Empathy and Situational Appraisal as Moderators of the Relationship
Between Shame, Social Support, and Resilience

by
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Liberty University

A Dissertation Presented in Partial Fulfillment
Of the Requirements for the Degree
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Abstract

The current study investigated the interrelated roles of trait-shame, perceived social support, empathy, and situational appraisal style in the context of their influence on psychological resilience, and provided quantitative evidence of the conditional patterns of influence exerted by these constructs on psychological resilience. The study focused on quantifying the moderating influence of empathy and situational appraisal style on the relationships between trait-shame, social support, and psychological resilience through a mediated moderation model which presented a novel approach to conceptualizing these interactions. Supporting evidence was found for the mediating role of social support on the shame-resilience interaction as well as for conditional moderating influence exerted by the combination of empathy and situational appraisal style on the relationship between shame, social support, and resilience. However, the findings suggest that despite having found several significant interactions, there may be more complex conditional interactions governing the resilience outcomes than accounted for in the tested models. Along with the discussion of the findings as they relate to existing research, the limitations of the study and future research directions are discussed. Additionally, the implications of current findings are discussed in the context of their contribution to the scientific understanding of resilience along with wider implications of the findings for social policy contexts as well as in the context of Christian world view and ministry practices.

Keywords: Empathy, Shame, Situational Appraisal Style, Resilience, Social Support
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List of Abbreviations

Adverse Childhood Experience (ACE)

American Counseling Association (ACA)

Cognitive Emotional Regulation Questionnaire (short version) (CERQ-short)

Covariate 1/Mediator/Social Support (Mi)

Covariate 2/Moderator 1/Empathy (W)

Covariate 3/Moderator 2/Situational Appraisal style (Z)

Dependent Variable/Resilience (Y)

Hypothesis 1 (H1)

Hypothesis 2 (H2)

Hypothesis 3 (H3)

Institutional Review Board (IRB)

Interpersonal Reactivity Index (IRI)

Negative Situational Appraisal (Neg_SA)

Non-Negative Situational Appraisal (P_SA)

Positive Appraisal Style Theory of Resilience (PASTOR)

Predictive Variable/Trait-Shame (X)

Resilience Scale (RS)

Sense of Social Support scale (SSS)

Test of Self-Conscious Affect (TOSCA)
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CHAPTER ONE: INTRODUCTION

Overview

In the current literature, psychological resilience is conceptualized as the process outcome of the complex interactions of multiple protective-factors and risk-factors which determine one’s overall level of psychological resilience (Chmitorz et al., 2018). While many of these factors have been identified as either protective or detractive, there are some irregularities in how some of these factors, such as shame and empathy, impact resilience (Leach, 2017; Regehr et al., 2002; see also Carlier et al., 2000; Fullerton et al., 1992; Haslam & Mallon, 2003). This research proposes that the irregularities are due to the complexity of the interactions between environmental and individual factors which may be better described by a nonlinear (i.e., a curved line) rather than a monotonic (i.e., straight line) model. The focus of this research was one of these seemingly irregular interactions involving shame, social support, situational appraisal style, and empathy. Specifically, the intent is to quantitatively identify the theorized patterns of conditional interactions through which empathy and appraisal style exert an influence on the relationship between shame, social support, and psychological resilience.

Background

As part of the growing interest in overall resilience in recent years, there has been an increasing research interest in psychological resilience. The past four decades of resilience research has yielded an evolving body of theoretical approaches describing this complex
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phenomena. Earlier theories focused on individual differences such as resilience traits (Hu et al., 2015; see also Block and Block, 1980; Ong et al., 2006) while subsequent theories widened the field to also include environmental and personal factors which could either support or detract from one’s psychological resilience (Dutton & Greene, 2010; see also Fletcher and Sarkar, 2013). This perspective was followed by the recognition that resilience is an ongoing process which progresses unevenly, and that resilience not only tends to be the default response to the experience of adversity (Masten, 2001), but that the development of resilience is thought to be inseparable from the experience of adversity which is thought to be its catalyst (Masten, 2001; see also Chmitorz et al., 2018; Jackson et al., 2007, Luthar et al., 2000). Current understanding of the nature of resilience classifies it more as an outcome of the interactions between risk factors and resilience factors which then result in more or less resilience in maintaining or regaining mental health after trauma or other adversity (Chmitorz et al., 2018; see also Bonanno and Diminich, 2013; Luthar et al., 2000).

While different researchers have developed distinct lists of supportive and detracting factors to resilience, there is significant overlap between these lists and the included constructs. This investigation will focus on four of these resilience factors; social support, shame, empathy, and situational appraisal style. Social support and shame have been strongly associated with resilience and have been found to have opposing influences on the resilience process (Masten, 2001, 2005; Dorahy et al., 2015; Karan, 2016; Kreis et al., 2016), while empathy and situational appraisal styles have been theorized to influence the impact of these constructs on resilience outcomes (Brown, 2006; Kalisch et al., 2015).

The supportive role of social connectedness and social support to psychological resilience has been firmly established in the literature (Bonanno et al., 2007; Brewin et al., 2000; Ledesma,
2014; Maddi et al., 2006; O’Leary, 1998; Richardson, 2002). Social support was found to be one of the foundational prerequisites for robust resilience by Masten (2001, 2005). She argued that due to the socially interactive nature of human development, the mechanism that is responsible for manifesting increased endurance and resilience in individuals is the context of social support, and that it is with the aid of this supportive contextual structure that resilience is naturally cultivated and tested as life trials unfold in the context of social support.

Shame was also found to be strongly associated with resilience outcomes and the detrating impact of shame on psychological resilience is equally well established in the literature (Dorahy et al., 2015; Karan, 2016; Kreis et al., 2016). Empathy’s role in resilience has been investigated by several researchers (Hall et al., 2018; Iacoboni, 2009; Sternthal et al., 2010) and consistent associations were found between empathy and wider social networks and more robust social support networks. Empathy has also been theorized to function as an antidote to shame (Brown, 2006) which may indirectly impact psychological resilience by decreasing shame and thereby decreasing the negative impact of shame on resilience.

More recently, Kalisch and colleagues (2015) put forward the Positive Appraisal Style Theory of Resilience model (PASTOR) which stipulates another shame-reducing mechanism in the form of non-negative situational appraisal style. Similarly to the theorized shame reducing impact of empathy (Brown, 2006), a non-negative situational appraisal style was theorized to decrease some of the debilitating outcomes associated with shame such as a sense of inescapable powerlessness to change the situation (Kalisch et al., 2015).

Despite the differences of opinion regarding the inclusions to the overall list of factors associated with resilience, social support (McKibbin et al., 2016) and shame (Kreis et al., 2016) have both been considered as primary actors in relation to resilience outcomes. Therefore,
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elements which exert influence over these key factors would likely have the potential to significantly influence resilience outcomes via their influence on these factors. Empathy and situational appraisal have been put forward as elements which may have the capacity to exert influence over shame and social support, (Brown, 2006; Kalisch et al., 2015) and are therefore potentially significant as indirect influencers of psychological resilience.

Researchers consider resilience as a dynamic process which can be influenced by the manipulation of the factors and have theorized that empathy may function as an antidote to shame (Brown, 2006). However, currently there is not sufficient evidence and information available to firmly establish the interaction between empathy and shame as they relate to psychological resilience. Based on Brown’s (2006) theory, empathy is expected to buffer or countermand the negative impact that shame has on resilience, while based on the Positive Appraisal Style Theory of Resilience model (PASTOR; Kalisch et al., 2015), it is expected that the degree of positivity or negativity in the appraisal of the situation is an influencing factor in determining whether shame would detract from psychological resilience or provide constructive outcomes.

Furthermore, it appears that there are inconsistencies in the way empathy and shame contribute to resilience outcomes. Under some circumstances, increased empathy can lead to higher rates of traumatization and thus to lower psychological resilience (Regehr et al., 2002; see also Carlier et al., 2000; Fullerton et al., 1992; Haslam & Mallon, 2003) which is contrary to empathy’s predicted contribution based on its supportive role toward social connectedness and social support (Brown 2006). Conversely, some forms of shame can lead to positive outcomes such as being better socialized and thereby developing more robust social networks leading to increased psychological resilience (Leach, 2017; see also De Hooge et al., 2010; Lickel et al.,
2014) which is not expected based on the debilitating and isolating outcomes associated with shame.

Given the pivotal roles of each of the above factors to resilience, a better-informed understanding of the interaction between trait-shame, perceived social support, empathy, situational appraisal, and their joint contribution to psychological resilience is needed. The current study aims to provide further insight into the interaction between trait-shame, empathy, perceived social support, and situational appraisal as these constructs relate to psychological resilience.

**Problem Statement**

The two distinct but converging problem areas found in the resilience research literature which motivated this research are; (1) the inconsistencies between predicted influences of empathy and shame on psychological resilience outcomes, and (2) the sparsity of quantitative research in the field of empathy and resilience conducted with samples representative of the general U.S. population.

Shame has been associated with increased vulnerability to substance abuse and social avoidance (Kreis et al., 2016), delayed disclosure of trauma, relational dysfunctions, and adult psychopathology (Dorahy et al., 2015), which establishes shame as a detractor to psychological resilience. Empathy is theorized to be the antidote to shame (Brown, 2006) which would indicate that increased empathy is linearly associated with resilience, on account of its impact on reducing the negative impact of shame. However, research indicates that under some circumstances, high levels of empathy can predispose individuals to suffering higher rates of traumatization as compared to those with more median levels of empathy with similar trauma exposures (Regehr et al., 2002; see also Carlier et al., 2000; Fullerton et al., 1992; Haslam &
Mallon, 2003). In these cases, high levels of empathy may lead to lower psychological resilience, which calls into question the previously theorized shape of the relationship between shame and empathy and psychological resilience. Along with the anomalies noted with Empathy’s impact on resilience there are also inconsistencies in how shame affects resilience. It was found that shame did not always lower resilience and in some cases shame led to increased resilience (Leach, 2017; see also De Hooge et al., 2010; Lickel et al., 2014). These inconsistencies indicate that there is a more complex relationship governing these constructs than previously indicated by existing literature.

Populations of interest in resilience studies frequently include highly selected groups such as veteran and military personnel, firefighters, medics, police officers, victims of violence, and disaster victims. While these populations may include a higher rate of extreme exposures to potentially traumatic experiences, which makes them an ideal population for PTSD studies, this population does not accurately represent the general population. Conducting studies with populations who have higher than average trauma exposure is vital to furthering research understanding of resilience and toward developing more effective treatment options for trauma sufferers, however, these efforts only partially address the day-to-day needs of the general population for developing more robust psychological and overall resilience under less extreme circumstances.

The problem is that the current descriptions of how shame and empathy influence resilience are not fully congruent with resilience outcomes which indicates that there may be more complex interactions in play between these constructs than previously described in relation to psychological resilience.
Purpose Statement

The current study aims to investigate the interrelated roles of trait-shame, perceived social support, empathy, and situational appraisal style in the context of their influence on psychological resilience, and will seek quantitative evidence of the conditional patterns of influence exerted by these constructs on psychological resilience. Specifically, the investigation seeks to quantify the moderating influence of empathy and situational appraisal style on the relationships between trait-shame, social support, and psychological resilience.

