing the instrument's psychometric properties. While it is recommended that additional studies are needed to further assess the psychometric properties of the instrument prior to using it for research purposes, the availability of the RSTI offers a path forward to grow the professional body

of knowledge on self-trust. Usable, valid, and reliable scales can be utilized for the acquisition of knowledge regarding phenomena of interest (DeVellis, 2017). Based on existing literature, further investigation of the role of self-trust in attachment, psychosocial development, identity formation, social justice concerns, and wellness outcomes is warranted.

Ongoing validity studies are of particular importance, given that the construct of self-trust is still not well-understood. As the theoretical relationships between self-trust and related constructs are explored and the conceptualization of self-trust is strengthened, more appropriate measures for convergent and discriminant validity may be designated. Pertaining to reliability, the current investigation did not include temporal stability, so test-re-test studies at various time intervals should be implemented to assess the consistency of the measure. This investigation is needed to implement the RSTI with clinical populations in order to assess change over time.

Once additional evidence of validity and reliability are gathered, it is recommended that the RSTI be developed for its intended purpose of self-evaluation, research, and practitioner use. Cut-scores and score interpretation should be developed to distinguish between breached or established self-trust, as well as the extent of established self-trust (e.g., low, moderate, high). These cut-scores could offer insight for the identification of severe self-trust breaches, as well as guide the fortification of low to moderate self-trust elements, even amongst individuals with established self-trust. A dichotomous response format (e.g., true/ false) could be explored as an alternative to the Likert-scale for situations when it would be valuable to distinguish solely between established and breached self-trust, rather than the extent of the self-trust elements.

Theoretically, adults who have progressed appropriately through the psychosocial stages of development should have established self-trust. This theory was supported by factor-level means above the neutral point across the self-trust elements, indicating that the majority of adults in the sample had higher levels of self-trust. From a clinical standpoint, low-scoring outliers are of particular interest. Mixed methods studies that include qualitative investigation of the experiences of these low-scoring respondents would help counselors identify clinical factors that may contribute to breached self-trust in adulthood.

Should the RSTI be developed for clinical use, it would be important to test the instrument amongst various clinical populations hypothesized to be susceptible to self-trust breaches. Recommendations include samples of adults with mental health diagnoses, addiction, chronic medical conditions, relationship difficulties, trauma, and employment challenges. This would allow counselors to confirm relevant clinical populations of adults in which self-trust repair may be a critical treatment goal. Once these populations are identified, mixed methods studies that include qualitative investigation of the experiences of the highest scoring respondents would help counselors better understand the process of self-trust maintenance and repair amongst adults who are most vulnerable to self-trust deficits.

Finally, given the critical roots of self-trust formation in early development, investigation of self-trust in children and adolescents is warranted. This would require the RSTI to be adapted for and tested amongst minors. This may be of particular importance for vulnerable populations of children and adolescents, such as those with adverse childhood experiences (ACEs; Felitti et al., 2019), insecure attachment (Ainsworth et al.,

1978), and/or in state custody. This research would benefit prevention and treatment efforts to support the healthy development and successful outcomes of these youth. Further, it is recommended that future research explore the relationship between ACEs and adult self-trust outcomes.

Conclusion

Existing literature indicates that self-trust is important in early attachment, psychosocial development (Erikson, 1963), psychological security (Skripkina et al., 2020), successful functioning (Danilova, 2019), personal growth (Sideroff & Angel, 2013), meaningful existence, worthiness, authenticity (Govier, 1993), trust with others (Brown, 2018), and true belonging (Brown, 2017). However, self-trust is difficult to understand (Goering, 2009) and there is limited empirical literature that is focused on this topic. The dearth of empirical literature on self-trust may be attributed to the lack of empirically-tested quantitative instruments available to measure self-trust.

The purpose of this study was to develop and begin validating an instrument to measure self-trust in adults: the RA-VING Self-Trust Instrument (RSTI). This process was guided by Crocker and Algina's (2008) application of classical test theory and Brown's (2015, 2017, 2018, 2021) BRAVING model of self-trust. In the current investigation, the psychometric properties, reliability, and validity of the RSTI were examined. The CFA confirmed a five-factor model and revealed a correlated factors model. The five factors consisted of 26 items that appeared to capture the variables of Reliability-Accountability (RA), Vault (V), Integrity (I), Nonjudgement (N), and Generosity (G). The hypothesized five-factor model was a better fit for the data than the four-factor and three-factor comparative models. The goodness of fit of the five-factor

measurement model for the RSTI was largely adequate. The RSTI demonstrated excellent internal consistency according to Cronbach's alphas and generally acceptable internal consistency according to inter-item correlations. Convergent and discriminant validity of the RSTI was adequate at the factor-level.

This research offered construct conceptualization, an operational definition, and new instrument to measure self-trust to the field of counseling and other disciplines. These tools can be utilized as a foundation to expand the body of knowledge on self-trust, especially as it pertains to human development, attachment, clinical treatment, and counselor professional development. The instrument has prospective uses in general and clinical settings. The intention of the RSTI is to be an assistive measure in promoting human wellbeing by enlightening a key component of human relationships with self and others: self-trust.

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APPENDIX A

INITIAL BRAVING SELF-TRUST ITEMS

1 (Boundaries)	+ respects my own boundaries.
2 (Boundaries)	+ is clear about which situations are okay for me.
3 (Boundaries)	+ is aware when my needs are not being met.
4 (Boundaries)	+ makes good decisions for myself.
5 (Boundaries)	+ follows my intuition.
6 (Boundaries)	+ trusts my gut.
7 (Boundaries)	+ is comfortable with who I am.
8 (Boundaries)	+ has a sense of security in myself.
9 (Boundaries)	+ is responsive to my needs.
10 (Boundaries)	+ takes care of myself.
11 (Boundaries)	- sacrifices my needs to meet the needs of others.
12 (Boundaries)	+ prioritizes myself.
13 (Boundaries)	+ is authentic in my relationships.
14 (Boundaries)	+ is true to myself.
15 (Boundaries)	+ knows who I am.
16 (Boundaries)	+ is self-aware.
17 (Boundaries)	+ chooses relationships that are healthy for me.
18 (Boundaries)	+ communicates my boundaries to others.
19 (Boundaries)	- has a difficult time saying “no.”
20 (Boundaries)	+ feels comfortable saying “no” to others.
21 (Reliability)	+ does what I say I will do.
22 (Reliability)	+ is aware of my competencies.
23 (Reliability)	+ knows my limitations.
24 (Reliability)	- tends to overpromise when working with others.
25 (Reliability)	+ completes tasks that I start.
26 (Reliability)	+ delivers on commitments.
27 (Reliability)	- gives up easily.
28 (Reliability)	+ accomplishes goals that I set.
29 (Reliability)	- starts many projects without finishing them.
30 (Reliability)	+ is consistent.
31 (Reliability)	+ can depend on myself to meet my needs.
32 (Reliability)	+ behaves in a predictable manner.
33 (Reliability)	+ is consistent across settings.
34 (Reliability)	+ can count on myself to do what needs to be done.
35 (Reliability)	+ follows through on obligations.
36 (Reliability)	+ keeps the promises that I make to myself.

37 (Accountability)	+ admits when I make a mistake.
38 (Accountability)	+ is willing to apologize.
39 (Accountability)	+ makes amends when I make a mistake.
40 (Accountability)	+ takes responsibility for my actions.
41 (Accountability)	- has difficulty apologizing when I am wrong.
42 (Accountability)	- struggles to admit when I am wrong.
43 (Accountability)	+ accepts consequences for my actions.
44 (Accountability)	+ takes responsibility for my decisions.
45 (Accountability)	- blames others for my problems.
46 (Accountability)	+ learns from my mistakes.
47 (Accountability)	+ holds myself accountable for my actions.
48 (Accountability)	+ will answer for my choices.
49 (Accountability)	+ is willing to learn from failure.
50 (Accountability)	+ keeps moving forward after failures.
51 (Vault)	+ knows who I can trust.
52 (Vault)	+ only tells my story to those who have earned my trust.
53 (Vault)	- overshares my personal information.
54 (Vault)	+ knows who is safe to share my personal information with.
55 (Vault)	+ keeps the confidences of others.
56 (Vault)	+ does not share information that is not mine to share.
57 (Vault)	+ is considerate about how I share personal information with others.
58 (Vault)	+ keeps other people's information private.
59 (Vault)	+ respects the privacy of others.
60 (Vault)	- gossips about other people behind their back.
61 (Vault)	+ can keep secrets that others share with me.
62 (Integrity)	+ would rather do the right thing than the easy thing.
63 (Integrity)	+ chooses to do the right thing, even when it is hard.
64 (Integrity)	+ knows my values.
65 (Integrity)	+ practices my values.
66 (Integrity)	+ acts in accordance with my values.
67 (Integrity)	+ knows what is most important to me.
68 (Integrity)	+ feels proud of the choices I have made.
69 (Integrity)	+ is ethical.
70 (Integrity)	+ knows right from wrong.
71 (Integrity)	+ adheres to my morals.
72 (Integrity)	+ is honest with myself.
73 (Integrity)	+ does what is right.
74 (Nonjudgement)	+ asks for help when I need it.
75 (Nonjudgement)	- judges others when they ask for my help.
76 (Nonjudgement)	+ is nonjudgmental of myself when I ask for help.
77 (Nonjudgement)	- thinks less of myself if I need help.
78 (Nonjudgement)	- thinks I should handle my problems on my own.

79 (Nonjudgement)	- feels weak if I ask for help.
80 (Nonjudgement)	- does not like to ask for help.
81 (Nonjudgement)	+ reaches out to others for support.
82 (Generosity)	+ gives myself the benefit of the doubt.
83 (Generosity)	+ gives myself grace when I make mistakes.
84 (Generosity)	+ is generous toward myself.
85 (Generosity)	+ is kind to myself.
86 (Generosity)	+ validates my intentions.
87 (Generosity)	- is self-critical.
88 (Generosity)	+ believes I am worthy.
89 (Generosity)	+ is doing my best.
90 (Generosity)	+ encourages myself when I am in struggle.
91 (Generosity)	+ believes in myself.
92 (Generosity)	+ is self-compassionate.
93 (Generosity)	- is harsh with myself when I fail.

APPENDIX B

CONTENT EXPERT REVIEW OF PROPOSED SELF-TRUST MEASURE

General Questions:

- Can you confirm or invalidate my operational definition of Self-Trust (*see attachment: BRAVING Self-Trust Operational Definition*)? Suggested edits are welcome.
- Does Brown's research indicate that the seven elements of trust are equally weighted, or are there elements that should be weighted more heavily than others?

Item Evaluation:

- For each item, if you believe the item fits with the Element, mark "Y." If you do not believe that the item fits with the Element, mark "N."
- Please indicate the relevancy of each item to the construct, using the drop-down menu, from relevant, partially, or irrelevant.
- Please place a question mark "?" for any item that was unclear or difficult to read.
- In narrative form, add any comments and/or proposed revisions.
- Specific Items Noted by Measurement Experts:

Item Number	Item (I am someone who...)
2	is clear about which situations are okay for me.
9	has a sense of security in myself.
48	will answer for my choices.
84	is generous toward myself.
86	validates my intentions.

Requested Feedback:

- What are your thoughts about the instructions and response format (*see attachment: BRAVING Self-Trust Items- Draft*)? Preferences between Example Rating Option A or B (**highlighted in yellow on attachment*)?
- What is your feedback about valence issues, especially pertaining to the Nonjudgment Element? Thoughts about ways of restating these items positively? (*Negative valence items indicated in red text on BRAVING Self-Trust Items attachment.*) We can also discuss this during the follow-up meeting/ cognitive interviews.
- Share recommendations for additional items, if any.
- Please provide general feedback about the consistency of the instrument draft with Brown's BRAVING Self-Trust model.

APPENDIX C

MEASUREMENT EXPERT REVIEW OF PROPOSED SELF-TRUST MEASURE

General Questions:

- What are your thoughts about the instructions?
- What are your thoughts about the response format?

Item Evaluation:

- **CLARITY:** Please place a question mark "?" for any item that was unclear or difficult to read.
- In narrative form, add any comments and/or proposed revisions.

APPENDIX D

BRAVING SELF-TRUST DRAFT FOR POPULATION REVIEW

Instructions:

Below is a list of statements that may or may not describe you. Each statement begins with "I am someone who..."

Please indicate your agreement with how well each statement describes you from 'strongly agree' (1) to 'strongly disagree' (5).

- 1- Strongly agree (SA)
- 2- Agree (A)
- 3- Neutral (N)
- 4- Disagree (D)
- 5- Strongly disagree (SD)

Read each statement carefully and select only one answer. Do not skip any questions. Please answer honestly without overthinking. Your answers should reflect who you are now, not what you're working toward in the future.

I am someone who...

	SA	A	N	D	SD
1. allows my values to guide my actions.	1	2	3	4	5
2. is honest with myself.	1	2	3	4	5
3. is willing to reach out to others for support.	1	2	3	4	5
4. finishes projects that I start.	1	2	3	4	5
5. is caring toward myself when I am in distress.	1	2	3	4	5
6. asks for help in spite of what others may think.	1	2	3	4	5
7. identifies ground rules in relationships.	1	2	3	4	5
8. makes choices that align with my values.	1	2	3	4	5
9. knows my limitations.	1	2	3	4	5
10. follows my intuition.	1	2	3	4	5
11. gives myself the benefit of the doubt.	1	2	3	4	5
12. is self-compassionate.	1	2	3	4	5
13. sees my own needs as equally important as the needs of others.	1	2	3	4	5
14. is doing my best.	1	2	3	4	5
15. would rather do the right thing than the easy thing.	1	2	3	4	5
16. accepts consequences for my actions.	1	2	3	4	5
17. is comfortable asking others for help.	1	2	3	4	5
18. will answer for my choices.	1	2	3	4	5
19. encourages myself when I am struggling.	1	2	3	4	5

20. owns my mistakes.	1	2	3	4	5
21. feels comfortable saying “no” to others.	1	2	3	4	5
22. follows through on obligations.	1	2	3	4	5
23. has a strong sense of self.	1	2	3	4	5
24. delivers on commitments.	1	2	3	4	5
25. is thoughtful about how I share my personal information with others.	1	2	3	4	5
26. chooses to do the right thing, even when it is hard.	1	2	3	4	5
27. does not share private information publicly.	1	2	3	4	5
28. adheres to my morals.	1	2	3	4	5
29. is consistent across settings.	1	2	3	4	5
30. is responsive to my own needs.	1	2	3	4	5
31. trusts my gut.	1	2	3	4	5
32. only shares information that is mine to share.	1	2	3	4	5
33. takes care of myself.	1	2	3	4	5
34. acts in accordance with my values.	1	2	3	4	5
35. refrains from comparing myself to others.	1	2	3	4	5
36. can draw the line between work time and personal time.	1	2	3	4	5
37. has a clear sense of right and wrong.	1	2	3	4	5
38. speaks up for myself when a situation does not feel right.	1	2	3	4	5
39. has no problem asking for help when I need it.	1	2	3	4	5
40. keeps the promises that I make to myself.	1	2	3	4	5
41. is selective about who I share personal information with.	1	2	3	4	5
42. communicates my needs to others.	1	2	3	4	5
43. protects my private information around untrustworthy people.	1	2	3	4	5
44. is kind to myself.	1	2	3	4	5
45. asks for instructions when I do not understand something.	1	2	3	4	5
46. avoids oversharing personal information in attempt to gain intimacy.	1	2	3	4	5
47. holds myself accountable for my actions.	1	2	3	4	5
48. takes responsibility for my actions.	1	2	3	4	5
49. is aware when my needs are not being met.	1	2	3	4	5
50. is willing to learn from failure.	1	2	3	4	5
51. only tells my story to those who have earned my trust.	1	2	3	4	5
52. is nonjudgmental of myself when I ask for help.	1	2	3	4	5
53. is willing to apologize when I am wrong.	1	2	3	4	5
54. asks for clarification when uncertain.	1	2	3	4	5
55. believes I am worthy.	1	2	3	4	5
56. gives myself grace when I make mistakes.	1	2	3	4	5
57. is aware of my competencies.	1	2	3	4	5
58. behaves in a predictable manner.	1	2	3	4	5
59. knows when it is safe to share my personal information.	1	2	3	4	5
60. knows what is most important to me.	1	2	3	4	5
61. makes amends when I make a mistake.	1	2	3	4	5
62. can count on myself to do what needs to be done.	1	2	3	4	5
63. completes tasks that I start.	1	2	3	4	5
64. takes responsibility for my decisions.	1	2	3	4	5
65. admits when I make an error.	1	2	3	4	5

66. conducts myself ethically.	1	2	3	4	5
67. does what I say I will do.	1	2	3	4	5
68. knows who I can trust with my confidential information.	1	2	3	4	5

APPENDIX E

COGNITIVE INTERVIEW QUESTIONS FOR POPULATION EXPERTS

Please read the instructions and take the instrument. You will not need to submit your responses to me. Please flag any items that you are confused about.

1. How long did it take to complete the instrument? (Researcher will time the exercise.)
2. What feedback do you have about the instructions and response format (i.e., directions, scale)?
3. What was your experience during this exercise?
 - a. What thoughts/images came to your mind when reading these items?
4. Were there any items you didn't understand or you were confused about?
 - a. For each relevant item:
 - i. Can you repeat the item in your own words?
 - ii. What came to your mind when reading this item?
 - iii. How difficult was this item for you to understand?
 1. Was anything vague? Too complex? Undefined?
 2. How would you revise this item to make it clearer?
5. How likely do you think adults are to answer these items honestly?
6. Do you have any other relevant feedback?

APPENDIX F

PILOT STUDY INFORMED CONSENT

Dear Participant,

My name is Missy Moore and I am a faculty member in the Department of Counseling and Human Development Services at the University of Georgia. In collaboration with Alissa Tertichny, I am conducting research related to the development of a new instrument measuring self-trust among adults.

I am looking for a national sample of adults to participate in the study. You are being invited to participate in this study because you are an adult in the United States of America. You are eligible to participate in the research study if you are: (a) 18 years old or older, and (b) fluent in English.

If you agree to take part in this study, you will be asked to complete an online survey, which will take an estimated 10-20 minutes to complete.

Participation is voluntary. You can refuse to take part or stop at any time without penalty. You may skip any question you do not wish to answer for any reason. Upon successful completion of the survey, you will be compensated the amount that you agreed upon before entering into the survey.

There are no known risks to you from being in this research study. If you choose to participate in this study, your participation could contribute to a greater understanding of self-trust, which may have significant implications for clinical work.

This research involves the transmission of data over the Internet. Every reasonable effort has been taken to ensure the effective use of available technology; however, confidentiality during online communication cannot be guaranteed. The research team will make every effort to protect your privacy. No identifying information will be collected in connection with your participation. As part of the survey, we will collect demographic information to learn more about the sample's characteristics. In addition, all data from your participation may be used for future unspecified research studies when appropriate. This means that the research team may conduct further analyses of your de-identified information to answer future research questions without obtaining your additional consent.

If you have questions about this research, please feel free to contact Missy Moore at Missy.Moore@uga.edu. If you have any complaints or questions about your rights as a research volunteer, contact the IRB at 706-542-3199 or by email at IRB@uga.edu.

By continuing participation in the survey, you are providing your consent to participation in this research study. Please keep this letter for your records.

Sincerely,

C. Missy Moore, Ph.D., NCC
Assistant Professor
Department of Counseling and Human Development Services
University of Georgia

Alissa Tertichny, LCSW, CDWF
Student, Ph.D. Program in Counselor Education and Supervision
University of Georgia

APPENDIX G

PILOT STUDY DEMOGRAPHIC QUESTIONNAIRE

1. How would you describe your gender?
 - a. Male
 - b. Female
 - c. Non-Binary
 - d. Transgender
 - e. Prefer to self-describe (Write in)
 - f. Prefer not to answer

2. What is your age? (Write in)

3. Race/ Ethnicity
 - a. White
 - b. Hispanic or Latino
 - c. Black or African American
 - d. Native American or American Indian
 - e. Asian or Pacific Islander
 - f. Bi-racial or Multi-racial
 - g. Other (Write In)
 - h. Prefer not to answer

4. What is the highest degree or level of education you have completed?
 - a. Some High School
 - b. High School or GED
 - c. Associate Degree
 - d. Bachelor's Degree
 - e. Master's Degree
 - f. Specialist's Degree
 - g. Professional Doctorate (Ex: MD, JD)
 - h. Ph.D.
 - i. Trade School/ technical school/ vocational training
 - j. Other (Write In)
 - k. Prefer not to answer

5. Marital Status
 - a. Single
 - b. Long-Term Relationship
 - c. Domestic Partnership
 - d. Married

- e. Divorced
- f. Re-married
- g. Widowed
- h. Other (Write In)
- i. Prefer not to answer

6. Employment Status

- a. Part-Time (Under 30 hours per week)
- b. Full Time (30 hours per week or more)
- c. Self-Employed
- d. Out of work and looking for work
- e. Out of work, but not currently looking for work
- f. Homemaker
- g. Student
- h. Military
- i. Retired
- j. Unable to work
- k. Other (Write In)
- l. Prefer not to answer

7. Household Income

- a. Below \$10k
- b. \$10k- \$50k
- c. \$50k- \$100k
- d. \$100k-\$150k
- e. Over \$150k
- f. Prefer not to answer

APPENDIX H

BRAVING SELF-TRUST DRAFT FOR PILOT STUDY

Instructions:

Below is a list of statements that may or may not describe you. Each statement begins with "I am someone who..."

Please indicate your agreement with how well each statement describes you from 'strongly disagree' (1) to 'strongly agree' (5).

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

Read each statement carefully and select only one answer. Do not skip any questions.

Please answer honestly without overthinking. Your answers should reflect who you are now, not what you're working toward in the future. Your responses should be general and encompass the various aspects of your life (ex: personal, professional, etc.)

I am someone who...

- 1. asks for clarification when uncertain.
- 2. gives myself the benefit of the doubt.
- 3. follows my intuition.
- 4. admits when I make an error.
- 5. makes choices that align with my values.
- 6. takes care of myself.
- 7. considers my audience when sharing personal information.
- 8. speaks up for myself when a situation does not feel right.
- 9. allows my values to guide my actions.
- 10. follows through on obligations.
- 11. trusts my gut.
- 12. is thoughtful about how I share my personal information with others.
- 13. is nonjudgmental of myself when I ask for help.
- 14. knows who I can trust with my private information.
- 15. adheres to my morals.