Significance of the Study

This study will contribute to the existing body of knowledge in the field of resilience by quantitatively testing the theorized impact of empathy (Brown, 2006) and non-negative situational appraisal style (Kalisch et al., 2015) as potential antidotes to or reducing factors of shame. Because psychological resilience is strongly associated with social support (Kelly et al., 2017) and shame has a negative impact on social connectedness and social support (Brown, 2006), a potential reduction in shame is expected to enhance psychological resilience. This study will add to current knowledge in the field of psychological resilience through two specific contributions;

First, empathy’s theorized antidotal relationship to shame (Brown, 2006) will be quantitatively examined in a larger sample representative of the general U.S. population. Brown (2006) found that increased empathy was consistently associated with a decreased sense of shame; however, these findings were from smaller-scale qualitative studies conducted with mostly female samples which were not representative of the wider U.S. population. The current study will use a more representative and larger sample of participants which is expected to yield more widely generalizable outcomes.
Second, this study will test the recently theorized moderating role of situational appraisal on the shame-resilience relationship (Kalisch et al., 2015). The influence of non-negative situational appraisal has been theorized to exert a reducing influence on shame; however, this theory has not yet been tested in larger samples (Kalisch et al., 2015). The current study will test the non-negative situational appraisal’s theorized reducing effect on shame with a larger sample, and will aim to contribute to the field with a quantitative analysis of the impact situational appraisal was found to have on shame, perceived social support, and psychological resilience. Given the close associations between shame proneness and lower resilience (Dorahy et al., 2015), investigating appraisal style and its effect on shame reduction is directly linked to increasing psychological resilience and is expected to contribute to present knowledge on the viability of this approach for shame reduction and consequent fostering of more robust psychological resilience.

The findings sought in this study represent potentially significant value through their specific contribution to research as well as through their broader philosophical contribution to the overall understanding of empathy’s role in resilience. This is particularly salient as modern western society continues to redefine itself at an ever-increasing pace, leaving individuals to grapple with the rapidly changing landscape of inconsistent messages about morality, ethics and about how to live a meaningful and fulfilling life. As the pace of societal change increases, the ability to develop robust psychological resilience seems to be an increasingly important skill in order to have the cognitive and emotional means to effectively pursue a fulfilling life.

One’s empathic capacity is directly relevant to his or her psychological resilience, ability to work and socialize with others, and ultimately to one’s quality of life (Isaacs et al., 2017; see also Hebert et al., 2008; Resnick & Rosenheck, 2008, Reyes, 2012). This research will contribute
to the current body of knowledge in the field of resilience through having provided quantitative data driven descriptions of the interactions between state-shame, perceived social support, resilience and the theorized moderating roles of empathy and situational appraisal on these relationships. A better understanding of how these constructs interact to influence psychological resilience will benefit future efforts to more effectively foster resilience in both clinical and social contexts.

**Research Questions**

**Research Question 1**

Does trait-shame directly, and indirectly through perceived social support, predict reported resilience?

**Research Question 2**

Does empathy moderate the relationship between trait-shame and perceived social support, perceived social support and resilience, and between trait-shame and resilience?

**Research Question 3**

Does situational appraisal style moderate the relationship between trait-shame and perceived social support, perceived social support and resilience, and between trait-shame and resilience?

**Definitions**

**Psychological Resilience**

Psychological resilience is conceptualized as the convergence of five key characteristics (Purpose, Equanimity, Self-Reliance, Perseverance, and Existential Aloneness) which account for the capacity of an individual to bounce back from adversity (Wagnild & Young, 1993).
Shame

Shame has been understood as a state of self-devaluation where the global self is found faulty and beyond redemption, resulting in a downward psychological spiral associated with dysfunctional patterns such as denial, social isolation, depression, and a reduction of psychological resilience (Brown, 2006).

Perceived Social Support

Perceived Social Support is conceptualized in this study as the combined sense of support from one’s family, circle of friends and other available sources as perceived by the responder (Dolbier & Steinhardt, 2000).

Empathy

Empathy is conceptualized as one’s inclination toward conceiving of the emotional state of others based on the combined influences of four key areas of empathy; (1) empathic concern – feeling emotional concern for others, (2) perspective taking – cognitive consideration of the other’s perspective, (3) fantasy – emotional identification with characters from books, films and stories, (4) personal distress – negative feelings in reaction to the distress of others (Davis, 1980).

Situational Appraisal Style

Situational Appraisal style refers to the tendency of an individual to evaluate a particular situation with more or less optimism / positivity or as a challenge rather than as an obstacle. The categories of interest are negative versus non-negative situational appraisals as this level of distinction has been tied to differential outcomes in previous research (Kalisch et. al., 2015).
Negative / Non-Negative Situational Appraisal

A negative situational appraisal denotes an evaluation in which the individual does not believe that the situation is repairable or improvable, whereas a non-negative situational appraisal refers to an evaluation in which the situation is perceived as potentially repairable or changeable (Kalisch et. al., 2015).

Summary

The focus of this research is the unique pattern of interactions involving shame, social support, situational appraisal style, and empathy. Specifically, the intent is to quantitatively identify the theorized patterns of conditional interactions through which empathy and appraisal style exert an influence on the relationship between shame, social support, and psychological resilience. The two distinct but converging problem areas found in the resilience research literature which motivated this research are; (1) the inconsistencies between predicted influences of empathy and shame on psychological resilience outcomes, and (2) the sparsity of quantitative research in the field of empathy and resilience conducted with samples representative of the general U.S. population.

The problem is that the current descriptions of how shame and empathy influence resilience are not fully congruent with resilience outcomes which indicates that there may be more complex interactions in play between these constructs than previously described in relation to psychological resilience. The current study aims to investigate the interrelated roles of trait-shame, perceived social support, empathy, and situational appraisal style in the context of their influence on psychological resilience, and will seek quantitative evidence of the theorized nonlinear pattern of influence exerted by these constructs on psychological resilience. Specifically, the investigation seeks to quantify the moderating influence of empathy and
situational appraisal style on the relationships between trait-shame, social support, and psychological resilience. The theorized antidotal relationship of empathy to shame (Brown, 2006) as well as the recently theorized moderating role of situational appraisal on the shame-resilience relationship (Kalisch et al., 2015) will be quantitatively examined in a larger sample representative of the general U.S. population.

One’s empathic capacity is directly relevant to his or her psychological resilience, ability to work and socialize with others, and ultimately to one’s quality of life (Isaacs et al., 2017; see also Hebert et al., 2008; Resnick & Rosenheck, 2008, Reyes, 2012). This research will contribute to the current body of knowledge in the field of resilience through having provided quantitative data-driven descriptions of the interactions between state-shame, perceived social support, resilience and the theorized moderating roles of empathy and situational appraisal on these relationships.
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CHAPTER TWO: LITERATURE REVIEW

Overview

In the current literature, psychological resilience is conceptualized as the process outcome of the complex interactions of multiple protective-factors and risk-factors which determine one’s overall level of psychological resilience (Chmitorz et al., 2018). While many of these protective and risk factors have been identified, there are some irregularities in their impact on psychological resilience (Leach, 2017; Regehr et al., 2002; see also Carlier et al., 2000; Fullerton et al., 1992; Haslam & Mallon, 2003). The focus of this research is one of these seemingly irregular interactions. Specifically, the intent is to identify and quantify suspected patterns of conditional interactions that empathy and appraisal style exert on the relationship between shame, social support, and psychological resilience.

The literature has firmly established the supportive role of social connectedness to psychological resilience (Ledesma, 2014; see also Bonanno et al., 2007; Brewin et al., 2000; Maddi et al., 2006; O’Leary, 1998; Richardson, 2002), and has also established a strong case for the supportive role played by empathy (Hall et al., 2018; see also Iacoboni, 2009; Sternthal et al., 2010) as well as the detracting impact of shame on psychological resilience (Dorahy et al., 2015; Karan, 2016; Kreis et al., 2016). However, it appears that under some circumstances, increased empathy can lead to higher rates of traumatization and thus to lower psychological resilience (Regehr et al., 2002; see also Carlier et al., 2000; Fullerton et al., 1992; Haslam & Mallon, 2003), and conversely some forms of shame can lead to positive outcomes such as being better socialized and thereby to increased psychological resilience (Leach, 2017; see also De Hooge et al., 2010; Lickel et al., 2014). Furthermore, recent efforts to find a more comprehensive theoretical model which is capable of accounting for the noted discrepancies has led to the
identification of another key mechanism operant in psychological resilience which influences the outcomes of both shame and guilt depending on the degree of dispositional positivity / negativity in situational appraisal (Kalisch, 2015).

Researchers consider resilience as a dynamic process which can be influenced by the manipulation of factors and have theorized that empathy may function as an antidote to shame (Brown, 2006). However, currently there is not sufficient evidence and information available to firmly establish the interaction between empathy and shame as they relate to psychological resilience. Based on Brown’s (2006) theory, the role of empathy is expected to buffer or countermand the negative impact that shame has on resilience, while based on the positive appraisal style theory of resilience model (Kalisch et al., 2015), it is expected that the degree of positivity / negativity in appraisal is the key factor in determining whether shame would detract from psychological resilience or provide constructive outcomes.

Given the pivotal roles of each of the above factors to resilience, a better-informed understanding of the interaction between shame, empathy, situational appraisal, and their joint contribution to psychological resilience is needed. The current study aims to provide further insight into the interaction between shame, empathy, and situational appraisal as these constructs relate to psychological resilience.

**Conceptual Framework**

Conceptually, the current study is based on the understanding of resilience provided through the protective factor model for resilience (O’Leary, 1998), the resilience cycle model (Patterson & Kelleher, 2005) the trajectory-based understanding of resilience (Galatzer-Levy &
Bryant, 2013; Insel et al., 2010), and the Positive appraisal style theory of resilience (PASTOR) (Kalisch et al., 2015).

The protective factor model of resilience, which evolved from developmental and systems theories, states that there is an interaction between protective factors which increase the probability of resilience and risk factors which decrease the likelihood of a resilient response and moderates the effects of exposure to stressors or trauma (O’Leary, 1998). A unique implication inherent in this theory recognizes the individual difference created by the personal combination of protective and risk factors which can potentially foster healthy personality characteristics despite unfavorable life circumstances (Bonanno, 2004; Ungar, 2004). Some of the protective factors identified in the protective factor model included skills for managing emotions, intrapersonal reflective skills, academic and job skills, ability to restore self-esteem, planning skills, life skills, and problem-solving skills (Ungar, 2004).

The resilience cycle theory (Patterson & Kelleher, 2005) further builds on the protective factor model and suggests that regardless of how resilient an individual may be, the process of working through a traumatic experience will result in an uneven progress characterized by moving back and forth through the different phases of recovery until the traumatic material is sufficiently processed. The four phases of the process are identified as the deteriorating phase, an adapting phase, a recovery phase, and a growing phase (Patterson & Kelleher, 2005).

According to this theory, one’s capacity for resilience determines the progress in the resilience cycle. If a person is unable to successfully adapt to their experience, they will regress to a dysfunctional level, while others with stronger resilience may adapt successfully but not fully recover and thus they will reach survival level and finally those with the most robust resilience will reach the recovery phase and return to their pre-incident level of functioning.
There is an even smaller group who will not only return to their original level of functioning but will actually surpass it and achieve a strengthened resilience level; they are the thrivers (Ledesma, 2014).

Given the process outcome nature of resilience, researchers (Galatzer-Levy & Bryant, 2013; Insel et al., 2010) have recognized the importance of moving beyond reliance on diagnostic categorization as the sole outcome-indicators in studying resilience, and advised the development of the trajectory-based understanding of resilience. This method of understanding and evaluating outcomes recognizes the cyclical and sometimes irregular paths of recovery put forth by the resilience cycle theory (Patterson & Kelleher, 2005) and provides analysis based on the understanding of how the most prevalent paths unfold over time (Galatzer-Levy et al., 2018). The acknowledgement of the uneven and often partially regressive process of resilience substantially changes the way in which resilience can be understood and evaluated, and suggests that short-term and formulaic approaches will be less likely to capture the long-term progress and personal nature of how resilience unfolds.