16. owns my mistakes.
17. knows what is most important to me.
18. takes responsibility for my decisions.
19. is aware of my competencies.
20. is willing to reach out to others for support.
21. behaves in a predictable manner.
22. refrains from comparing myself to others.
23. is self-compassionate.
24. is willing to learn from failure.
25. knows my limitations.
26. encourages myself when I am struggling.
27. can count on myself to do what needs to be done.
28. will answer for my choices.
29. finishes projects that I start.
30. knows when it is safe to share my personal information.
31. conducts myself ethically.
32. is careful about what personal information I share publicly.
33. does what I say I will do.
34. is aware when my needs are not being met.
35. takes responsibility for my actions.
36. avoids oversharing personal information in attempt to gain intimacy.
37. is comfortable asking others for help.
38. gives myself grace when I make mistakes.
39. identifies ground rules in relationships.
40. only shares information that is mine to share.
41. asks for help in spite of what others may think.
42. is caring toward myself when I am in distress.
43. keeps the promises that I make to myself.
44. holds myself accountable for my actions.
45. would rather do the right thing than the easy thing.
46. is responsive to my own needs.
47. only tells my story to those who have earned my trust.
48. is honest with myself.
49. can draw the line between work time and personal time.
50. is consistent across settings.
51. has no problem asking for help when I need it.
52. accepts consequences for my actions.
53. has a strong sense of self.
54. is willing to apologize when I am wrong.
55. communicates my needs to others.

56. is selective about who I share personal information with.
57. believes I am worthy.
58. feels comfortable saying “no” to others.
59. makes amends when I make a mistake.
60. delivers on commitments.
61. is doing my best.
62. protects my private information around untrustworthy people.
63. chooses to do the right thing, even when it is hard.
64. has a clear sense of right and wrong.
65. sees my own needs as equally important as the needs of others.
66. completes tasks that I start.
67. is kind to myself.
68. acts in accordance with my values.
69. asks for instructions when I do not understand something.

APPENDIX I

TEST OF SELF-CONSCIOUS AFFECT- VERSION 3 (TOSCA-3s)

Below are situations that people are likely to encounter in day-to-day life, followed by several common reactions to those situations.

As you read each scenario, try to imagine yourself in that situation. Then indicate how likely you would be to react in each of the ways described. We ask you to rate all responses because people may feel or react more than one way to the same situation, or they may react different ways at different times.

For example:

A. You wake up early one Saturday morning. It is cold and rainy outside.

a) You would telephone a friend to catch up on news. $\textcircled{1}$ --2---3---4---5
not likely very likely

b) You would take the extra time to read the paper. 1---2---3---4-- $\textcircled{5}$
not likely very likely

c) You would feel disappointed that it's raining. 1---2-- $\textcircled{3}$ --4---5
not likely very likely

d) You would wonder why you woke up so early. 1---2---3-- $\textcircled{4}$ --5
not likely very likely

In the above example, I've rated ALL of the answers by circling a number. I circled a "1" for answer (a) because I wouldn't want to wake up a friend very early on a Saturday morning -- so it's not at all likely that I would do that. I circled a "5" for answer (b) because I almost always read the paper if I have time in the morning (very likely). I circled a "3" for answer (c) because for me it's about half and half. Sometimes I would be disappointed about the rain and sometimes I wouldn't -- it would depend on what I had planned. And I circled a "4" for answer (d) because I would probably wonder why I had awakened so early.

Please do not skip any items -- rate all responses.

1. You make plans to meet a friend for lunch. At 5 o'clock, you realize you stood your friend up.

	Not likely	Very likely
a) You would think: "I'm inconsiderate."	1---2---3---4---5	
b) You would think: "Well, my friend will understand."	1---2---3---4---5	
c) You'd think you should make it up to your friend as soon as possible.	1---2---3---4---5	
d) You would think: "My boss distracted me just before lunch."	1---2---3---4---5	

2. You break something at work and then hide it.

	Not likely	Very likely
a) You would think: "This is making me anxious. I need to either fix it or get someone else to."	1---2---3---4---5	
b) You would think about quitting.	1---2---3---4---5	
c) You would think: "A lot of things aren't made very well these days."	1---2---3---4---5	
d) You would think: "It was only an accident."	1---2---3---4---5	

3. At work, you wait until the last minute to plan a project, and it turns out badly.

	Not likely	Very likely
a) You would feel incompetent.	1---2---3---4---5	
b) You would think: "There are never enough hours in the day."	1---2---3---4---5	
c) You would feel: "I deserve to be reprimanded for mismanaging the project."	1---2---3---4---5	
d) You would think: "What's done is done."	1---2---3---4---5	

4. You make a mistake at work and find out a co-worker is blamed for the error.

	Not likely	Very likely
a) You would think the company did not like the co-worker.	1---2---3---4---5	
b) You would think: "Life is not fair."	1---2---3---4---5	
c) You would keep quiet and avoid the co-worker.	1---2---3---4---5	
d) You would feel unhappy and eager to correct the situation.	1---2---3---4---5	

5. While playing around, you throw a ball and it hits your friend in the face.

	Not likely	Very likely
a) You would feel inadequate that you can't even throw a ball.	1---2---3---4---5	
b) You would think maybe your friend needs more practice at catching.	1---2---3---4---5	
c) You would think: "It was just an accident."	1---2---3---4---5	
d) You would apologize and make sure your friend feels better.	1---2---3---4---5	

6. You are driving down the road, and you hit a small animal.

	Not likely	Very likely
a) You would think the animal shouldn't have been on the road.	1---2---3---4---5	
b) You would think: "I'm terrible."	1---2---3---4---5	
c) You would feel: "Well, it was an accident."	1---2---3---4---5	
d) You'd feel bad you hadn't been more alert driving down the road.	1---2---3---4---5	

7. You walk out of an exam thinking you did extremely well. Then you find out you did poorly.

	Not likely	Very likely
a) You would think: "Well, it's just a test."	1---2---3---4---5	
b) You would think: "The instructor doesn't like me."	1---2---3---4---5	
c) You would think: "I should have studied harder."	1---2---3---4---5	
d) You would feel stupid.	1---2---3---4---5	

8. While out with a group of friends, you make fun of a friend who's not there.

	Not likely	Very likely
a) You would think: "It was all in fun; it's harmless."	1---2---3---4---5	
b) You would feel small...like a rat.	1---2---3---4---5	
c) You would think that perhaps that friend should have been there to defend himself/herself.	1---2---3---4---5	
d) You would apologize and talk about that person's good points.	1---2---3---4---5	

9. You make a big mistake on an important project at work. People were depending on you, and your boss criticizes you.

	Not likely	Very likely
a) You would think your boss should have been more clear about what was expected of you.	1---2---3---4---5	
b) You would feel like you wanted to hide.	1---2---3---4---5	
c) You would think: "I should have recognized the problem and done a better job."	1---2---3---4---5	
d) You would think: "Well, nobody's perfect."	1---2---3---4---5	

10. You are taking care of your friend's dog while they are on vacation and the dog runs away.

	Not likely	Very likely
a) You would think, "I am irresponsible and incompetent."	1---2---3---4---5	
b) You would think your friend must not take very good care of their dog or it wouldn't have run away.	1---2---3---4---5	
c) You would vow to be more careful next time.	1---2---3---4---5	
d) You would think your friend could just get a new dog.	1---2---3---4---5	

11. You attend your co-worker's housewarming party and you spill red wine on a new cream-colored carpet, but you think no one notices.

	Not likely	Very likely
a) You think your co-worker should have expected some accidents at such a big party.	1---2---3---4---5	
b) You would stay late to help clean up the stain after the party.	1---2---3---4---5	
c) You would wish you were anywhere but at the party.	1---2---3---4---5	
d) You would wonder why your co-worker chose to serve red wine with the new light carpet.	1---2---3---4---5	

APPENDIX J

MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE FORM C (MC-C)

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

1. It is sometimes hard for me to go on with my work if I am not encouraged. *True False*
2. I sometimes feel resentful when I don't get my own way. *True False*
3. On a few occasions, I have given up doing something because I thought too little of my ability. *True False*
4. There have been times when I felt like rebelling against people in authority even though I knew they were right. *True False*
5. No matter who I'm talking to, I'm always a good listener. *True False*
6. There have been occasions when I took advantage of someone. *True False*
7. I'm always willing to admit it when I make a mistake. *True False*
8. I sometimes try to get even, rather than forgive and forget. *True False*
9. I am always courteous, even to people who are disagreeable. *True False*
10. I have never been irked when people expressed ideas very different from my own. *True False*
11. There have been times when I was quite jealous of the good fortune of others. *True False*
12. I am sometimes irritated by people who ask favors of me. *True False*
13. I have never deliberately said something that hurt someone's feelings. *True False*

APPENDIX K

STUDY TWO (EFA) INFORMED CONSENT

Dear Participant,

My name is Missy Moore and I am a faculty member in the Department of Counseling and Human Development Services at the University of Georgia. In collaboration with Alissa Tertichny, I am conducting research related to the development of a new instrument measuring self-trust among adults.

I am looking for a national sample of adults to participate in the study. You are being invited to participate in this study because you are an adult in the United States of America. You are eligible to participate in the research study if you are: (a) 18 years old or older, and (b) fluent in English.

If you agree to take part in this study, you will be asked to complete an online survey, which will take an estimated 10-20 minutes to complete.

Participation is voluntary. You can refuse to take part or stop at any time without penalty. You may skip any question you do not wish to answer for any reason. Upon successful completion of the survey, you will be compensated the amount that you agreed upon before entering into the survey.

There are no known risks to you from being in this research study. If you choose to participate in this study, your participation could contribute to a greater understanding of self-trust, which may have significant implications for clinical work.

This research involves the transmission of data over the Internet. Every reasonable effort has been taken to ensure the effective use of available technology; however, confidentiality during online communication cannot be guaranteed. The research team will make every effort to protect your privacy. No identifying information will be collected in connection with your participation. As part of the survey, we will collect demographic information to learn more about the sample's characteristics. In addition, all data from your participation may be used for future unspecified research studies when appropriate. This means that the research team may conduct further analyses of your de-identified information to answer future research questions without obtaining your additional consent.

If you have questions about this research, please feel free to contact Missy Moore at Missy.Moore@uga.edu. If you have any complaints or questions about your rights as a research volunteer, contact the IRB at 706-542-3199 or by email at IRB@uga.edu.

By continuing participation in the survey, you are providing your consent to participation in this research study. Please keep this letter for your records.