A review of the moderating factors operant in the differentiation of resilience trajectories suggests that psychological functions such as coping ability, attitudes, and personality, along with demographic characteristics and environmental factors underpin individual differences in resilience trajectories (Galatzer-Levy et al., 2018). Of particular interest to the present study is the recent research on optimism (Galatzer-Levy & Bonanno, 2014; see also Lam et al., 2010), neuroticism (Berntsen et al., 2012), perceived self-efficacy (deRoon-Cassini et al., 2010), and coping strategies and coping style (Bonanno et al., 2012). The results of these studies indicate that (1) individual characteristics related to emotional wellbeing and appraisal are predictive of resilience trajectory even in cases where the challenge was physiological, and (2) individual
characteristics and environmental conditions such as stressors which occur before or after the traumatic event may exert an impact on the trajectory of resilience that is greater than that of the central traumatic event. The latter of these assertions is a particularly salient part of the current understanding of how resilience emerges and how it can vary in its effectiveness among individuals who have experienced the same or similar circumstances. Of the many individual variances in resilience factors, the individual tendency for positive or negative situational appraisal is among the most powerful influences when it comes to psychological resilience.

Research in appraisal styles indicates that the way individuals conduct their evaluation of a situation has both a causal role in the generation of emotional responses to stressors and a mediating role on the effects of other known resilience factors. These were shown in previous studies to impact resilience trajectories potentially more significantly than the original trauma (Beck & Clark 1988; Clark & Beck 2010; Galatzer-Levy & Bonanno, 2014). On the basis of this connection, the PASTOR model posits that the key protective mechanism against the effects of stress is a non-negative appraisal style. This is determined based on individual tendencies favoring cognitive processes that shape appraisal which fall into three distinct categories: (1) positive situation classification, (2) reappraisal, and (3) interference inhibition (Kalisch et al., 2015). The PASTOR theory holds that individuals tend to interpret similar situations in similar ways and thus develop patterns or a style of situational evaluations which will show a tendency to be more or less negative (Kalisch et al., 2015).

Along the same lines, researchers have shown that even the degree to which shame and guilt may lead to constructive outcomes is largely influenced by the individual’s perceptions regarding the repairability of past failures (Leach, 2017; see also Leach & Cidam, 2015) which
may well be more a function of their personal pattern of appraisal style rather than a function of
the objective assessment of the given situation.

Shame has been understood as a state of self-devaluation where the global self is found
faulty and beyond redemption, resulting in a downward psychological spiral associated with
dysfunctional patterns such as denial, social isolation, depression, and a reduction of
psychological resilience (Brown, 2006; see also Dorahy et al., 2015; Karan, 2016; Kreis et al.,
2016). Conversely, empathy has been associated with social connectedness, reduced perceptions
of stress, and more positive patterns of situational appraisal, which contribute to increased
psychological resilience (Brown, 2006; see also Hall et al., 2018; Iacoboni, 2009; Sternthal et al.,
2010). Based on these associations, empathy has been theorized to function as an antidote to
shame (Brown, 2006). However more recent research found that shame as well as guilt may lead
to constructive outcomes in cases where the situation is appraised to be repairable (Kalisch et al.,
2015). These findings indicate that the functional mechanism leading to constructive outcomes
lies within the personal framework of situational appraisal as the key factor.

Based on these links between shame, empathy, situational appraisal styles and
psychological resilience, it appears feasible that empathy may function in the role of an antidote
to the dysfunctional outcomes of shame and guilt on account of empathy’s role in cultivating
improved perspective taking, emotional connectedness with others, and more positive personal
situational appraisal. Given the theorized central role of empathic capacity to psychological
resilience, the current study is aimed at investigating what relationship state-shame and state-
guilt have on psychological resilience when evaluated in concert with individual empathic
capacity and situational appraisal styles.
Researchers consider resilience as a dynamic process which can be influenced by the manipulation of the factors and have theorized that empathy may function as an antidote to shame. In smaller qualitative studies designed for female participants, researchers found that participants consistently identified the experience of empathy as the opposite to the experience of shame (Brown, 2006). However, currently there is not a sufficient body of quantitative evidence and information available to firmly establish the relationship of empathy and shame as they relate to psychological resilience. Given the pivotal roles of each of these attributes in resilience, a better-informed understanding of the interaction between shame, empathy, situational appraisal, and their joint contribution to psychological resilience is needed. The current study aims to provide further insight into the interaction between shame, empathy, and situational appraisal as these constructs relate to psychological resilience.

**Resilience**

**Defining Resilience**

According to Staudinger et al. (1995), the origins of resilience studies can be traced back to investigations of psychopathology, but over time resilience research has grown to become a field of enquiry of its own with a varied literature base which includes positive psychology, adult development, and stress and coping (Mlinac & Schwabenbauer, 2018). Despite the interchangeable use of the terms resilience and psychological resilience by some authors (Cooper et al., 2013), this study will observe the distinction outlined by IJntema et al. (2019) to differentiate between psychological resilience and general resilience due to the fact that psychological resilience does not include physical or physiological resilience although it may indirectly exert influence over it.
Unlike many other fields of enquiry, the literature on resilience as a whole has been criticized regarding its lack of a clearly agreed on definition (Aburn, et al., 2016; see also Allen et al., 2011). One of the primary points of contention involves inconsistencies between conceptualizing resilience as a dynamic process, as ego-resiliency, as a trait or as an individual characteristic (Luthar et al., 2000). In their critical evaluation of resilience research literature, Luthar et al. (2000) found that resilience is most commonly defined as a dynamic process of adaptation to adversity.

The specific definition of resilience changes from one field to another, but the core constructs seem to stay constant. From a psychiatric perspective, resilience has been conceptualized as the robustness of certain biological and psychological characteristics which are used for managing change (Flach, 1988, Ledesma, 2014). In developmental psychopathology the emphasis of resilience is one’s ability to maintain an internal integrated sense of self while coping with challenges (Garmezy & Masten, 1986); in human development the focus of resilience is “the dynamic process that leads to positive adaptation within the context of significant adversity” (Werner & Smith, 2001, p.3.), while in change management, resiliency is viewed as the combination of flexibility and strength used to minimize dysfunctional behavior during the change process (Conner, 1993).

The core concepts of resilience have been defined by Dutton and Greene (2010) as: (a) the presence of internal or external protective factors (and/or the absence of risk factors); (b) positive outcome (i.e., lack of psychopathology); and (c) a process of adaptation. Whereas Aburn et al., (2016) identified five key themes of resilience through their literature analysis; (a) rising above to overcome adversity; (b) adaptation and adjustment; (c) ‘ordinary magic’; (d) good mental health as a proxy for resilience; and (e) the ability to bounce back. These two lists of core
concepts provide an overview of the principal constituents of both the factor and process-based conceptualization of resilience.

Many definitions of resilience are centered on the idea of having the ability to bounce back or to withstand hardship through self-repair (Ledesma, 2014; Wolin & Wolin, 1993) which follows well from a linguistic perspective because the Latin root of resilience “resiliere” means to jump back (Aburn et al., 2016). It has been argued by some (Hegney et al., 2007; see also Easterbrooks et al., 2008; Montpetit et al., 2010) that true resilience is about the ability to adopt successfully to challenging or novel situations, whereas other definitions focus not only on maintaining basic function in the face of adversity but on one’s ability to maintain high levels of psychological functioning after encountering situations which are traumatic or highly stressful (Isaacs et al., 2017). Despite the differences in emphases and definitions between how specific researchers view psychological resilience, the overarching consensus seems to be that resilience is the capacity for weathering life-challenges, and that it is the outcome of multiple inter-related factors.

**Characteristics of Resilience**

The concept of resilience has undergone a significant shift over the past couple decades as it progressed from being understood as a stable individual trait in the beginning to being often considered as both a trait and a process (Montpetit et al., 2010) and finally to an outcome- or process-oriented approach which rejects the possibility of resilience being a stable trait (Chmitorz et al., 2018). Furthermore, given the change in how resilience is conceptualized, it is now accepted that resilience is a dynamic process of adaptation and that because of its malleable nature, resilience can be improved (Chmitorz et al., 2018; Masten, 2001).
The original conceptualization of resilience assumed that as a trait, it was largely the result of personality factors. The resilient personality profile was termed the “hardy personality” and it was thought to bolster individual capacity for coping with stress and adversity (Block and Block, 1980; Hu et al., 2015; Ong et al., 2006). Because traits tend to remain generally stable over time, the hardy personality was considered an innate and stable attribute (Chmitorz et al., 2018). However, the robustness of the empirical supportive evidence for the trait theory of resilience has been questioned by some researchers (Bonanno & Diminich, 2013; Chmitorz et al., 2018; Kalisch et al., 2017).

Current understanding of the nature of resilience classifies it more as an outcome of the interactions between risk factors and resilience factors which then result in more or less resilience in maintaining or regaining mental health after trauma or other adversity (Bonanno & Diminich, 2013; Chmitorz et al., 2018; Luthar et al., 2000). However, as resilience is considered an outcome variable, a person’s level of resilience can only be determined during or after exposure to some adversity (i.e., stress or trauma) and therefore the exposure to significant risk or adversity is considered a pre-requisite for resilience (Chmitorz et al., 2018; Jackson et al., 2007, Luthar et al., 2000, Masten, 2001). As an outcome variable, resilience is considered modifiable (Masten, 2001), and is determined by the interaction of resilience factors (Bonanno & Diminich, 2013).

**Resilience Factors**

Resilience factors serve to protect an individual from the stressful, traumatic or other negative experiences by modifying the stress response (Fletcher & Sarkar, 2013; Rutter, 1985). The factors associated with psychological resilience have been the focus of several cross-sectional studies which yielded a mostly overlapping set of factors (Bonanno et al., 2007; see
also Bonanno et al., 2011; Fredrickson et al., 2003; Friborg et al., 2005; Pietrzak & Cook, 2013; Southwick et al., 2011). These studies revealed that older age, male gender, Caucasian race and higher educational levels were somewhat associated with higher psychological resilience (Isaacs et al., 2017); however, these attributes are not likely causal but rather co-occurring characteristics and involve little or no choice on the part of the individual.

On the other hand, some resilience factors which suggest a more active individual choice such as social support, hardiness, religiousness, and spirituality have also been investigated (Maddi et al., 2006), and it was found that these qualities enhanced the ability of individuals to cope with adversity and life stresses, and offered some protection against depression (Milinac, 2018).

While there is some contention among researchers on the number of specific factors which can be considered as supportive factors for psychological resilience, there seems to be an agreement that they fall into two major distinct groups; these groups have been termed internal variables and external variables. Self-factors, personality factors, or individual resources such as hardiness, coping ability, a sense of coherence, cognitive resources, threat appraisal, and self-efficacy would be considered internal variables (O’Leary, 1998; Ledesma, 2014). External variables, on the other hand, would include factors which have influence over an individual’s ability to remain resilient, and include relationships and connectedness as the most consistent and central resilience factors. (Beardslee, 1989; Ledesma, 2014; Masten, 2005; O’Leary, 1998).
Resilience as the Default Reaction

While much of trauma research has been focused on psychopathology and other negative outcomes of trauma exposure, resilience research with its focus on post trauma recovery has claimed an increasing portion of the trauma literature in both military and civilian populations (Elliott et al., 2015; see also Nievergelt et al., 2015; Isaacs et al., 2017). Studies indicate that in most cases the normative response to trauma unfold with an initial period of psychological difficulty after which the traumatic event and the processing of trauma occurs spontaneously (Bonanno & Mancini, 2012; Orcutt et al., 2014). Further support was found for the default nature of resilience by a recent study using a nationally representative sample of U.S. military veterans who, despite having been exposed to a high number of traumatic events over their lifetime, were found to be quite resilient based on 67.7% of the sample reporting minimal or no current psychological distress (Isaacs et al., 2017). These figures echoed earlier research findings from the resilience literature (Bonanno et al., 2007; see also Bonanno & Mancini, 2012; Orcutt et al., 2014; Pietrzak et al., 2014; Pietrzak et al., 2012), and support the assertion that resilience is the most common reaction to trauma exposure.