Sincerely,

C. Missy Moore, Ph.D., NCC
Assistant Professor
Department of Counseling and Human Development Services
University of Georgia

Alissa Tertichny, LCSW, CDWF
Student, Ph.D. Program in Counselor Education and Supervision
University of Georgia

APPENDIX L

STUDY TWO (EFA) DEMOGRAPHIC QUESTIONNAIRE

1. How would you describe your gender?
 - a. Male
 - b. Female
 - c. Non-Binary
 - d. Transgender
 - e. Prefer to self-describe (Write in)
 - f. Prefer not to answer

2. What is your age? (Write in)

3. Race/ Ethnicity
 - a. White
 - b. Hispanic or Latino
 - c. Black or African American
 - d. Native American or American Indian
 - e. Asian or Pacific Islander
 - f. Bi-racial or Multi-racial
 - g. Other (Write In)
 - h. Prefer not to answer

4. What is the highest degree or level of education you have completed?
 - a. Some High School
 - b. High School or GED
 - c. Some college
 - d. Associate Degree
 - e. Bachelor's Degree
 - f. Master's Degree
 - g. Specialist's Degree
 - h. Professional Doctorate (Ex: MD, JD)
 - i. Ph.D.
 - j. Trade School/ technical school/ vocational training
 - k. Other (Write In)
 - l. Prefer not to answer

5. Marital Status
 - a. Single
 - b. Long-Term Relationship
 - c. Domestic Partnership

- d. Married
- e. Divorced
- f. Re-married
- g. Widowed
- h. Other (Write In)
- i. Prefer not to answer

6. Employment Status

- a. Part-Time (Under 30 hours per week)
- b. Full Time (30 hours per week or more)
- c. Self-Employed
- d. Out of work and looking for work
- e. Out of work, but not currently looking for work
- f. Homemaker
- g. Student
- h. Military
- i. Retired
- j. Unable to work
- k. Other (Write In)
- l. Prefer not to answer

7. Household Income

- a. Below \$10k
- b. \$10k- \$50k
- c. \$50k- \$100k
- d. \$100k-\$150k
- e. Over \$150k
- f. Prefer not to answer

APPENDIX M

BRAVING SELF-TRUST DRAFT FOR STUDY TWO (EFA)

Instructions:

Below is a list of statements that may or may not describe you. Each statement begins with "I am someone who..."

Please indicate your agreement with how well each statement describes you from 'strongly disagree' (1) to 'strongly agree' (5).

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

Read each statement carefully and select only one answer. Do not skip any questions.

Please answer honestly without overthinking. Your answers should reflect who you are now, not what you're working toward in the future. Your responses should be general and encompass the various aspects of your life (ex: personal, professional, etc.)

I am someone who...

1. has no problem asking for help when I need it.
2. speaks to myself more compassionately than critically.
3. advocates for myself when I am not getting what I need.
4. can count on myself to do what needs to be done.
5. accepts consequences for my actions.
6. avoids oversharing personal information in attempt to gain intimacy.
7. constantly does the right thing, even when it is hard.
8. is aware when my needs are not being met.
9. knows what is most important to me.
10. always treats myself with kindness.
11. is thoughtful about how I share my personal information with others.
12. takes responsibility for my decisions.
13. would rather ask for support than suffer alone.
14. sees my own needs as equally important as the needs of others.
15. knows who I can trust with my private information.
16. competently handles my responsibilities.

17. encourages myself when I am struggling.
18. keeps the promises that I make to myself.
19. gives myself the benefit of the doubt.
20. finishes projects that I start.
21. owns up for my mistakes when I am at fault.
22. speaks up for myself when a situation does not feel right.
23. acts in accordance with my values.
24. communicates my needs to others.
25. knows my limitations.
26. is careful about what personal information I share publicly.
27. learns from failure so I can improve.
28. highly respects myself.
29. is willing to reach out to others for support.
30. apologizes when I mess up, even when it is an accident.
31. only shares information that is mine to share.
32. conducts myself ethically.
33. is accepting of myself when I ask for help.
34. has a clear sense of right and wrong.
35. thinks that it is okay for me to ask others for help.
36. follows my intuition.
37. allows my values to guide my actions.
38. completes tasks that I start.
39. only tells my story to those who have earned my trust.
40. feels comfortable saying “no” to others.
41. refrains from comparing myself to others.
42. can draw the line between work time and personal time.
43. protects my private information around untrustworthy people.
44. does what I say I will do.
45. considers my audience when sharing personal information.
46. identifies ground rules in relationships.
47. makes amends when I am in the wrong.
48. has a strong sense of self.
49. believes I am worthy.
50. adheres to my morals.
51. asks for clarification when uncertain.
52. is selective about who I share personal information with.
53. takes care of myself.
54. asks for help in spite of what others may think.
55. consistently delivers on commitments.
56. holds myself accountable for my actions.
57. trusts my gut.
58. knows when it is safe to share my personal information.
59. is comfortable asking others for help.
60. gives myself grace when I make mistakes.
61. sees the value in seeking out support from others for my problems.
62. is doing my best.

63. makes choices that align with my values.
64. asks for instructions when I do not understand something.
65. follows through on obligations.

APPENDIX N

SOCIAL CONNECTEDNESS SCALE- REVISED (SCS-R)

Directions: Following are a number of statements that reflect various ways in which we view ourselves. Rate the degree to which you agree or disagree with each statement using the following scale (1= Strongly Disagree and 6= Strongly Agree). There is no right or wrong answer. Do not spend too much time with any one statement and do not leave any unanswered.

Strongly Disagree 1	Disagree 2	Mildly Disagree 3	Mildly Agree 4	Agree 5	Strongly Agree 6
				Strongly Disagree	Strongly Agree
				1 2 3	4 5 6
1.					
				1 2 3	4 5 6
2.					
3.					
				1 2 3	4 5 6
4.					
5.					
6.					
7.					
				1 2 3	4 5 6
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
				1 2 3	4 5 6
16.					
17.					
18.					
19.					
20.					

*Reverse score.

APPENDIX O

SELF-COMPASSION SCALE SHORT-FORM (SCS-SF)

How I Typically Act Toward Myself In Difficult Times

Please read each statement carefully before answering. Indicate how often you behave in the stated manner, using the following scale:

Almost Never			Almost Always	
1	2	3	4	5

1. When I fail at something important to me, I become consumed by feelings of inadequacy.
2. I try to be understanding and patient towards those aspects of my personality I don't like.
3. When something painful happens, I try to take a balanced view of the situation.
4. When I'm feeling down, I tend to feel like most other people are probably happier than I am.
5. I try to see my failings as part of the human condition.
6. When I'm going through a very hard time, I give myself the caring and tenderness I need.
7. When something upsets me, I try to keep my emotions in balance.
8. When I fail at something that's important to me, I tend to feel alone in my failure.
9. When I'm feeling down, I tend to obsess and fixate on everything that's wrong.
10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.

11. I'm disapproving and judgmental about my own flaws and inadequacies.
12. I'm intolerant and impatient towards those aspects of my personality I don't like.

APPENDIX P

NARCISSISTIC PERSONALITY INVENTORY 13-ITEM (NPI-13)

In each of the following pairs of attributes, choose the one that you **MOST AGREE** with. Mark your answer by writing **EITHER A or B** in the space provided. Only mark **ONE ANSWER** for each attitude pair.

- ___ 1. A I find it easy to manipulate people.
B I don't like it when I find myself manipulating people.
- ___ 2. A When people compliment me I get embarrassed.
B I know that I am a good person because everybody keeps telling me so.
- ___ 3. A I like having authority over other people.
B I don't mind following orders.
- ___ 4. A I insist upon getting the respect that is due me.
B I usually get the respect I deserve.
- ___ 5. A I don't particularly like to show off my body.
B I like to show off my body.
- ___ 6. A I have a strong will to power.
B Power for its own sake doesn't interest me.
- ___ 7. A I expect a great deal from other people.
B I like to do things for other people.
- ___ 8. A My body is nothing special.
B I like to look at my body.
- ___ 9. A Being in authority doesn't mean much to me.
B People always seem to recognize my authority.
- ___ 10. A I will never be satisfied until I get all that I deserve.
B I will take my satisfactions as they come.
- ___ 11. A I try not to be a show off.
B I will usually show off if I get the chance.
- ___ 12. A I am a born leader.
B Leadership is a quality that takes a long time to develop.
- ___ 13. A I like to look at myself in the mirror.
B I am not particularly interested in looking at myself in the mirror.

APPENDIX Q

MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE (M-C SDS)

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

1. Before voting I thoroughly investigate the qualifications of all the candidates. *True False*
2. I never hesitate to go out of my way to help someone in trouble. *True False*
3. It is sometimes hard for me to go on with my work if I am not encouraged. *True False*
4. I have never intensely disliked anyone. *True False*
5. On occasion I have doubts about my ability to succeed in life. *True False*
6. I sometimes feel resentful when I don't get my own way. *True False*
7. I am always careful about my manner of dress. *True False*
8. My table manners at home are as good as when I eat out in a restaurant. *True False*
9. If I could get into a movie without paying and be sure I was not seen, I would probably do it. *True False*
10. On a few occasions, I have given up doing something because I thought too little of my ability. *True False*
11. I like to gossip at times. *True False*
12. There have been times when I felt like rebelling against people in authority even though I knew they were right. *True False*
13. No matter who I'm talking to, I'm always a good listener. *True False*
14. I can remember "playing sick" to get out of something. *True False*
15. There have been occasions when I took advantage of someone. *True False*
16. I'm always willing to admit it when I make a mistake. *True False*
17. I always try to practice what I preach. *True False*
18. I don't find it particularly difficult to get along with loud-mouthed, obnoxious people. *True False*
19. I sometimes try to get even, rather than forgive and forget. *True False*
20. When I don't know something, I don't at all mind admitting it. *True False*
21. I am always courteous, even to people who are disagreeable. *True False*
22. At times I have really insisted on having things my own way. *True False*
23. There have been occasions when I felt like smashing things. *True False*
24. I would never think of letting someone else be punished for my own wrongdoings. *True False*
25. I never resent being asked to return a favor. *True False*
26. I have never been irked when people expressed ideas very different from my own. *True False*
27. I never make a long trip without checking the safety of my car. *True False*
28. There have been times when I was quite jealous of the good fortune of others. *True False*
29. I have almost never felt the urge to tell someone off. *True False*
30. I am sometimes irritated by people who ask favors of me. *True False*
31. I have never felt that I was punished without cause. *True False*
32. I sometimes think when people have a misfortune, they only got what they deserved. *True False*
33. I have never deliberately said something that hurt someone's feelings. *True False*

APPENDIX R

STUDY THREE (CFA) INFORMED CONSENT

Dear Participant,

My name is Alissa Tertichny and I am a Ph.D. student in the Counselor Education and Supervision program at the University of Georgia. I am conducting research related to the development of a new instrument measuring self-trust among adults. This research is being conducted under the supervision of my Faculty Advisor, Missy Moore, with the Department of Counseling and Human Development Services at the University of Georgia.

I am looking for a national sample of adults to participate in the study. You are being invited to participate in this study because you are an adult in the United States of America. You are eligible to participate in the research study if you are: (a) 18 years old or older, and (b) fluent in English.

If you agree to take part in this study, you will be asked to complete an online survey, which will take an estimated 10-20 minutes to complete.

Participation is voluntary. You can refuse to take part or stop at any time without penalty. You may skip any question you do not wish to answer for any reason. Upon successful completion of the survey, you will be compensated the amount that you agreed upon before entering into the survey.

There are no known risks to you from being in this research study. If you choose to participate in this study, your participation could contribute to a greater understanding of self-trust, which may have significant implications for clinical work.

This research involves the transmission of data over the Internet. Every reasonable effort has been taken to ensure the effective use of available technology; however, confidentiality during online communication cannot be guaranteed. The research team will make every effort to protect your privacy. No identifying information will be collected in connection with your participation. As part of the survey, we will collect demographic information to learn more about the sample's characteristics. In addition, all data from your participation may be used for future unspecified research studies when appropriate. This means that the research team may conduct further analyses of your de-identified information to answer future research questions without obtaining your additional consent.