Ann Masten (2001) wrote about the phenomenon that the majority of people tend to exhibit resilience as a response to trauma. She termed it “ordinary magic” and argued that rather than some extraordinary feat, resilient response was the expected majority response from healthy groups, and that it was grounded in ordinary aspects of life such as friendships, family, and love (Masten, 2001). She also posited that being resilient was strongly underpinned by the personal strength garnered from previous experiences of having received support from friends and family during hardships or difficult situations (Aburn et al., 2016; see also Masten, 2001).
Masten’s (2001) concept of resilience is based on the understanding that due to the socially interactive nature of human development, the mechanism that is responsible for manifesting the “ordinary magic” of increased endurance and resilience is the context of social support, and that it is via this supportive structure that resilience is naturally cultivated and tested through the experience of multiple life-trials as they unfold in the context of social support. However, current social trends of decreased face-to-face interactions indicate a decrease in social connectedness which was found by Masten (2001) to provide the general context for social interactions, thus calling into question whether the natural cultivation of resilience will be able to continue in spite of major changes in how we relate socially (Konrath, 2013). Social disconnection is a significant and increasing concern in the context of developing empathy (Konrath, 2013) and given the interrelated roles of empathy, social connectedness and psychological resilience, a decline in social connectedness or empathic capacity may significantly impact overall psychological resilience.

**Social Support**

**Social Support as a Factor of Resilience**

Social support has been identified as one of the most significant resilience factors (Bonnano et al., 2007; Brewin et al., 2000; Richardson, 2002); however, the construct of social support is the product of complex interactions involving other factors such as personality traits, attachment styles, empathic capacity (Isaacs et al., 2017) as well as shame proneness (O'Leary et al., 2019). While social support has generally been correlated with psychological resilience (Hildon et al., 2010), other research suggested that different types of social support mechanisms may vary in their influence over resilience (Mlinac & Schwabenbauer, 2018). For example, the
impact of emotional support differs from that of instrumental support in that the former can exert a larger influence on one’s perceived quality of life (Netuveli & Blane 2008).

A systemic research review conducted by Kelly and colleagues (2017), confirmed the overall consistency across research findings regarding the positive impact of social support toward overall cognitive functioning and resilience. These findings were not only consistent across time and across multiple studies, but were also consistent with a solid theoretical foundation (Kelly et al., 2017). Based on the review of research literature regarding the role of social support in general cognitive, psychological, and functional wellbeing, several theoretical assertions were found to have provided support for the argument that social support is one of the key factors of psychological resilience.

As a first consideration for psychological resilience, social engagement along with cognitive stimulation have been established as significant contributing factors to the development and maintenance of overall cognitive reserve (Scarmeas & Stern, 2003). Cognitive reserve has been shown to enhance one’s capacity for developing alternative strategies using alternate neural networks, and it has also been associated with the ability of certain individuals to maintain unaltered levels of functioning even in cases where physiological deterioration was evident (Stern, 2002; see also Steffener & Stern, 2012). These findings demonstrate the feasibility that psychological resilience may be enhanced through increasing cognitive reserve which in turn may mitigate some pathology related cognitive difficulties (Stern, 2002; see also Steffener & Stern, 2012).

As a second consideration for psychological resilience, social support was found to have a positive effect on cognitive outcomes as a result of its buffering effect on stress (Cohen & Wills, 1985). This buffering effect was found to reduce stress in two ways. The primary path of
stress reduction was found to be the knowledge that others will help share the burden of a given difficulty, and this knowledge reframed the individual share of the potential impact of the situation and reduced the extent to which a situation was judged stressful. The second path was through a direct reduction or elimination of the perception of stress which provided some measure of insular protection against the physiological stress process (Cohen & Wills, 1985).

As a third consideration for psychological resilience, according to the Social Control Hypothesis (Hirschi, 1969; see also Umberson, 1987), close social ties enhance the likelihood of individuals practicing health behaviors which are conducive to enhanced cognitive functioning. While Hirschi’s theory (1969) is predominantly relied upon to underpin explanations of the development of criminal behavior through the fragmentation and absence of social ties which allow the individual to disregard the social guidelines for behavior, in the current context, the theory aids in the illustration of how close familial and social ties enhance socially desirable healthy behaviors which are expected to have positive outcomes on overall cognitive and emotional wellbeing.

A fourth theory put forth by Adolphs (2003), suggests that social connectedness and the capacity for conceptualizing the perspectives of other people (theory of mind) are inherently linked concepts which exert a circular influence on each other. The more socially connected someone is the more social support they may receive, but also the more social support they must provide, which requires having an accurate enough theory of mind that the others feel understood. These concepts have been shown to stem from one’s attempts to understand others through mental simulation and imitation using a particular subset of neural circuits known as mirror neurons. Adolphs’ (2003) theory further asserts that since we gain insight into others’ perspective with the aid of our simulation and imitation capabilities, these abilities are also used
to gain an understanding of the self through the simulation of an external perspective of the self as seen from the point of view of the others in a social context.

In general, researchers found that wider social networks as well as family networks were important predictors of resilience (McKibbin et al., 2016) and that strong social support not only benefited individual cognitive responding but also increased the positive appraisal of self and others (Nurius et al., 2015). Social support has repeatedly emerged in the research literature as one of the most significant factors of resilience (Bonnano et al., 2007; see also Brewin et al., 2000; Richardson, 2002). However, the nature and quality of measured benefit varied significantly depending on the type of social support and other factors such as personality traits, attachment styles, empathic capacity as well as trait-shame and guilt proneness. (Isaacs et al., 2017).

**Types of Social Support**

The definitions of social support vary from one source to another, but the general consensus is that social support is a behavior that assists someone in achieving a desired goal (Duncan et al., 2005). In the context of psychological resilience, several types of social support have been considered instrumental in both developing and in maintaining psychological resilience.

During early childhood, the initial sources of social support come from the caretakers. In this stage, the child’s emotional regulation is dependent on the caretakers and it is during this time that individual attachment styles are developed in response to the availability and quality of emotional and physical support. Although the family remains a key source of social and emotional support for children and adolescents throughout their development, during later development as children become more socially interactive with peers, peer group acceptance and
peer support become increasingly important to psychological resilience (Duncan et al., 2005).

The forms of social support provided by families of children and adolescents typically include several different types of support (Hombrados-Mendieta, et al., 2012). Some of these include informational support such as talking and teaching about how to handle situations, emotional support which entails creating a feeling of acceptance, and instrumental support which involves tangible assistance such as transportation, financial assistance or other specific problem-solving assistance (Hombrados-Mendieta, et al., 2012; see also Procidano & Heller, 1983). Optimally, as children become adults, the path of supportive actions becomes increasingly bidirectional and a resultant boost to psychological resilience may follow from the recognition that one is now able to not only receive help but also provide it to others.

**Attachment Style and Social Support**

Attachment Theory was originally developed and proposed by Bowlby (1973) to explain the relationship between internal and external developmental factors which account for individual styles of attachment. According to this theory, individual attachment styles largely govern how individuals approach social interactions throughout their lives. Bowlby found that subjects most often fell within one of four basic categories or attachment styles: Secure Attachment, Anxious-Avoidant, Anxious-Ambivalent, and Disorganized. These tendencies emerge during the early years of development based on the quality and frequency of attention children received from their primary caregiver and become more stable traits of interaction through puberty and young adulthood.

Because attachment styles were found to have a significant role in personal interactions, researchers also suspected that these traits may have an influence over how individuals seek out, accept, or offer social support. In a recent study, Carr and Wilder (2016) found that there was an
attachment style correlated difference in how likely people were to seek social support. As compared with other attachment styles, people with secure attachment styles were more likely to seek support outside family and close relationships, which also corresponded with having both more high-quality relationships as well as having more relationships overall (Carr & Wilder, 2016). Conversely, those with avoidant attachment styles perceived more risk in seeking support from friends or others outside their families and reported having less relationships overall (Carr & Wilder, 2016).

**Stress and Seeking Social Support**

In addition to the perceived risk associated with seeking social support, support seeking behaviors were also influenced by the level of perceived stress or perceived need for help (Collins et al., 2004). Research findings over the last decade indicate that there is a strong relationship between attachment styles and stress (Craft et al., 2008; see also Gormley & Lopez, 2010; Neff, Karney, 2009). In the context of how perceived stress influences help seeking, the difference in the level of help-seeking behavior can be attributed to the perception of a lower level of stress associated with a given situation and therefore less need for help. In the case of social interactions, the initial expectations entering into a given situation tended to have a significant impact on the outcome appraisal of the event, and the effect of appraisal style may have an impact on the perceived level of stress associated with a given scenario. Research has indicated that people with secure attachment tended to have a more optimistic assessment of situations as compared to those with less secure attachment types (Khodarahimi et al., 2016). Additionally, Mikulincer and Shaver (2007) found that those with high levels of secure attachment tended to score higher on measures of prosocial behaviors, trust, intimacy, and
relationship satisfaction. These findings would indicate that attachment style is one of the key factors impacting the likelihood of seeking social support.

**Other Aspects of Social Support Seeking**

While individual attachment style is a significant factor in how and from whom support may be sought, both support seeking and support giving behaviors are also significantly influenced by one’s empathic stance toward others (Collins et al., 2004). In addition to internal factors such as empathic stance and attachment styles, more functional aspects of social connections such as the structure and maintenance of social ties as well as gender differences were also found to have significant influence on supportive and support seeking behaviors (Psylla et al., 2017). In a study that examined male and female tendencies regarding verbal communication and networking, it was found that women spoke longer on the phone and had more central positions in social networks than men (Psylla et al., 2017). There were also significant gender differences found in how social networks are structured; women tended to have a significantly higher number of contacts than men in phone and internet-based networks; however, the person-to-person network sizes were similar across genders. Social networks were found to be not only linked to personal psychological resilience, but also served a foundational role in helping communities recover from and rebuild after a disaster (Wilkin et al., 2019).

**Maximizing the Benefits of Social Support**

Researchers found that while social participation and social support promoted resilience (Netuveli and Blane 2008), the lack of social support during and after a traumatic experience had a somewhat stronger influence on outcomes than pre-trauma conditions (Brewin et al., 2000). These findings indicate that the benefits of social support and social connectedness may best be realized when individuals participate in well-established social support systems before, during
and after potentially traumatic experiences. In other words, the full benefit of social connectedness is more likely to be manifest among those who actively engage in social connectedness throughout their lives.

Empathy

In western cultures the concepts of empathy and sympathy are highly emotionally charged terms which seem, at least to some degree, to represent society’s requirements for an individual’s capacity and willingness to engage with others emotionally. It also seems somewhat incongruent that, in our increasingly personally distant, highly individualistic, and professionally specialized culture, the ideals of personhood are so closely tied to the interpersonal skills embodied in the concepts of empathy and sympathy. Nevertheless, in cases where these skills are deficient, such as among those higher on the autism spectrum, the benefits of social connectedness are less prevalent (León, 2019). A further complication in discussing empathy is that despite the inherently recognized social value associated with empathy and sympathy, the popular concepts and definitions of these constructs remain somewhat ambiguous.

Empathy and Sympathy

Empathy and sympathy are often used as overlapping concepts to refer to an understanding and emotional connection with another. However, these two concepts are distinct and blurring the distinction between them can cause us to not recognize important motivational complexities and perhaps even lead to our failure to learn to empathize (Chismar, 1988). Empathy refers to the act of perceiving or imagining what another person might feel and then experiencing feelings of a similar sort (Lux, 2017; see also Chismar, 1988). On the other hand, sympathy implies that in addition to empathizing there is a concern or a positive regard toward the other (Lux, 2017; see also Chismar, 1988). In other words, empathy is the experience of the
perceived feelings of another without any attachment whereas sympathy is inclusive of that with the added feature of a benevolent attitude toward the other. While there is a subtle distinction which explains the frequency and ease of confusion about these concepts, the distinction between the terms is significant in that they represent different psychological mechanisms (Lux, 2017).

Dispositional empathy or trait empathy refers to one’s proclivity to imagine the feelings and experiences of others, in contrast to situational or state-empathy which is a more immediate momentary reaction to a specific event (Konrath, 2013). For a more specific breakdown, trait-empathy can be further divided into a cognitive aspect such as perspective taking, and a more affective component such as empathic concern which can then be classified based on whether it is more oriented toward the self or others (Konrath, 2013; see also Davis, 1983).

**Mechanism of Empathy**

The psychological mechanism responsible for empathy is a cognitive-affective imaginary process whereas the process of sympathy involves an instinctive affective state related to social situations (Lux, 2017). The implication of the difference in mechanisms is that because empathy is a cognitively derived affective state, its initiation and continuation is more under voluntary control than that of sympathy which is an affectively based response.

The capacity for empathy is thought to have evolved as the result of our natural tendency to mimic one another (Iacoboni, 2009). The automatic response of mirror neurons are believed to be the initial source of the internal sense of an observed behavior, and the imitation or simulation of another person’s mental state produces empathy (Goldman, 2006; see also Goldman & Sripada, 2005). The imitation of the mental states of those in one’s group can increase connectedness, facilitate social interactions as well as increase mutual concern and care for one another (Iacoboni, 2009). Social connectedness appears to be a significant component to the
development of empathic capacity as well as to overall emotional wellbeing (Konrath, 2013; see also Law et al., 2004).

**Social Disconnection**

Because of the interdependent nature of social engagement, empathic capacity, and overall resilience, a marked decrease in social interactions would lessen the naturally available opportunities for developing empathic and social skills and could negatively impact general resilience. Social disconnection is a significant and increasing concern in the context of developing empathy (Konrath, 2013). Based on the review of relevant research over the last three decades, Konrath (2013) found that there is a pronounced pattern of increasing social disconnection and a degradation in moral reasoning among college students. When presented with tests with moral dilemmas which required that some moral code be broken, such as the Defining Issues Test (Rest, 1979), students from more recent years were increasingly more likely to answer based on personal interests and avoidance of punishment as compared with students from earlier decades (Thoma & Bebeau, 2008). Additionally, declining social participation in both formal organizational contexts as well as in informal social gatherings has been reported by researchers (Putnam, 2000).

The concern brought on by social disconnection which is evidenced by the declining moral reasoning, is that as students become less socially connected, they would have even less need and opportunity to develop and use empathic abilities, and instead will be more likely to become increasingly self-focused. While empathic development is not restricted to the developmental years, the patterns of behaviors and social interactions practiced in early adulthood set the trajectory for later social interactions and provide a foundation for the place of the self within a social context.
Increasing Empathy

Past research has identified several key components for developing and strengthening one’s empathic ability. These included role and perspective taking (Duan et al., 2002), active learning activities such as experiential exercises and self-assessment (Bodenhorn & Starkey, 2005), engaging in debates, discussions, and storytelling (Braun et al., 2005). Most methods for increasing empathic ability tend to focus on developing or finetuning one’s perspective taking skills as well as on establishing the habit of using these perceptive skills in interpersonal encounters. Perspective taking involves an attempt to see or understand a situation from the perspective of the other, actions which may feel counterintuitive during arguments and other situations where we seek to be understood. Nevertheless, one’s cognitive ability to anticipate the reaction and behavior of others, which is an essential element of successful interpersonal relationships, is the result of effective perspective taking (Davis, 1983) and it is associated with an increase in other-oriented as opposed to egocentric behaviors (Feddes et al., 2015; Lamm et al., 2007).

Well-defined methods for increasing empathy are often found in highly specialized research environments which offer carefully calculated experiences for the participants, but more organic instances of exchanges which foster empathic development are ubiquitous in social situations that occur naturally through spontaneous interaction among people. For example; significant increases in empathy were found among a group of direct care workers of geriatric patients after participation in a series of informal group sessions which allowed the workers to share their personal accounts and challenges related to caring for their patients. The process of sharing and hearing others in the group allowed the participants to examine their own feelings about the care situations as well as about how their clients may feel about those same situations.
which helped workers make meaning of their work experiences (Braun et al., 2005). In general, the effectiveness of empathy training sessions was found to strongly depend on the inclusion of experiential components which had some emotional anchor for the participants, whereas empathic development appeared to be less impacted by cognitive approaches alone (Kramer et al., 1989). This offers further support for the importance of taking part in naturally occurring social opportunities which allow one to both provide and receive social support in an emotionally meaningful context.

Increasing one’s capacity for empathy has been shown to lower rates of depression (Sternthal et al., 2010; see also Wright et al., 2017), and lower rates of suicidality (Hall et al., 2018). Higher empathic capacity was also found to be associated with higher levels of forgiveness and self-forgiveness which have been identified as some of the more significant predictive factors of greater well-being and better overall health which are direct correlates of resilience (Davis et al., 2015).

Forgiveness

Forgiveness in general has been conceptualized as a process with several stages (Baskin & Enright, 2004; see also Wade & Worthington, 2005) as well as a decision model with a single session deconstruction of the positive implications of forgiveness to the client (Baskin & Enright, 2004; see also DiBlasio, 1998; McCullough & Worthington, 1995). However, in a meta-analysis on forgiveness research by Baskin and Enright (2004), it was found that interventions based on the decision models were less effective in eliciting forgiveness than those based on process models (Lundahl et al., 2008).

Enright and Fitzgibbons’ process model of forgiveness (Enright & Fitzgibbons, 2000) outlines a four-phase process for forgiveness which includes the uncovering phase, decision
phase, work phase and the outcome phase, while other models such as the “REACH” model (Wade & Worthington, 2005), include five stages (a) recalling the offence; (b) building empathy for the offender; (c) offering an altruistic gift of empathy to the offender; (d) committing to forgive; (e) holding on to forgiveness. Still, in other process models, such as the model put forth by Luskin (2001), which has often been used in the context of cognitive and behavioral therapeutic interventions, there are six steps outlined to achieve forgiveness, and in yet another model for forgiveness, a model pioneered by DiBlasio and Benda (2002), which is based on Christian principles, there are 13 stages.

While it may appear as though these theories indicate a somewhat conflicted understanding of how forgiveness unfolds, the common theme that emerges is that both process and decision models aim to foster clients to engage in the consideration of forgiveness and its potential personal benefits, as well as in the development of an empathic view of the offender which helps develop perspective taking skills (Lundahl et al., 2008). The act of conceptualizing the perspective of another person and of using empathy to experientially explore that alternative perspective is where forgiveness, empathy, and resilience seem to intersect and reveal how closely interdependent these processes are.

**Self-Forgiveness**

Although in most cases the concept of forgiveness is understood to take place between individuals as a means to get past interpersonal transgressions, there is increasing empirical evidence which support the concept of self-forgiveness where the person is both the grantor and the object of forgiveness (Scherer et al., 2011; see also Thompson et al., 2005; Worthington et al., 2006). Self-forgiveness involves the pursuit and willingness to release oneself from the guilt and self-blame stemming from past transgressions, and instead, nurture benevolent and
compassionate attitudes toward the self (Ingersoll-Dayton & Krause, 2005). Proclivity toward self-forgiveness has been associated with several positive outcomes such as reduced rate of depression and increased rate of life satisfaction (Thompson et al., 2005), a reduction in confusion and feelings of guilt in geriatric populations (Ingersoll-Dayton & Krause, 2005), and a better developed capacity for repairing one’s own emotions was found to be a significant predictive factor in how well one is able to engage in conceptualizing others’ perspectives (Hodgson & Wertheim, 2007). Forgiveness as well as self-forgiveness appears to involve four distinct processes; (a) defining and confronting the emotions left by a negative or hurtful experience, (b) working through them, and in time, (c) exchanging the negative emotions toward the transgressor, or in the case of self-forgiveness one’s self, and finally (d) moving toward adopting more positive or neutral emotions (Hodgson & Wertheim, 2007; see also Malcolm et al., 2005).

Because perceived transgressions, whether real or imagined, elicit emotional responses which trigger the stress response, one’s stress exposure from social encounters is significantly influenced by how effectively one is able to process the negative feelings (Mlinac & Schwabenbauer, 2018). Studies have shown that more effective emotional-management skills were associated with better adaptability to stressors and transgressions (Mayer et al., 2004), and those with better skills in these areas were not only more cooperative and demonstrated better social skills (Schutte et al., 2001), but were also able to resolve interpersonal problems more effectively (Bar-On et al., 2003; see also Hodgson & Wertheim, 2007; Rahim & Psenicka, 2002). In contrast, difficulty with emotional management was found to be associated with finding interactions with others difficult (Law et al., 2004). In summary, empathic capacity is strongly associated with one’s proclivity for both self-forgiveness and forgiveness of others (Worthington
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et al., 2006), which has been shown to be one of the more robust predictors of both social connectedness and psychological resilience (Schutte, 2001; see also Bar-On et al., 2003; Hodgson & Wertheim, 2007; Rahim & Psenicka, 2002).

Empathy as a Factor of Resilience

In the resilience literature, empathy is often examined alongside altruism (Isaacs et al., 2017; see also Staub & Vollhardt, 2008) and is included as one of the resilience supporting factors on account of the relationship between positive psychological states to general health benefits, increased social connectedness, and reduced susceptibility to substance dependence (Hebert et al., 2008, see also Resnick & Rosenheck, 2008, Reyes, 2012). Empathy’s relationship to resiliency is established not only through the indirect health benefits just mentioned but also through the more direct and active role empathic responses play in the unfolding of stress responses (Mlinac & Schwabenbauer, 2018). Researchers found that employing positive emotions such as empathy during times of heightened stress and amidst crisis situations yielded diminished stress response and more effective coping (Davis et al., 2007). Furthermore, it has been suggested by Mlinac and Schwabenbauer (2018) that experiencing empathy and other positive emotions may provide some measure of ego protection.

Shame and Guilt

Shame and guilt are closely related and significantly overlapping yet subtly distinct concepts which are often and easily confused (Tangney et al., 2007). While both trait and state shame describe a negative self-concept / self-worth, feelings of guilt center around specific actions or experiences rather than an overarching self-concept. The process model of self-conscious emotions (Tracy & Robbins, 2004) established that the characteristic difference between guilt and shame was that guilt referred to internal, specific but unstable attributions,
whereas the characteristics associated with shame included internal, global and stable attributions (Lindsay-Hartz, 1984; see also Tracy & Robins, 2006; Tangney et al., 1996). In other words, guilt and shame were both internal, but guilt referred to emotions related to specific events whose impact was more likely to change over time, whereas in the case of shame the attribution was to the global self and tended to remain more stable over time.

In addition, Tangney and Dearing (2002) suggested that guilt and shame also differ in how attention is focused. Shame, being internally focused on the unworthiness of the self, can lead to a preoccupation with the self while neglecting empathic concern for others (Tangney & Dearing, 2002). Guilt on the other hand is focused on the problems or harm caused to others and this outward focus can lead to a more empathic mindset (Tangney & Dearing, 2002). Moreover, other researchers also found evidence in support of the relationship between guilt and increased empathy (Joireman, 2004) as well as between guilt and an increased ability for perspective-taking (Joireman, 2004; see also Leith & Baumeister, 1998).