If you have questions about this research, please feel free to contact Alissa Tertichny at Alissa.Tertichny@uga.edu or Missy Moore at Missy.Moore@uga.edu. If you have any complaints or questions about your rights as a research volunteer, contact the IRB at 706-542-3199 or by email at IRB@uga.edu.

By continuing participation in the survey, you are providing your consent to participation in this research study. Please keep this letter for your records.

Sincerely,

Alissa Tertichny, LCSW, CDWF
Student, Ph.D. Program in Counselor Education and Supervision
University of Georgia

C. Missy Moore, Ph.D., NCC
Assistant Professor
Department of Counseling and Human Development Services
University of Georgia

APPENDIX S

STUDY THREE (CFA) DEMOGRAPHIC QUESTIONNAIRE

1. How would you describe your gender?
 - a. Male
 - b. Female
 - c. Non-Binary
 - d. Transgender
 - e. Prefer to self-describe (Write in)
 - f. Prefer not to answer

2. What is your age? (Write in)

3. Race/ Ethnicity
 - a. White
 - b. Hispanic or Latino
 - c. Black or African American
 - d. Native American or American Indian
 - e. Asian or Pacific Islander
 - f. Bi-racial or Multi-racial
 - g. Other (Write In)
 - h. Prefer not to answer

4. What is the highest degree or level of education you have completed?
 - a. Some High School
 - b. High School or GED
 - c. Some college
 - d. Associate Degree
 - e. Bachelor's Degree
 - f. Master's Degree
 - g. Specialist's Degree
 - h. Professional Doctorate (Ex: MD, JD)
 - i. Ph.D.
 - j. Trade School/ technical school/ vocational training
 - k. Other (Write In)
 - l. Prefer not to answer

5. Marital Status
 - a. Single
 - b. Long-Term Relationship
 - c. Domestic Partnership

- d. Married
- e. Divorced
- f. Separated
- g. Re-married
- h. Widowed
- i. Other (Write In)
- j. Prefer not to answer

6. Employment Status

- a. Part-Time (Under 30 hours per week)
- b. Full Time (30 hours per week or more)
- c. Self-Employed
- d. Out of work and looking for work
- e. Out of work, but not currently looking for work
- f. Homemaker
- g. Student
- h. Military
- i. Retired
- j. Unable to work
- k. Volunteer
- l. Other (Write In)
- m. Prefer not to answer

7. Household Income

- a. Below \$10k
- b. \$10k- \$50k
- c. \$50k- \$100k
- d. \$100k-\$150k
- e. Over \$150k
- f. Prefer not to answer

APPENDIX T

RA-VING SELF-TRUST (RSTI) DRAFT FOR STUDY THREE (CFA)

Instructions:

Below is a list of statements that may or may not describe you. Each statement begins with "I am someone who..."

Please indicate your agreement with how well each statement describes you from 'strongly disagree' (1) to 'strongly agree' (5).

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

Read each statement carefully and select only one answer. Do not skip any questions.

Please answer honestly without overthinking. Your answers should reflect who you are now, not what you're working toward in the future. Your responses should be general and encompass the various aspects of your life (e.g., personal, professional, etc.)

I am someone who...

1. owns up for my mistakes when I am at fault.
2. is careful about what personal information I share publicly.
3. allows my values to guide my actions.
4. asks for help in spite of what others may think.
5. speaks to myself more compassionately than critically.
6. does what I say I will do.
7. is thoughtful about how I share my personal information with others.
8. conducts myself ethically.
9. is comfortable asking others for help.
10. gives myself the benefit of the doubt.
11. accepts consequences for my actions.
12. protects my private information around untrustworthy people.
13. adheres to my morals.
14. sees the value in seeking out support from others for my problems.
15. highly respects myself.

16. holds myself accountable for my actions.
17. is selective about who I share personal information with.
18. makes choices that align with my values.
19. is willing to reach out to others for support.
20. always treats myself with kindness.
21. competently handles my responsibilities.
22. considers my audience when sharing personal information.
23. acts in accordance with my values.
24. thinks that it is okay for me to ask others for help.
25. believes I am worthy.
26. follows through on obligations.

Scales:

Reliability/Accountability (RA): 1, 6, 11, 16, 21, 26

Vault (V): 2, 7, 12, 17, 22

Integrity (I): 3, 8, 13, 18, 23

Nonjudgement (N): 4, 9, 14, 19, 24

Generosity (G): 5, 10, 15, 20, 25

APPENDIX U

GENERAL SELF-EFFICACY SCALE (GSE)

1. I can always manage to solve difficult problems if I try hard enough.
Not at all true *Hardly True* *Moderately True* *Exactly True*
2. If someone opposes me, I can find the means and ways to get what I want.
Not at all true *Hardly True* *Moderately True* *Exactly True*
3. It is easy for me to stick to my aims and accomplish my goals.
Not at all true *Hardly True* *Moderately True* *Exactly True*
4. I am confident that I could deal efficiently with unexpected events.
Not at all true *Hardly True* *Moderately True* *Exactly True*
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.
Not at all true *Hardly True* *Moderately True* *Exactly True*
6. I can solve most problems if I invest the necessary effort.
Not at all true *Hardly True* *Moderately True* *Exactly True*
7. I can remain calm when facing difficulties because I can rely on my coping abilities.
Not at all true *Hardly True* *Moderately True* *Exactly True*
8. When I am confronted with a problem, I can usually find several solutions.
Not at all true *Hardly True* *Moderately True* *Exactly True*
9. If I am in trouble, I can usually think of a solution.
Not at all true *Hardly True* *Moderately True* *Exactly True*

10. I can usually handle whatever comes my way.

Not at all true

Hardly True

Moderately True

Exactly True

APPENDIX V

PRIVACY ORIENTATION SCALE

Strongly Disagree		Strongly Agree
1	2	3
		4
		5

Dimension 1: Privacy as a Right

- Privacy laws should be strengthened to protect personal privacy.
- People need legal protection against misuse of personal data.
- If I were to write a constitution today, I would probably add privacy as a fundamental right.

Dimension 2: Concern about Own Informational Privacy

- When I share the details of my personal life with somebody, I often worry that he/she will tell those details to other people.
- I am concerned that people around me know too much about me.
- I am concerned with the consequences of sharing identity information.
- I worry about sharing information with more people than I intend to.

Dimension 3: Other-Contingent Privacy

- If somebody is not careful about protecting their own privacy, I cannot trust them about respecting mine.
- If I am to enjoy some privacy in my life, I need my friends to be careful about protecting their privacy as well.
- I could never trust someone as my confidant if they go around sharing details about their own private lives.
- The level of privacy that I can enjoy depends on the extent to which people around me protect their own privacy.

Dimension 4: Concern about Privacy of Others

- It is important for me to respect the privacy of individuals, even if they are not careful about protecting their own privacy.
- I value other people's privacy as much as I value mine.
- Even when somebody is not careful about his/her privacy, I do my best to respect that person's privacy.
- I always do my best not to intrude into other people's private lives.
- Respect for others' privacy should be an important priority in social relations.

APPENDIX W

THE INTEGRITY SCALE

The following questions ask about your preferences, perceptions, opinions, and actions. There are no right or wrong answers, and people differ in their opinions.

Please read each statement and indicate the strength of your agreement or disagreement, where:

- 1 = Strongly disagree
- 2 = Disagree
- 3 = Neutral (neither agree nor disagree)
- 4 = Agree
- 5 = Strongly agree

1. It is foolish to tell the truth when big profits can be made by lying.
2. No matter how much money one makes, life is unsatisfactory without a strong sense of duty and character.
3. Regardless of concerns about principles, in today's world you have to be practical, adapt to opportunities, and do what is most advantageous for you.
4. Being inflexible and refusing to compromise are good if it means standing up for what is right.
5. The reason it is important to tell the truth is because of what others will do to you if you don't, not because of any issue of right and wrong.
6. The true test of character is a willingness to stand by one's principles, no matter what price one has to pay.
7. There are no principles worth dying for.
8. It is important to me to feel that I have not compromised my principles.
9. If one believes something is right, one must stand by it, even if it means losing friends or missing out on profitable opportunities.
10. Compromising one's principles is always wrong, regardless of the circumstances or the amount that can be personally gained.
11. Universal ethical principles exist and should be applied under all circumstances, with no exceptions.
12. Lying is sometimes necessary to accomplish important, worthwhile goals.
13. Integrity is more important than financial gain.
14. It is important to fulfill one's obligations at all times, even when nobody will know if one doesn't.
15. If done for the right reasons, even lying or cheating are ok.
16. Some actions are wrong no matter what the consequences or justification.
17. One's principles should not be compromised regardless of the possible gain.

18. Some transgressions are wrong and cannot be legitimately justified or defended regardless of how much one tries.

APPENDIX Y

ROSENBERG SELF-ESTEEM SCALE (RSES)

Instructions

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. On the whole, I am satisfied with myself.

<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
-----------------------	--------------	-----------------	--------------------------
2. At times I think I am no good at all.

<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
-----------------------	--------------	-----------------	--------------------------
3. I feel that I have a number of good qualities.

<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
-----------------------	--------------	-----------------	--------------------------
4. I am able to do things as well as most other people.

<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
-----------------------	--------------	-----------------	--------------------------
5. I feel I do not have much to be proud of.

<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
-----------------------	--------------	-----------------	--------------------------
6. I certainly feel useless at times.

<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
-----------------------	--------------	-----------------	--------------------------
7. I feel that I'm a person of worth, at least on an equal plane with others.

<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
-----------------------	--------------	-----------------	--------------------------
8. I wish I could have more respect for myself.

<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
-----------------------	--------------	-----------------	--------------------------
9. All in all, I am inclined to feel that I am a failure.

<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
-----------------------	--------------	-----------------	--------------------------
10. I take a positive attitude toward myself.