Other important differences between shame and guilt include their associations with other emotions such as anger, disgust, remorse and anxiety. The association between shame and anger has been documented in several studies (Bear et al., 2009; see also Bennett, Sullivan, & Lewis, 2005; Harper & Arias, 2004; Paulhus et al., 2004), and seems to stem from the attempts of those experiencing shame to try to cope by relieving some of the associated dissonance through blame shifting and finding others responsible for their state which then leads to anger (Lewis, 1971; see also Tangney et al., 1992). Power and Dalgleish (1997) found that there was also a close association between shame and disgust. One explanation offered for this relationship is based on interpreting shame as the rejection of the faulty self and paralleling disgust as the rejection of flawed objects (Power & Dalgleish, 1997). In contrast, guilt was found to be
associated with remorse (Lindsay-Hartz, 1984; see also Tangney & Dearing, 2002), and while both shame and guilt were found to be related with anxiety (Tangney et al., 1992), some research indicated that the association was stronger between shame and anxiety than between guilt and anxiety (Beck et al., see also 1985; Gilbert, 1998).

Shame and guilt also seem to differ on the neurobiological level. Distinct activation patterns in the brain were associated with the experience of guilt and shame – shame showed patterns in the frontal lobe while guilt was associated with activity in the amygdala and insula (Michael et al., 2014). Available evidence also suggests that shame and guilt are associated with different immunological outcomes; higher elevations of proinflammatory cytokine activity was found in subjects in shame states (which are related to physical posturing) as compared to guilt states (Dickerson et al., 2004) and increases in shame were linked with cortisol level increases (indicating elevated stress(Gruenewald et al., 2004). Researchers also noted distinct action tendencies for shame and guilt; the experience of shame was associated with a desire to hide, escape or disappear, and the experience of guilt induced a desire to undo harm or make repairs (Tangney, 1992; see also Tangney et al., 1996). Interestingly, the vicarious experience of shame and guilt also produced similar behavioral desires (Lickel et al., 2005).

As with many affective applications, there are significant gender differences in how shame and guilt are processed. Generally, females and younger individuals were found to have a higher prevalence of anxiety, which was closely linked with shame and guilt (Michael et al., 2007). When examining self-forgiveness, women were found to engage in a more active processing of emotions than men (Carpenter et al., 2019), and this processing difference was found to be a factor contributing to elevated shame and elevated reparative guilt among women as compared to men. In contrast, men were found to process emotions more passively with
generally lower shame and guilt (Carpenter et al., 2019). However, a meta-analysis found that shame proneness in general was more strongly associated with symptoms of anxiety as compared with guilt proneness which showed only small associations with anxiety regardless of gender (Cândea & Szentagotai-Tătar, 2018).

Shame and Guilt as Factors of Resilience

Shame and guilt are both conceptualized to exist in two distinct forms; state-shame/state-guilt and trait-shame/trait-guilt. The delineation between state and trait is based on the stability of the experience. State refers to the less stable, more momentary reactive subtype, which usually surfaces in reaction to some situation but is not necessarily representative of the overall personality (Turner, 2014). Trait on the other hand refers to tendencies which are more stable and act as more of a defining characteristic of the core being (Turner, 2014). Therefore, the trait characteristics are thought to change less over time and are more closely linked with resilience outcomes.

The experience of shame has been described by researchers as an intense psychological pain related to feeling inadequate and unworthy of acceptance from others (Brown, 2006). It has been theorized that the feeling of shame is more painful than that of guilt because the devaluation extends to the entire or global self (Tangney & Dearing, 2002). Feelings of unworthiness and inadequacy are paralleled by feelings of powerlessness, isolation, incompetence, entrapment, and feelings of being unlovable (Karan, 2016). Higher levels of shame have been associated with an increased vulnerability to substance abuse and social avoidance (Kreis et al., 2016), delayed disclosure of trauma, relational dysfunctions, and adult psychopathology (Dorahy et al., 2015).

Conversely, lower levels of shame, along with parental warmth and empathy were found to be predictive factors for interpersonal forgiveness and self-forgiveness (Wright et al., 2017),
which has been closely linked with psychological resilience on account of its direct physiological impact on the individual as well as through the indirect effect provided by the way of improved social connections. Strong correlations were also found between self-forgiveness and state guilt and state shame, which indicated that there was a stronger predictive relationship between shame and depressive symptoms than between guilt and depressive symptoms (Kim et al., 2011).

Furthermore, empirical evidence indicates a close relationship between guilt and increased empathy (Joireman, 2004) as well as between guilt and an increased ability for perspective-taking (Joireman, 2004; see also Leith & Baumeister, 1998), which are both indicators for increased resilience.

A New Perspective of Shame and Guilt

The close relationship between shame and guilt has been the interest of a host of studies (Lindsay-Hartz, 1984; Tangney et al., 2002; Tangney et al., 2007; Tracy et al., 2004) and until recently, the dominant view held that these two concepts were categorically different based on their impact on the subject’s perception of the global self. The established perspective holds that guilt is a sense of one’s own shortcoming regarding a specific event or behavior whereas shame is a more stable emotion regarding one’s own level of worth (Tangney et al., 2013). In this view the differentiation between shame and guilt is due to the focus of what is unacceptable – in the case of guilt the focus is on a particular action which leaves some or most of the global self-perception unaffected by the judgement, where as in the case of shame the entire global self is judged to be unacceptable. Therefore, based on this view, feelings of guilt may help steer the individual toward correcting or improving the part of the self that is perceived to be insufficient, and thereby may have some beneficial impact on the individual. However, in the case of shame, where the whole being is seen as unacceptable, correction is unlikely due to the debilitating
impact of the realization that the whole self is unacceptable, and thus, avoidant behaviors and outright denial are some of the most often employed coping mechanisms which have not been associated with any long-term positive outcomes.

However, recent studies (Cândea & Szentagotai-Tătar, 2018; see also Leach, 2017) found evidence which supports the idea that the governing factor in whether either guilt or shame can be beneficial is linked to the perception of the subject regarding how repairable a given situation may be. The main implication of this theory is that the individual’s personal assessment of the degree to which a given problematic situation is repairable is what becomes the chief influencing factor associated with the choice of withdrawal or repair attempts rather than, as previously thought, the difference between the inward focused feelings of shame or the outward focused feelings of guilt. This pattern of interaction has found support in other studies as well. For example, Lickel and colleagues (2014) found that motivation for self-change was more closely linked with shame than guilt, and that shame led to withdrawal only in circumstances where the restoration of one’s self view was either deemed impossible or posed too much risk (De Hooge et al., 2010).

**Potential Benefits of Shame**

Self-forgiveness has been closely associated with both empathy and psychological resilience (Pandey et al., 2020) and shame and guilt seem to be more or less equally related to the emotional and cognitive patterns associated with self-forgiveness (Leach, 2017). In a systematic review of research, Gausel and Leach (2011) noted that several studies found positive associations between empathizing with others and shame and guilt. These associations were not significantly different for shame and for guilt which brings into question the notion that shame predictably leads to negative outcomes while guilt may contribute positively. Furthermore,
increased pro-social orientation was found to be associated with both shame and guilt, but more robustly with shame (Cohen et al., 2011). Researchers have also shown that both present time and recalled episodes of shame could serve as a catalyst for improved cooperative behavior (de Hooge et al., 2008), and an increased desire for self-improvement (de Hooge et al., 2010; see also Lickel et al., 2014), which further highlights the dissonance in the fixed conceptualization of shame as an exclusively negative state in the context of resilience.

An integrative model by Leach and Cidam (2015) explained the mechanism of how the experience of shame can lead to beneficial outcomes. In this model, Leach and Cidam (2015) proposed that the determining factor in whether or not the shame experience evokes constructive outcomes is directly linked to the individual’s perception of how repairable or overcomeable the situation is and whether the failure can be improved given sufficient effort (Leach & Cidam, 2015). In essence, the personal beliefs held about whether the self was alterable and whether the situation was repairable were the key elements that determined the outcome of shameful experiences. The belief that change was possible rendered the self-criticism of the global self (shame) or partial self (guilt) more manageable and thus more likely to foster beneficial outcomes (Leach, 2017). On the other hand, the experience of shame was found to be more debilitating in cases where the situation was judged to be unlikely to improve, and these cases were linked to the profound sense of inferiority commonly associated with the experience of shame (Leach, 2017).

**Positive Appraisal Style Theory of Resilience (PASTOR)**

**Origins of PASTOR**
The idea that individual differences in situational appraisal may have an impact on the outcome and experience of shame is not new. In fact, this line of thought has been pursued for close to three decades (Ferguson, 2007; see also Ferguson & Stegge, 1995; Gausel & Leach, 2011; Leach, 2017) and its theoretical origins can be traced even further to appraisal theory which posits that emotional reactions are not merely an outcome of a predetermined stimulus-response association but rather they are the outcomes of a context-dependent evaluation (Frijda 1986, see also 1993; Lazarus, 1993; Lazarus & Folkman 1984). Despite the academic community’s acceptance of appraisal theory, the prevailing understanding of shame and guilt, which was based on the categorical differences between these two constructs, relegated the inquiry about situational appraisal being a potential mechanism for outcomes of shame to a secondary status. However, more recently conducted meta-analytic surveys of existing literature (Cândea & Szentagotai-Tătar, 2018; Kim et al., 2011; Leach & Cidam, 2015) found that the categorical nature of differentiating between shame and guilt were not as firmly linked to predictable outcomes as previously thought, and that a more accurate model of shame may require the integration of appraisal theory. This alternative line of thinking gained even more ground with the introduction of the Positive Appraisal Style Theory of Resilience (PASTOR) (Kalisch et al., 2015) and the Dynamic Network Approach (Kalisch et al., 2019) which offers a theoretical network-based model for mental disorders as well as resilience.

**PASTOR and Resilience**

The Positive Appraisal Style Theory of Resilience (PASTOR) (Kalisch et al., 2015), proposed that while resilience is the function of the interaction of many factors, these factors converge their influences on mechanisms of resilience which in turn determine the individual level of resilience. Furthermore, Kalisch and colleagues (2015) proposed that the single main
mechanism of resilience may be the individual appraisal style. While there is a well-established relationship linking appraisal style to variable outcomes of shame (Ferguson, 2007; see also Ferguson & Stegge, 1995; Gausel & Leach, 2011; Leach, 2017), and to differentiated levels of stress perception (Olff et al., 2005; Yih et al., 2019), PASTOR’s claim for the primacy of appraisal style among resilience mechanisms has yet to be empirically supported and has been challenged by several researchers (Beer & Flagan, 2015; Carver & Scheier, 2015). Nevertheless, this theoretical framework offers an example of a more sophisticated organization for the ever-growing list of factors associated with resilience. Unlike in many previous frameworks, the factors are organized into tiers which distinguish between factors and mechanisms of resilience. In this structure, factors are passive conditions with smaller individual impacts which may diminish, cancel out, or amplify the impact of other factors through mediation and moderation. Mechanisms on the other hand are active processes, such as the cognitive process, and are resource dependent in that certain conditions must exist in order for the process to take place. If the necessary conditions are not in place for a given mechanism then the mechanism never becomes a player in the overall unfolding of the process except through the absence of its influence. If, however, the necessary conditions for a given mechanisms are set up through the factors, the mechanisms can then act out its role in actively influencing the overall outcome either directly or as a moderator to other mechanisms. In other words, each of the mechanisms is acted on by a combination of multiple factors and in turn each mechanism exerts an influence on the overall outcome of resilience. The multi-tiered organization of this theoretical structure enables a more representative conceptualization of the multi-factor interactions which simultaneously occur at different levels and ultimately result in a given level of resilience. As
Empathy and situational appraisal as moderators

such, it constitutes a potentially central part of this study’s inquiry into the specific interaction between shame and resilience in the context of empathy and varying appraisal tendencies.