<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
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APPENDIX Z

THE BIG FIVE INVENTORY (BFI)

How I am in general

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *likes to spend time with others*? Please write a number next to each statement to indicate the extent to which **you agree or disagree with that statement.**

1 Disagree Strongly	2 Disagree a little	3 Neither agree nor disagree	4 Agree a little	5 Agree strongly
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I am 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

TABLE 1
STUDY ONE (PILOT) ITEM ENDORSEMENT AND VARIABILITY

Descriptive Statistics						
Item	N	Range	Minimum	Maximum	Mean	Std. Deviation
BRAVING_1	157	4	1	5	4.03	1.12
BRAVING_2	157	4	1	5	3.71	1.01
BRAVING_3	157	4	1	5	3.92	0.99
BRAVING_4	157	4	1	5	4.10	0.97
BRAVING_5	157	4	1	5	4.06	0.94
BRAVING_6	157	4	1	5	3.92	1.11
BRAVING_7	157	4	1	5	3.96	0.99
BRAVING_8	157	4	1	5	3.96	1.01
BRAVING_9	157	4	1	5	4.02	0.96
BRAVING_10	157	4	1	5	4.18	0.87
BRAVING_11	157	4	1	5	3.98	0.98
BRAVING_12	157	4	1	5	4.03	0.94
BRAVING_13	157	4	1	5	3.73	1.06
BRAVING_14	157	4	1	5	3.90	0.99
BRAVING_15	157	4	1	5	4.11	0.95
BRAVING_16	157	4	1	5	4.15	0.86
BRAVING_17	157	4	1	5	4.22	0.87
BRAVING_18	157	4	1	5	4.17	0.97
BRAVING_19	157	4	1	5	4.06	0.97
BRAVING_20	157	4	1	5	3.92	0.99
BRAVING_21	157	4	1	5	3.63	1.01
BRAVING_22	157	4	1	5	3.64	1.07
BRAVING_23	157	4	1	5	3.78	0.98
BRAVING_24	157	4	1	5	4.22	0.82
BRAVING_25	157	4	1	5	4.02	0.93
BRAVING_26	157	4	1	5	3.89	1.02
BRAVING_27	157	4	1	5	4.06	0.91
BRAVING_28	156	3	2	5	4.13	0.79

Table 1 (cont'd)

Item	N	Range	Minimum	Maximum	Mean	Std. Deviation
BRAVING_29	157	4	1	5	3.87	1.04
BRAVING_30	157	4	1	5	3.97	1.00
BRAVING_31	157	4	1	5	4.06	1.00
BRAVING_32	157	4	1	5	4.10	0.86
BRAVING_33	157	4	1	5	4.08	0.93
BRAVING_34	157	4	1	5	3.99	0.90
BRAVING_35	156	3	2	5	4.26	0.80
BRAVING_36	156	4	1	5	3.88	0.97
BRAVING_37	156	4	1	5	3.65	1.11
BRAVING_38	156	4	1	5	3.78	1.04
BRAVING_39	156	4	1	5	3.85	0.96
BRAVING_40	155	4	1	5	3.96	0.95
BRAVING_41	157	4	1	5	3.63	1.15
BRAVING_42	157	4	1	5	3.89	0.98
BRAVING_43	157	4	1	5	3.96	0.91
BRAVING_44	157	4	1	5	4.19	0.79
BRAVING_45	157	4	1	5	4.01	0.94
BRAVING_46	157	4	1	5	4.06	0.84
BRAVING_47	157	4	1	5	4.08	0.86
BRAVING_48	155	4	1	5	4.12	0.88
BRAVING_49	156	4	1	5	3.92	1.04
BRAVING_50	156	3	2	5	4.01	0.84
BRAVING_51	156	4	1	5	3.71	1.13
BRAVING_52	156	4	1	5	4.14	0.90
BRAVING_53	156	4	1	5	4.00	0.93
BRAVING_54	156	4	1	5	4.16	0.95
BRAVING_55	156	4	1	5	3.75	1.01
BRAVING_56	156	4	1	5	3.96	0.98
BRAVING_57	156	4	1	5	3.95	1.04
BRAVING_58	156	4	1	5	3.58	1.12
BRAVING_59	156	4	1	5	4.09	0.85
BRAVING_60	155	4	1	5	4.10	0.86
BRAVING_61	157	4	1	5	3.94	1.03
BRAVING_62	157	4	1	5	4.13	0.91
BRAVING_63	157	4	1	5	4.04	0.93

Table 1 (cont'd)

Item	N	Range	Minimum	Maximum	Mean	Std. Deviation
BRAVING_64	157	4	1	5	4.18	0.85
BRAVING_65	157	4	1	5	3.93	0.96
BRAVING_66	157	4	1	5	4.03	0.95
BRAVING_67	157	3	2	5	3.94	0.91
BRAVING_68	157	4	1	5	4.12	0.92
BRAVING_69	157	4	1	5	4.03	0.95
BRAVING_68	157	4	1	5	4.12	0.92
BRAVING_69	157	4	1	5	4.03	0.95

TABLE 2
STUDY ONE (PILOT) ITEM DISCRIMINATION BY ELEMENT SUBSCALE

Boundaries Inter-Item Correlation Matrix										
Item	3	8	11	34	39	46	53	55	58	65
3	1.00	0.58	0.66	0.50	0.52	0.30	0.41	0.46	0.32	0.54
8	0.58	1.00	0.63	0.50	0.52	0.41	0.57	0.46	0.32	0.59
11	0.66	0.63	1.00	0.49	0.48	0.43	0.51	0.52	0.36	0.57
34	0.50	0.50	0.49	1.00	0.47	0.52	0.57	0.44	0.47	0.41
39	0.52	0.52	0.48	0.47	1.00	0.48	0.43	0.39	0.32	0.56
46	0.30	0.41	0.43	0.52	0.48	1.00	0.47	0.43	0.37	0.46
53	0.41	0.57	0.51	0.57	0.43	0.47	1.00	0.50	0.35	0.50
55	0.46	0.46	0.52	0.44	0.39	0.43	0.50	1.00	0.38	0.48
58	0.32	0.32	0.36	0.47	0.32	0.37	0.35	0.38	1.00	0.26
65	0.54	0.59	0.57	0.41	0.56	0.46	0.50	0.48	0.26	1.00

Reliability Inter-Item Correlation Matrix											
Item	10	19	21	25	27	29	33	43	50	60	66
10	1.00	0.57	0.35	0.45	0.61	0.52	0.49	0.46	0.48	0.35	0.32
19	0.57	1.00	0.24	0.36	0.51	0.54	0.47	0.42	0.45	0.46	0.38
21	0.35	0.24	1.00	0.37	0.32	0.30	0.39	0.24	0.36	0.16	0.34
25	0.45	0.36	0.37	1.00	0.53	0.42	0.41	0.36	0.46	0.27	0.37
27	0.61	0.51	0.32	0.53	1.00	0.62	0.61	0.56	0.61	0.44	0.40
29	0.52	0.54	0.30	0.42	0.62	1.00	0.56	0.53	0.52	0.45	0.59
33	0.49	0.47	0.39	0.41	0.61	0.56	1.00	0.55	0.55	0.59	0.48
43	0.46	0.42	0.24	0.36	0.56	0.53	0.55	1.00	0.53	0.45	0.40
50	0.48	0.45	0.36	0.46	0.61	0.52	0.55	0.53	1.00	0.60	0.42
60	0.35	0.46	0.16	0.27	0.44	0.45	0.59	0.45	0.60	1.00	0.46
66	0.32	0.38	0.34	0.37	0.40	0.59	0.48	0.40	0.42	0.46	1.00

Table 2 (cont'd)

Accountability Inter-Item Correlation Matrix										
Item	4	16	18	24	28	35	44	52	54	59
4	1.00	0.68	0.48	0.44	0.55	0.40	0.40	0.42	0.44	0.50
16	0.68	1.00	0.55	0.50	0.68	0.57	0.53	0.50	0.55	0.52
18	0.48	0.55	1.00	0.53	0.62	0.58	0.54	0.60	0.66	0.56
24	0.44	0.50	0.53	1.00	0.63	0.58	0.57	0.43	0.62	0.60
28	0.55	0.68	0.62	0.63	1.00	0.70	0.61	0.57	0.66	0.67
35	0.40	0.57	0.58	0.58	0.70	1.00	0.46	0.59	0.67	0.57
44	0.40	0.53	0.54	0.57	0.61	0.46	1.00	0.43	0.49	0.46
52	0.42	0.50	0.60	0.43	0.57	0.59	0.43	1.00	0.62	0.59
54	0.44	0.55	0.66	0.62	0.66	0.67	0.49	0.62	1.00	0.61
59	0.50	0.52	0.56	0.60	0.67	0.57	0.46	0.59	0.61	1.00

Vault Inter-Item Correlation Matrix										
Item	7	12	14	30	32	36	40	47	56	62
7	1.00	0.53	0.45	0.52	0.56	0.48	0.42	0.50	0.55	0.48
12	0.53	1.00	0.53	0.53	0.51	0.36	0.38	0.37	0.47	0.45
14	0.45	0.53	1.00	0.56	0.46	0.45	0.46	0.44	0.45	0.36
30	0.52	0.53	0.56	1.00	0.61	0.46	0.67	0.47	0.68	0.59
32	0.56	0.51	0.46	0.61	1.00	0.56	0.49	0.51	0.64	0.60
36	0.48	0.36	0.45	0.46	0.56	1.00	0.42	0.45	0.54	0.45
40	0.42	0.38	0.46	0.67	0.49	0.42	1.00	0.44	0.55	0.52
47	0.50	0.37	0.44	0.47	0.51	0.45	0.44	1.00	0.51	0.42
56	0.55	0.47	0.45	0.68	0.64	0.54	0.55	0.51	1.00	0.66
62	0.48	0.45	0.36	0.59	0.60	0.45	0.52	0.42	0.66	1.00

Integrity Inter-Item Correlation Matrix										
Item	5	9	15	17	31	45	48	63	64	68
5	1.00	0.53	0.61	0.40	0.50	0.50	0.36	0.48	0.44	0.44
9	0.53	1.00	0.55	0.42	0.52	0.45	0.48	0.49	0.54	0.45
15	0.61	0.55	1.00	0.44	0.55	0.44	0.48	0.49	0.46	0.50
17	0.40	0.42	0.44	1.00	0.52	0.45	0.48	0.41	0.53	0.57
31	0.50	0.52	0.55	0.52	1.00	0.60	0.46	0.55	0.61	0.56
45	0.50	0.45	0.44	0.45	0.60	1.00	0.51	0.65	0.48	0.52
48	0.36	0.48	0.48	0.48	0.46	0.51	1.00	0.51	0.52	0.54
63	0.48	0.49	0.49	0.41	0.55	0.65	0.51	1.00	0.63	0.50
64	0.44	0.54	0.46	0.53	0.61	0.48	0.52	0.63	1.00	0.57
68	0.44	0.45	0.50	0.57	0.56	0.52	0.54	0.50	0.57	1.00

Table 2 (cont'd)

Nonjudgement Inter-Item Correlation Matrix									
Item	1	13	20	22	37	41	51	63	69
1	1.00	0.44	0.32	0.35	0.37	0.42	0.42	0.53	0.52
13	0.44	1.00	0.49	0.45	0.42	0.52	0.48	0.45	0.58
20	0.32	0.49	1.00	0.48	0.63	0.60	0.64	0.38	0.49
22	0.35	0.45	0.48	1.00	0.49	0.46	0.47	0.31	0.43
37	0.37	0.42	0.63	0.49	1.00	0.59	0.61	0.42	0.43
41	0.42	0.52	0.60	0.46	0.59	1.00	0.62	0.53	0.52
51	0.42	0.48	0.64	0.47	0.61	0.62	1.00	0.43	0.53
63	0.53	0.45	0.38	0.31	0.42	0.53	0.43	1.00	0.55
69	0.52	0.58	0.49	0.43	0.43	0.52	0.53	0.55	1.00

Generosity Inter-Item Correlation Matrix									
Item	2	6	23	26	38	42	57	61	67
2	1.00	0.53	0.42	0.34	0.45	0.43	0.38	0.44	0.40
6	0.53	1.00	0.48	0.46	0.49	0.50	0.39	0.43	0.51
23	0.42	0.48	1.00	0.59	0.58	0.64	0.51	0.39	0.54
26	0.34	0.46	0.59	1.00	0.54	0.67	0.46	0.52	0.59
38	0.45	0.49	0.58	0.54	1.00	0.64	0.51	0.38	0.59
42	0.43	0.50	0.64	0.67	0.64	1.00	0.60	0.44	0.65
57	0.38	0.39	0.51	0.46	0.51	0.60	1.00	0.46	0.58
61	0.44	0.43	0.39	0.52	0.38	0.44	0.46	1.00	0.45
67	0.40	0.51	0.54	0.59	0.59	0.65	0.58	0.45	1.00

TABLE 3
STUDY ONE (PILOT) ALPHA DELETED ANALYSIS BY ELEMENT SUB-SCALES

Boundaries					
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
3	35.12	39.45	0.66	0.56	0.88
8	35.08	38.72	0.71	0.55	0.88
11	35.04	38.93	0.72	0.58	0.88
34	35.05	40.21	0.67	0.52	0.88
39	35.19	40.04	0.64	0.45	0.88
46	34.97	41.58	0.59	0.42	0.89
53	35.03	40.06	0.66	0.49	0.88
55	35.28	39.76	0.62	0.41	0.89
58	35.44	40.85	0.47	0.28	0.90
65	35.10	39.65	0.67	0.51	0.88
Reliability					
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
10	39.77	43.75	0.65	0.50	0.89
19	39.89	43.20	0.62	0.44	0.89
21	40.32	45.26	0.42	0.28	0.90
25	39.94	44.24	0.56	0.36	0.89
27	39.88	42.39	0.74	0.62	0.88
29	40.08	41.27	0.72	0.58	0.88
33	39.86	42.27	0.73	0.58	0.88
43	39.99	43.60	0.63	0.44	0.89
50	39.94	43.50	0.71	0.56	0.88
60	39.84	44.50	0.59	0.53	0.89
66	39.92	43.73	0.59	0.44	0.89

Table 3 (cont'd)

Accountability					
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
4	37.66	35.23	0.61	0.51	0.92
16	37.58	35.05	0.73	0.62	0.92
18	37.58	33.90	0.74	0.56	0.92
24	37.54	35.79	0.70	0.55	0.92
28	37.63	34.60	0.82	0.70	0.91
35	37.49	35.43	0.73	0.60	0.92
44	37.55	36.65	0.63	0.47	0.92
52	37.60	35.10	0.68	0.52	0.92
54	37.58	33.79	0.77	0.63	0.91
59	37.68	34.85	0.73	0.57	0.92

Vault					
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
7	36.11	39.26	0.67	0.47	0.90
12	36.01	40.54	0.61	0.44	0.90
14	36.16	39.77	0.62	0.44	0.90
30	36.10	37.98	0.77	0.65	0.89
32	35.95	39.97	0.75	0.58	0.90
36	36.19	39.96	0.61	0.42	0.90
40	36.11	39.77	0.65	0.50	0.90
47	35.99	41.03	0.61	0.39	0.90
56	36.09	38.58	0.76	0.62	0.89
62	35.93	39.96	0.68	0.53	0.90

Table 3 (cont'd)

Integrity					
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
5	37.01	37.51	0.63	0.47	0.90
9	37.05	37.03	0.66	0.46	0.90
15	36.93	37.24	0.67	0.52	0.90
17	36.84	38.24	0.62	0.43	0.90
31	36.99	36.12	0.73	0.56	0.90
45	37.05	36.92	0.68	0.56	0.90
48	36.95	37.84	0.64	0.45	0.90
63	37.01	37.06	0.70	0.58	0.90
64	36.88	37.54	0.71	0.58	0.90
68	36.93	37.33	0.69	0.51	0.90
Nonjudgement					
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
1	30.35	39.89	0.56	0.39	0.89
13	30.62	39.37	0.65	0.45	0.88
20	30.45	39.41	0.69	0.56	0.88
22	30.73	40.02	0.58	0.36	0.89
37	30.72	38.52	0.67	0.52	0.88
41	30.74	37.43	0.73	0.56	0.87
51	30.66	37.80	0.72	0.56	0.88
63	30.32	40.96	0.61	0.45	0.88
69	30.35	39.83	0.69	0.52	0.88

Table 3 (cont'd)

Generosity					
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
2	31.05	38.39	0.56	0.39	0.90
6	30.84	36.76	0.63	0.44	0.89
23	30.97	37.15	0.69	0.52	0.89
26	30.87	36.85	0.70	0.57	0.88
38	30.97	36.58	0.70	0.52	0.88
42	30.86	36.28	0.77	0.65	0.88
57	30.80	37.21	0.64	0.47	0.89
61	30.81	37.98	0.58	0.40	0.89
67	30.82	37.56	0.72	0.55	0.88

TABLE 4
STUDY ONE (PILOT) ITEM CRITERION-RELATED VALIDITY (SHAME)

Item	Shame Pearson Correlation
BRAVING_1	-.09
BRAVING_2	-.07
BRAVING_3	-.07
BRAVING_4	-.07
BRAVING_5	-.00
BRAVING_6	-.14
BRAVING_7	-.07
BRAVING_8	-.04
BRAVING_9	-.12
BRAVING_10	-.05
BRAVING_11	-.02
BRAVING_12	-.08
BRAVING_13	-.01
BRAVING_14	-.05
BRAVING_15	-.06
BRAVING_16	-.06
BRAVING_17	-.06
BRAVING_18	-.09
BRAVING_19	.00
BRAVING_20	-.01
BRAVING_21	.07
BRAVING_22	-.07
BRAVING_23	.07
BRAVING_24	-.06
BRAVING_25	.02
BRAVING_26	-.01
BRAVING_27	-.05
BRAVING_28	-.16
BRAVING_29	-.08

Table 4 (cont'd)

Item	Shame Pearson Correlation
BRAVING_30	-.07
BRAVING_31	-.09
BRAVING_32	-.03
BRAVING_33	-.15
BRAVING_34	-.06
BRAVING_35	-.16*
BRAVING_36	-.10
BRAVING_37	.02
BRAVING_38	-.06
BRAVING_39	-.08
BRAVING_40	-.09
BRAVING_41	.10
BRAVING_42	.01
BRAVING_43	-.11
BRAVING_44	-.06
BRAVING_45	-.09
BRAVING_46	.01
BRAVING_47	.02
BRAVING_48	-.04
BRAVING_49	-.09
BRAVING_50	-.08
BRAVING_51	-.01
BRAVING_52	-.06
BRAVING_53	-.09
BRAVING_54	-.08
BRAVING_55	.10
BRAVING_56	-.08
BRAVING_57	-.10
BRAVING_58	-.03
BRAVING_59	-.10
BRAVING_60	-.17*
BRAVING_61	-.13
BRAVING_62	-.12
BRAVING_63	-.11

Table 4 (cont'd)

Item	Shame Pearson Correlation
BRAVING_64	-.15
BRAVING_65	-.07
BRAVING_66	-.07
BRAVING_67	-.14
BRAVING_68	-.06
BRAVING_69	-.13

Note.

* Correlation is significant at the 0.05 level (2-tailed).

TABLE 5
STUDY ONE (PILOT) ITEM CRITERION-RELATED VALIDITY (GUILT)

Item	Guilt Pearson Correlation
BRAVING_1	.38**
BRAVING_2	.27**
BRAVING_3	.30**
BRAVING_4	.36**
BRAVING_5	.32**
BRAVING_6	.25**
BRAVING_7	.34**
BRAVING_8	.23**
BRAVING_9	.31**
BRAVING_10	.35**
BRAVING_11	.28**
BRAVING_12	.31**
BRAVING_13	.23**
BRAVING_14	.18*
BRAVING_15	.32**
BRAVING_16	.39**
BRAVING_17	.32**
BRAVING_18	.34**
BRAVING_19	.33**
BRAVING_20	.22**
BRAVING_21	.19*
BRAVING_22	.16*
BRAVING_23	.27**
BRAVING_24	.37**
BRAVING_25	.39**
BRAVING_26	.22**
BRAVING_27	.35**
BRAVING_28	.38**
BRAVING_29	.26**

Table 5 (cont'd)

Item	Guilt Pearson Correlation
BRAVING_30	.32**
BRAVING_31	.38**
BRAVING_32	.39**
BRAVING_33	.30**
BRAVING_34	.25**
BRAVING_35	.37**
BRAVING_36	.21**
BRAVING_37	.16
BRAVING_38	.20*
BRAVING_39	.31**
BRAVING_40	.25**
BRAVING_41	.27**
BRAVING_42	.25**
BRAVING_43	.26**
BRAVING_44	.40**
BRAVING_45	.33**
BRAVING_46	.29**
BRAVING_47	.36**
BRAVING_48	.30**
BRAVING_49	.20*
BRAVING_50	.28**
BRAVING_51	.22**
BRAVING_52	.36**
BRAVING_53	.22**
BRAVING_54	.44**
BRAVING_55	.17*
BRAVING_56	.39**
BRAVING_57	.30**
BRAVING_58	.12
BRAVING_59	.39**
BRAVING_60	.35**
BRAVING_61	.27**
BRAVING_62	.39**
BRAVING_63	.35**

Table 5 (cont'd)

Item	Guilt Pearson Correlation
BRAVING_64	.41**
BRAVING_65	.36**
BRAVING_66	.18*
BRAVING_67	.23**
BRAVING_68	.36**
BRAVING_69	.39**

Note. **. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

TABLE 6
STUDY ONE (PILOT) IMPRESSION MANAGEMENT

Item	Social Desirability Pearson Correlation
BRAVING_1	.30**
BRAVING_2	.27**
BRAVING_3	.25**
BRAVING_4	.35**
BRAVING_5	.18*
BRAVING_6	.30**
BRAVING_7	.19*
BRAVING_8	.34**
BRAVING_9	.23**
BRAVING_10	.22**
BRAVING_11	.22**
BRAVING_12	.22**
BRAVING_13	.29**
BRAVING_14	.18*
BRAVING_15	.26**
BRAVING_16	.34**
BRAVING_17	.31**
BRAVING_18	.32**
BRAVING_19	.19*
BRAVING_20	.25**
BRAVING_21	.09
BRAVING_22	.34**
BRAVING_23	.23**
BRAVING_24	.25**
BRAVING_25	.12
BRAVING_26	.17*
BRAVING_27	.37**
BRAVING_28	.40**
BRAVING_29	.30**

Table 6 (cont'd)

Item	Social Desirability Pearson Correlation
BRAVING_30	.30**
BRAVING_31	.32**
BRAVING_32	.32**
BRAVING_33	.37**
BRAVING_34	.27**
BRAVING_35	.28**
BRAVING_36	.24**
BRAVING_37	.21**
BRAVING_38	.28**
BRAVING_39	.38**
BRAVING_40	.33**
BRAVING_41	.24**
BRAVING_42	.32**
BRAVING_43	.34**
BRAVING_44	.29**
BRAVING_45	.28**
BRAVING_46	.20*
BRAVING_47	.21*
BRAVING_48	.28**
BRAVING_49	.25**
BRAVING_50	.31**
BRAVING_51	.23**
BRAVING_52	.19*
BRAVING_53	.26**
BRAVING_54	.29**
BRAVING_55	.09
BRAVING_56	.25**
BRAVING_57	.37**
BRAVING_58	.23**
BRAVING_59	.25**
BRAVING_60	.34**
BRAVING_61	.33**
BRAVING_62	.26**
BRAVING_63	.34**

Table 6 (cont'd)

Item	Social Desirability Pearson Correlation
BRAVING_64	.31**
BRAVING_65	.27**
BRAVING_66	.17*
BRAVING_67	.25**
BRAVING_68	.30**
BRAVING_69	.35**

Note. **. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

TABLE 7
STUDY ONE (EFA) FINAL ROTATED FACTOR MATRIX

Rotated Factor Matrix (Five Factors)					
	Factor				
	1	2	3	4	5
BRAVING_64	0.81				
BRAVING_38	0.78				
BRAVING_59	0.78				
BRAVING_66	0.71				
BRAVING_31	0.66				
BRAVING_54		0.68			
BRAVING_40		0.61			
BRAVING_68		0.60			
BRAVING_24		0.60			
BRAVING_34		0.58			
BRAVING_5			0.64		
BRAVING_22			0.63		
BRAVING_61			0.60		
BRAVING_48			0.52		
BRAVING_70			0.50		
BRAVING_17			0.48		
BRAVING_47				0.67	
BRAVING_57				0.67	
BRAVING_27				0.62	
BRAVING_49				0.59	
BRAVING_11				0.53	
BRAVING_10					0.71
BRAVING_30					0.70
BRAVING_53					0.58
BRAVING_2					0.54
BRAVING_20					0.52

Note. Extraction Method: Maximum Likelihood. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 7 iterations.