Summary

Resilience is understood to be a process characterized by a trajectory which is the outcome of the interactions of internal and external protective and risk factors (Chmitorz et al., 2018). It is further theorized that the choice of negative or non-negative style of personal situational evaluation has a significant role in overall psychological resilience which in many cases exceeds the impact of the actual trauma on the eventual outcome trajectory (Chmitorz et al., 2018; Also see Kalisch et al., 2015; Mancini & Bonanno, 2009; Norris et al., 2009; Sapienza and Masten, 2011; Windle, 2011). Moreover, the literature has firmly established the supportive role of social connectedness to psychological resilience (Bonanno et al., 2007; see also Brewin et al., 2000; Ledesma, 2014; Maddi et al., 2006; O’Leary, 1998; Richardson, 2002), and has also established a strong case for the supportive role played by empathy (Hall et al., 2018; see also Iacoboni, 2009; Sterntthal et al., 2010) and the detracting impact of shame on psychological resilience (Dorahy et al., 2015; see also Karan, 2016; Kreis et al., 2016). However, there are inconsistencies in the way empathy and shame influence psychological resilience which were unexpected based on a linear understanding of interactions between these constructs (Leach, 2017; see also Regehr et al., 2002; See also Carlier et al., 2000; Fullerton et al., 1992; Haslam & Mallon, 2003). Under some circumstances, increased empathy can lead to higher rates of traumatization and thus to lower psychological resilience (Regehr et al., 2002; see also Carlier et al., 2000; Fullerton et al., 1992; Haslam & Mallon, 2003) which is contrary to empathy’s predicted contribution based on its supportive role toward social connectedness and social support (Brown 2006). Conversely, some forms of shame can lead to positive outcomes such as
being better socialized and thereby developing more robust social networks leading to increased psychological resilience (Leach, 2017; see also De Hooge et al., 2010; Lickel et al., 2014) which is not expected based on the debilitating and isolating outcomes associated with shame. These instances provide evidence for the conditional nature of interactions between resilience factors and present a case for the possibility that other factors or mechanisms may play a significant role in how empathy and shame interact.

Researchers consider resilience as a dynamic process which can be influenced by the manipulation of the factors and have theorized that empathy, as one of these factors, may function as an antidote to shame (Brown, 2006). However, currently there is not sufficient evidence and information available to firmly establish the interaction between empathy and shame as they relate to psychological resilience. Given the pivotal roles of each of the above factors to resilience, a better-informed understanding of the interaction between shame and empathy and their joint contribution to psychological resilience is needed.

Although the theorized relationship of empathy as an antidote to shame has been supported by small scale quantitative studies in female populations (Brown, 2006), this study will seek quantitative confirmation of the proposed counterbalancing nature of the empathy–shame relationship in a larger and more varied gender balanced sample as well as further insight into the roles and interactions between shame, empathy, and situational appraisal as these constructs relate to psychological resilience.
CHAPTER THREE: METHOD

Overview

This chapter focuses on the methods chosen to investigate the relationship between state-shame, perceived social support, empathy, and situational appraisal style as they relate to psychological resilience. While shame has been theorized to impact psychological resilience consistently negatively, and empathy to have the converse influence, resiliency outcomes appear to reflect a more complex set of interactions between these constructs. The current research explored the conditional relationships theorized to exist between trait-shame, social support, empathy, and situational appraisal style and the combined influence of these constructs on psychological resilience. Specifically, the investigation seeks to quantify the moderating influence of empathy and situational appraisal style on the relationship between trait-shame, social support, and psychological resilience. (Figure 1)

Figure 1, Full moderated mediation model.
Although it could be argued that externally established patterns of social support, in the context of attachment formation during early development, precede the formation of trait-shame, in the current study the temporal precedence of trait-shame to social support is assumed based on the influence of trait-shame on social seeking behaviors, social participation, and overall social connectedness (Karan, 2016). In this view, trait-shame acts a precursor to social connectedness through internal factors which influence one’s likelihood of establishing and maintaining social connectedness as an adult, and thereby directly impacting an individual’s level of involvement in receiving and providing social support.

Based on previous findings which link shame to debilitating outcomes accompanied by reduced resiliency such as depression and suicide (Sekowski et al., 2020), anxiety and obsessive compulsive disorder (Szentágotai-Tátar et al., 2020), posttraumatic stress disorder (López-Castro et al., 2019), addictions (Luoma et al., 2017), eating disorders (Cesare et al., 2016), and violent behavior (Gottzén, 2016; see also Scheff, 2003), this study assumes the existence of a direct relationship between trait-shame and psychological resilience as well as the existence of an indirect relationship between these constructs mediated by social support on account of shame’s association with social isolation which prevents individuals from accessing the benefits of social support (Williamson et al., 2007). The measurements of these relationships in this study are intended to replicate previous findings and confirm these established relationships in the present sample. The specific interest of this study is to examine the moderating influence of empathy and situational appraisal style on the relationships between trait-shame perceived social support and psychological resilience.

While researchers consider resilience to be a dynamic process which can be influenced by the manipulation of its factors, due to the cross-sectional design of this survey-based study,
the direct manipulation of factors is not feasible. However, it is expected that the hypothesized patterns of interaction between the variables will be confirmed by the data, which will indicate the relational, although not necessarily causal, interactions between empathy, situational appraisal style, trait-shame and social support as they relate to psychological resilience.

**Research Questions and Hypotheses**

**Research Question 1**

Does trait-shame directly, and indirectly through perceived social support, predict reported resilience?

*Hypothesis 1a*

Trait-shame will be negatively correlated with perceived social support.

*Null Hypothesis.* No significant correlation will be found between trait-shame and perceived social support.

*Hypothesis 1b*

 Trait-shame will be negatively correlated with resilience.

*Null Hypothesis.* No significant negative correlation will be found between trait-shame and resilience.

*Hypothesis 1c*

Perceived social support will be positively correlated with resilience.

*Null Hypothesis.* No significant positive correlation will be found between perceived social support and resilience.

**Research Question 2**

Does empathy moderate the relationship between trait-shame and perceived social support, perceived social support and resilience, and between trait-shame and resilience?
Hypothesis 2a

Empathy will have a significant moderating role on the relationship between trait-shame and perceived social support.

Null Hypothesis. Empathy has no significant moderating role on the relationship between trait-shame and perceived social support.

Hypothesis 2b

Empathy will have a significant moderating role on the relationship between perceived social support and psychological resilience.

Null Hypothesis. Empathy has no significant moderating role on the relationship between perceived social support and psychological resilience.

Hypothesis 2c

Empathy will have a significant moderating role on the relationship between trait-shame and psychological resilience.

Null Hypothesis. Empathy has no significant moderating role on the relationship between trait-shame and psychological resilience.

Research Question 3

Does situational appraisal style moderate the relationship between trait-shame and perceived social support, perceived social support and resilience, and between trait-shame and resilience?

Hypothesis 3.1a

Increased proclivity to employing cognitive emotional management skills associated with non-negative situational appraisal will moderate the relationship between trait-shame and
perceived social support, and will be positively correlated with higher levels of perceived social support.

**Null Hypothesis.** Situational appraisal style does not have a moderating role on the relationship between trait-shame and perceived social support, and there will be no correlation between the tendency to use cognitive emotional management skills associated with non-negative appraisal styles and the level of perceived social support.

**Hypothesis 3.1b**

Less frequent use of cognitive emotional management skills associated with negative situational appraisal will moderate the relationship between trait-shame and perceived social support, and will be positively correlated with higher levels of perceived social support.

**Null Hypothesis.** Situational appraisal style does not have a moderating role on the relationship between trait-shame and perceived social support, and there will be no correlation between the tendency to use cognitive emotional management skills associated with negative situational appraisal styles and the level of perceived social support.

**Hypothesis 3.2a**

Increased proclivity to employing cognitive emotional management skills associated with non-negative situational appraisal will moderate the relationship between perceived social support and psychological resilience, and will be positively correlated with higher levels of psychological resilience.

**Null Hypothesis.** Situational appraisal style does not have a moderating role on the relationship between perceived social support and psychological resilience and there will be no correlation between the tendency to use cognitive emotional management skills associated with non-negative situational appraisal styles and the level of psychological resilience.
Hypothesis 3.2b

Less frequent use of cognitive emotional management skills associated with negative situational appraisal will moderate the relationship between perceived social support and psychological resilience, and will be positively correlated with higher levels of psychological resilience.

Null Hypothesis. Situational appraisal style does not have a moderating role on the relationship between perceived social support and psychological resilience and there will be no correlation between the tendency to use cognitive emotional management skills associated with negative appraisal styles and the level of psychological resilience.

Hypothesis 3.3a

Increased proclivity to employ cognitive emotional management skills associated with non-negative situational appraisal will moderate the relationship between trait-shame and psychological resilience, and will be positively correlated with higher levels of psychological resilience.

Null Hypothesis. Situational appraisal style does not have a moderating role on the relationship between trait-shame and psychological resilience and there will be no correlation between the tendency to use cognitive emotional management skills associated with non-negative situational appraisal styles and the level of psychological resilience.

Hypothesis 3.3b

Less frequent use of cognitive emotional management skills associated with negative situational appraisal will moderate the relationship between trait-shame and psychological resilience, and will be positively correlated with higher levels of psychological resilience.
**Null Hypothesis.** Situational appraisal style does not have a moderating role on the relationship between trait-shame and psychological resilience and there will be no correlation between the tendency to use cognitive emotional management skills associated with negative situational appraisal styles and the level of psychological resilience.

**Design**

The study was a cross sectional survey design which is aimed at quantifying the mediating influence of empathy and situational appraisal style on the direct relationship between trait-shame and resilience, on the relationship between trait-shame and perceived social support, and on the relationship between social support and psychological resilience, using a regression-based PROCESS analysis (model #76) (Hayes, 2017, p 606). The data was examined using the Pearson’s correlation analysis to test the degree to which each of the components in the model are correlated with one another. Following the correlation analysis, three derivatives of the full model (Figure 1) were tested using the Hayes conditional process analysis; a simple mediation model (Model 1) and two moderated mediation models (Model 2 and 3).

Figure 1, Full moderated mediation model.
Participants

Sample and Recruitment

The study utilized a target convenience sample of 500 adult responders recruited through the online crowdsourcing application Mechanical Turk, owned and managed by Amazon. While crowdsourcing is mostly associated with hiring contractors for microprojects which require human decision capability and are not currently within the capabilities of computers, researchers have also found this platform useful for survey based social science experiments and have used this method of data gathering in hundreds of published papers (Chandler & Shapiro, 2016). Although research samples obtained through Mechanical Turk do not provide an exact representation of the general U.S. population, samples were found to not be significantly different from traditionally obtained samples in most characteristics (Casey et al., 2017). Some tendencies noted in samples collected before 2013 included a somewhat overrepresented younger white female demographic; however, samples since 2013 have yielded more accurate gender representative results (Levay et al., 2016).

Inclusion and Exclusion Criteria

Only adult participants over the age of 18 and who are residents of the United States and are able to read English were included in this study. Surveys with incomplete portions which would interfere with the scoring of a measure, and surveys which have a pattern of more than 10 repeated answers in a row were excluded from the study.

Variables

The current study aimed to investigate the interrelated roles of trait-shame, social support, empathy, and situational appraisal style as well as their combined influence on psychological resilience. The investigational approach was to explore the conditional
relationships theorized to exist between trait-shame, social support, empathy, and situational appraisal style and the combined influence of these constructs on psychological resilience. Specifically, the investigation sought to quantify the moderating influence of empathy and situational appraisal style on the relationship between trait-shame, social support, and psychological resilience.