TABLE 8
STUDY TWO (EFA) INTERNAL CONSISTENCY

Factor	Cronbach's Alpha	Number of Items
Reliability-Accountability (RA)	.85	6
Vault (V)	.81	5
Integrity (I)	.85	5
Nonjudgement (N)	.90	5
Generosity (G)	.83	5
RA-VING	.93	26

TABLE 9
STUDY TWO (EFA) CORRELATIONS TABLE

Item	Nonjudgement	Integrity	Reliability- Accountability	Vault	Generosity
Nonjudgement	1	0.02	0.03	0.00	.09*
Integrity	0.02	1	.20**	0.07	0.07
Reliability- Accountability	0.03	.20**	1	.13**	0.01
Vault	0.00	0.07	.13**	1	0.06
Generosity	.09*	0.07	0.01	0.06	1

Note.

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

TABLE 10

STUDY TWO (EFA) COMPARATIVE MODELS: THREE FACTOR MODEL

Rotated Factor Matrix (Three Factors)			
	Factor		
	1	2	3
BRAVING_54	0.69		
BRAVING_61	0.67		
BRAVING_48	0.67		
BRAVING_24	0.66		
BRAVING_34	0.65		
BRAVING_70	0.65		
BRAVING_5	0.64		
BRAVING_22	0.62		
BRAVING_68	0.61		
BRAVING_17	0.60		
BRAVING_40	0.57		
BRAVING_57	0.54		
BRAVING_47	0.53		
BRAVING_27	0.50		
BRAVING_49	0.49		
BRAVING_11	0.43		
BRAVING_64		0.82	
BRAVING_59		0.78	
BRAVING_38		0.77	
BRAVING_66		0.71	
BRAVING_31		0.67	
BRAVING_30			0.72
BRAVING_10			0.69
BRAVING_53			0.62
BRAVING_2			0.52
BRAVING_20			0.52

Table 10 (cont'd)

Note. Extraction Method: Maximum Likelihood.
Rotation Method: Varimax with Kaiser
Normalization.
Rotation converged in 5 iterations.

TABLE 11
STUDY TWO (EFA) COMPARATIVE MODELS: FOUR FACTOR MODEL

Rotated Factor Matrix (4 Factors)				
	Factor			
	1	2	3	4
BRAVING_54	0.72			
BRAVING_24	0.67			
BRAVING_34	0.66			
BRAVING_68	0.65			
BRAVING_61	0.62			
BRAVING_40	0.61			
BRAVING_5	0.59			
BRAVING_70	0.59			
BRAVING_48	0.58			
BRAVING_17	0.54			
BRAVING_22	0.53			
BRAVING_64		0.82		
BRAVING_59		0.78		
BRAVING_38		0.78		
BRAVING_66		0.70		
BRAVING_31		0.67		
BRAVING_57			0.67	
BRAVING_47			0.65	
BRAVING_27			0.62	
BRAVING_49			0.55	
BRAVING_11			0.54	
BRAVING_30				0.72
BRAVING_10				0.69
BRAVING_53				0.60
BRAVING_2				0.52
BRAVING_20				0.51

Table 11 (cont'd)

Note. Extraction Method: Maximum Likelihood.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 6 iterations.

TABLE 12

STUDY THREE (CFA) VALIDITY PREDICTIONS BETWEEN THE BFI AND RSTI

RSTI	The Big Five Inventory (BFI)				
	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness
RA	+ M	+ M	+ S	- M	+ M
V	- W	+ W	+ W	- W	+ W
I	+ W	+ M	+ M	- W	+ M
N	+ S	+ M	- W	+ W	+ W
G	+ M	+ M	+ M	- W	+ W

Note.

+ Predicted positive correlation.

- Predicted negative correlation.

W: Predicted weak correlation.

M: Predicted moderate correlation.

S: Predicted strong correlation.

TABLE 13
STUDY THREE (CFA) INTERNAL CONSISTENCY

Factor	Cronbach's Alpha	Number of Items
Reliability-Accountability (RA)	.81	6
Vault (V)	.83	5
Integrity (I)	.86	5
Nonjudgement (N)	.89	5
Generosity (G)	.88	5

TABLE 14
INTER-ITEM CORRELATIONS FOR THE RSTI FACTORS

Reliability-Accountability Inter-Item Correlation Matrix						
Item	RSTI_1	RSTI_6	RSTI_11	RSTI_16	RSTI_21	RSTI_26
RSTI_1	1.00	0.32	0.42	0.47	0.30	0.35
RSTI_6	0.32	1.00	0.26	0.40	0.45	0.57
RSTI_11	0.42	0.26	1.00	0.52	0.47	0.32
RSTI_16	0.47	0.40	0.52	1.00	0.45	0.54
RSTI_21	0.30	0.45	0.47	0.45	1.00	0.56
RSTI_26	0.35	0.57	0.32	0.54	0.56	1.00

Vault Inter-Item Correlation Matrix					
Item	RSTI_2	RSTI_7	RSTI_12	RSTI_17	RSTI_22
RSTI_2	1.00	0.55	0.45	0.40	0.42
RSTI_7	0.55	1.00	0.48	0.52	0.48
RSTI_12	0.45	0.48	1.00	0.60	0.54
RSTI_17	0.40	0.52	0.60	1.00	0.55
RSTI_22	0.42	0.48	0.54	0.55	1.00

Integrity Inter-Item Correlation Matrix					
Item	RSTI_3	RSTI_8	RSTI_13	RSTI_18	RSTI_23
RSTI_3	1.00	0.40	0.48	0.58	0.64
RSTI_8	0.40	1.00	0.53	0.51	0.56
RSTI_13	0.48	0.53	1.00	0.57	0.60
RSTI_18	0.58	0.51	0.57	1.00	0.72
RSTI_23	0.64	0.56	0.60	0.72	1.00

Table 14 (cont'd)

Nonjudgement Inter-Item Correlation Matrix					
Item	RSTI_4	RSTI_9	RSTI_14	RSTI_19	RSTI_24
RSTI_4	1.00	0.66	0.47	0.63	0.61
RSTI_9	0.66	1.00	0.52	0.72	0.71
RSTI_14	0.47	0.52	1.00	0.59	0.51
RSTI_19	0.63	0.72	0.59	1.00	0.76
RSTI_24	0.61	0.71	0.51	0.76	1.00

Generosity Inter-Item Correlation Matrix					
Item	RSTI_5	RSTI_10	RSTI_15	RSTI_20	RSTI_25
RSTI_5	1.00	0.52	0.56	0.64	0.52
RSTI_10	0.52	1.00	0.55	0.58	0.55
RSTI_15	0.56	0.55	1.00	0.70	0.65
RSTI_20	0.64	0.58	0.70	1.00	0.63
RSTI_25	0.52	0.55	0.65	0.63	1.00

TABLE 15
 STUDY THREE (CFA) VALIDITY CORRELATIONS BETWEEN THE BFI AND
 RSTI

RSTI	The Big Five Inventory (BFI)				
	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness
RA					
Prediction	+ M	+ M	+ S	- M	+ M
Actual	+ W	+ W	+ M	- W	+ W
Correlation	.24**	.41**	.57**	-.33**	.25**
V					
Prediction	- W	+ W	+ W	- W	+ W
Actual	+ W	+ W	+ M	- W	+ W
Correlation	.08	.31**	.42**	-.15*	.20**
I					
Prediction	+ W	+ M	+ M	- W	+ M
Actual	+ W	+ W	+ M	- W	+ W
Correlation	.17**	.36**	.45**	-.16*	.19**
N					
Prediction	+ S	+ M	- W	+ W	+ W
Actual	+ W	+ W	- W	+ W	+ W
Correlation	.36**	.29**	.24**	-.26**	.19**
G					
Prediction	+ M	+ M	+ M	- W	+ W
Actual	+ M	+ W	+ W	- M	+ W
Correlation	.41**	.32**	.37**	-.50**	.24**

Note.

+. Positive association.

-. Negative association.

W. Weak association

M. Moderate association

S. Strong association.

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed.)

TABLE 16
 STUDY THREE (CFA) STANDARDIZED LOADINGS FOR THE RSTI FIVE-
 FACTOR MODEL

Factor	Item	<i>B</i>	SE	[95% Confidence Interval]	
Reliability-Accountability	1	.55**	.05	.46	.64
	6	.65**	.04	.57	.73
	11	.57**	.05	.48	.66
	16	.72**	.03	.65	.79
	21	.70**	.04	.63	.77
	26	.74**	.03	.67	.80
Vault	2	.60**	.05	.51	.69
	7	.71**	.04	.64	.79
	12	.76**	.03	.69	.82
	17	.74**	.03	.67	.80
	22	.72**	.04	.64	.79
Integrity	3	.68**	.04	.60	.75
	8	.68**	.04	.61	.75
	13	.73**	.03	.66	.79
	18	.81**	.03	.76	.86
	23	.85**	.02	.81	.90
Nonjudgement	4	.73**	.03	.67	.80
	9	.83**	.02	.78	.88
	14	.64**	.04	.56	.71
	19	.89**	.02	.86	.93
	24	.84**	.02	.79	.88
Generosity	5	.71**	.03	.64	.78
	10	.72**	.03	.65	.79
	15	.81**	.03	.76	.86
	20	.85**	.02	.81	.89
	25	.76**	.03	.71	.82

Note. ** $p < .001$

TABLE 17
 STUDY THREE (CFA) COVARIANCE ESTIMATES BETWEEN FACTORS IN RSTI
 FIVE-FACTOR MODEL

Covariance	<i>B</i>	SE	[95% Confidence Interval]	
Reliability/Accountability-Vault	.75**	.04	.67	.83
Reliability/Accountability-Integrity	.84**	.03	.78	.90
Reliability/Accountability-Nonjudgement	.44**	.06	.32	.56
Reliability/Accountability-Generosity	.65**	.05	.55	.74
Vault-Integrity	.70**	.04	.62	.79
Vault-Nonjudgement	.20**	.07	.06	.33
Vault-Generosity	.45**	.06	.33	.57
Integrity-Nonjudgement	.39**	.06	.28	.51
Integrity-Generosity	.50**	.05	.40	.61
Nonjudgement-Generosity	.62**	.05	.53	.71

Note. ** $p < .001$