**Predictive Variable**

Trait-Shame (X). The tendency of participants toward guilt or shame was measured using the Test of Self-Conscious Affect (TOSCA) version 3 (Tangney et al., 1989). The TOSCA provides measurements of the constructs of shame, guilt, externalization, detachment, alpha pride (pride in self) and beta pride (pride in behavior). See a more detailed explanation of TOSCA under the instrumentation section.

**Dependent Variable**

The outcome variable in the study is resilience (Y). It was conceptualized as the convergence of five key characteristics (Purpose, Equanimity, Self-Reliance, Perseverance, and Existential Aloneness) which account for the capacity of an individual to bounce back from adversity. This construct was measured using the Resilience Scale (RS) (Wagnild & Young, 1993).

**Covariate 1 (Mediator)**

Social Support (M₁) is conceptualized in this study as the combined sense of support from one’s family, circle of friends and other available sources as perceived by the responder. This construct was measured using the Sense of Social Support (SSS) (Dolbier & Steinhardt, 2000).
Covariate 2 (Moderator 1)

Empathy (W) is conceptualized as one’s inclination toward conceiving of the emotional trait of others based on the combined influences of four key areas of empathy; (a) empathic concern - feeling emotional concern for others; (b) perspective taking - cognitive consideration of the other’s perspective; (c) fantasy - emotional identification with characters from books, films and stories; and (d) personal distress - negative feelings in reaction to the distress of others. This construct was measured using the Interpersonal Reactivity Index (IRI) (Davis, 1980).

Covariate 3 (Moderator 2)

Situational Appraisal style (Z) refers to the tendency of an individual to evaluate a particular situation with more or less optimism/positivity or as a challenge rather than an obstacle. The categories of interest are negative versus non-negative situational appraisals as this level of distinction has been tied to differential outcomes in previous research (Kalisch et. al., 2015). A negative situational appraisal denotes an evaluation in which the individual does not believe that the situation is repairable or improvable, whereas a non-negative situational appraisal refers to an evaluation in which the situation is perceived as potentially repairable or changeable.

Situational appraisal style is a composite construct which is the product of multiple simpler and more accurately measurable basic constructs (Kalisch et. al., 2015), and measuring situational appraisal tendencies can be undertaken with instruments which measure the constituents of this construct. These include cognitive behavioral tendencies such as reappraisal and positive refocusing, (Garnefski & Kraaij 2006; see also Gross & John 2003) and the degree to which individuals engage in cognitive patterns with potentially negative impact such as catastrophizing, rumination, and blaming others (Garnefski & Kraaij 2006; see also Reiss et al.)
For the measurement of situational appraisal, this study used the Cognitive Emotional Regulation Questionnaire (short version) (CERQ-short) (Garnefski & Kraaij, 2006). The nine independently validated subscales which comprise the CERQ were dichotomized based on their association with negative or non-negative styles of situational appraisal and positive or negative correlation with depressive symptoms.

**Instrumentation**

Data was gathered using previously validated self-report scales for each of the constructs in the study: psychological resilience, social support, empathy, trait-shame, and situational appraisal style.

**Resilience Scale**

The Resilience Scale (RS) (Wagnild & Young, 1993) is a 25-item scale developed to measure resilience as a combination of personal strengths and positive adaptation to stress. The RS measures resilience based on the characteristics which were found by the authors to serve as the five core characteristics of resilience: Purpose, Equanimity, Self-Reliance, Perseverance, and Existential Aloneness. Participants are asked to rate each of the 25 statements as they would apply to them using a 7-point scale (1 = strongly disagree; 7 = strongly agree), with a possible score range of 25 to 175 with higher scores indicating higher resilience. The statements are all positively worded and describe a personal characteristic which indicates resilience. Some examples of the statements include statement #9; “I feel that I can handle many things at a time”, statement #13; “I can get through difficult times because I have experienced difficulties before”, and statement #20; “Sometimes I make myself do things whether I want to or not”. The internal consistency reliability coefficient reported by the authors for the initial sample was .89
(Wagnild & Young, 1993) and the measure has since been widely used with a variety of ages including teens and young adults (Santos et al., 2013).

**Sense of Social Support (SSS)**

The SSS is a 21 item self-report scale developed to assess an individual’s personal sense of social support in their lives. The scale yields a single score between 0 and 63 representing the global view of the responders social environment with higher scores indicating higher perceived levels of social support. Results from the SSS showed strong correlation with results of the Social Provisions Scale (Cutrona & Russell, 1987) and the Interpersonal Support Evaluation List (Cohen & Hoberman, 1983) which offer support for the concurrent validity of the SSS. Construct validity for the SSS was supported by negative correlations to avoidance-coping and stress along with positive correlations to approach-coping and hardiness (Dolbier & Steinhardt, 2000). Internal consistency for the SSS was reported at .86 and the stability at a two-week retest interval had a reliability coefficient of .91 (Corcoran & Fischer, 2013, p 755). The scale includes statements such as 

- #10 “I have friends from work that I see socially (e.g., movie, dinner, sports, etc.)”,
- #13 “I make an effort to keep in touch with friends” and
- #20 “I wish I had more people in my life that enjoy the same interests and activities as I do”. Respondents are asked to choose how truly each of the 21 statements apply to them using a four-point scale (0 = Not at all true, 1 = A little true, 2 = Somewhat true, and 3 = Completely true).

**Interpersonal Reactivity Index**

The Interpersonal Reactivity Index (IRI) (Davis, 1980) is one of the most used scales for determining empathic tendencies (Pulos et al., 2004). The instrument consists of 28 items divided into four scales which independently measure the four key areas of empathy; (1) empathic concern – feeling emotional concern for others, (2) perspective taking – cognitive
consideration of the other’s perspective, (3) fantasy – emotional identification with characters from books, films and stories, (4) personal distress – negative feelings in reaction to the distress of others. For each of the 28 items, the respondents are asked to select from a range of five answers (A,B,C,D,E) ranging from “Does not describe me at all” (A) to “This describes me very well”(E). The IRI showed moderate to high consistency over time with a test-retest reliability of the subscales over a 60-75-day period ranged from .61 to .79 for males, and from .62 to .81 for females. The authors reported the following individual reliability figures for each of the four subscales scales in the instrument;

For the empathic concern subscale, the standardized alpha coefficients were .68 for males and .73 for females. An example of a statement designed to measure empathic concern is statement #9; “When I see someone being taken advantage of, I feel kind of protective towards them”. The standardized alpha coefficients for the perspective taking subscale were .71 for males and .75 for females and an example measuring this subscale is the statement #8; “I try to look at everybody’s side of a disagreement before I make a decision.” The subscale measuring fantasy, or emotional identification with fictional others, showed a standardized alpha coefficient of .78 for males and .79 for females. An example of a statement evaluating this subscale is #12; “Becoming extremely involved in a good book or movie is somewhat rare for me.” The final subscale is the personal distress subscale which had a standardized alpha coefficient of .77 for males and .75 for females. An example of a statement used in this subscale is #6; “In emergency situations, I feel apprehensive and ill-at-ease.”

**Test of Self-Conscious Affect (TOSCA)**

The TOSCA (Tangney et al., 1989) Version 3 (TOSCA–3) is the latest version of the TOSCA. It is a scenario-based measure which includes 11 negative and five positive scenarios
assessing the participants’ imagined reactions to hypothetical events. The instrument is comprised of 16 items which are answered on a 1-5 scale and yield measurements of the constructs of shame, guilt, externalization, detachment, alpha pride (pride in self) and beta pride (pride in behavior). TOSCA’s reliability was tested, using an undergraduate sample, and the Cronbach's alpha for the Shame scale was .76, and for the Guilt scale it was .66 (Tangney, 1989).

The instrument is comprised of 16 scenarios and each of the scenarios is followed by descriptions of several possible reactions to that scenario. Responders are asked to indicate how well each of the described reactions match their own potential response to the hypothetical scenario using a five-point Likert scale ranging from “not likely”(1) through “very likely”(5). An example of this format is question #1 from the TOSCA version 3 shortened 11 question assessment; The scenario states “You make plans to meet a friend for lunch. At five o’clock, you realize you have stood your friend up.” The responder is given three possible ways to respond to this scenario; (A) “You would think “I’m inconsiderate” ”, (B) “You would think you should make it up to your friend as soon as possible.”, or (C) “You would think “My boss distracted me just before lunch.” ” After each of the listed responses the responder is asked to mark how likely it is that they would respond in the described manner on a scale where 1 stands for not likely and 5 stands for very likely.

*Cognitive Emotional Regulation Questionnaire (short version) (CERQ-short)*

The Cognitive Emotional Regulation Questionnaire (short version) (CERQ-short) (Garnefski & Kraaij, 2006) was derived from the original 36 item CERQ (Garnefski et al., 2002), which was developed in 1999 as an instrument for measuring the cognitive emotion regulation strategies employed during stressful life events and other potentially threatening experiences (Garnefski et al., 2001). This instrument was chosen as one of the measures for situational
appraisal style based on two of its characteristics; (1) each of the individually validated subscales can yield specific results, which makes the instrument highly adaptable, and (2) there is a very close alignment between the measured constructs of its nine subscales and the theorized constructs which comprise situational appraisal style (Kalisch et al., 2015). Because situational appraisal style is conceptualized as composite construct (Kalisch et al., 2015), measuring situational appraisal tendencies can be undertaken with instruments which measure the constituents of this construct (Kalisch et al., 2015). These include cognitive behavioral tendencies such as reappraisal and positive refocusing, (Garnefski & Kraaij 2006; see also Gross & John 2003) and the degree to which individuals engage in cognitive patterns with potentially negative impact such as catastrophizing, rumination, and blaming others (Garnefski & Kraaij 2006; see also Reiss et al. 1986; Sullivan et al. 1995).

The CERQ-short is an 18 item self-report questionnaire derived from the original 36 item full version (Garnefski et al., 2001). The short version retained the nine conceptually distinct subscales measuring (a) Self-blame; (b) Other blame; (c) Rumination; (d) Catastrophizing; (e) Putting into Perspective; (f) Positive Refocusing; (g) Positive Reappraisal; (h) Acceptance; and (i) Planning. However, the short version retained only two items for each scale instead of the original four. While significantly reducing the length of the questionnaire, the CERQ-short showed marginal or no decrease in reliability as compared to the original 36 item instrument (Garnefski & Kraaij, 2006).

The instrument utilizes a five-point Likert scale which ranges from 1(almost never) to 5(almost always), and is scored by summing the Likert point values (1-5) for each subscale, which gives a possible range of 2-10 for each of the nine scales. Higher subscale totals indicate a more prevalent use pattern for a given cognitive approach. The reliability of each subscale expressed
as Cronbach’s alpha coefficients was measured as follows; Self-blame .68, Acceptance .73, Rumination .79, Positive refocusing .80, Refocus on planning .79, Positive reappraisal .81, Putting into perspective .79, Catastrophizing .81, Other-blame .77 (Garnefski & Kraaij, 2006).

To quantify situational appraisal style, the nine subscales were grouped based on their positive or negative correlation with depressive symptoms and association with negative or non-negative styles of situational appraisal. More frequent use of Positive refocusing, Refocus on planning, Positive reappraisal, and Putting into perspective were negatively correlated with symptoms of depression and refer to cognitive emotional management strategies associated with non-negative situational appraisal. Conversely, Catastrophizing, Blaming others, Blaming self, Rumination, and Acceptance, were positively correlated with symptoms of depression and refer to cognitive emotional management strategies associated with negative situational appraisal.

**Procedures**

**Data Collection**

Data was gathered by a survey consisting of the previously outlined scales for resilience, empathy, situational appraisal style, social support, shame, and guilt. A convenience sample of 500 adult responders was recruited through the online crowdsourcing application Mechanical Turk, which is an online crowdsourcing application owned and managed by Amazon. While crowdsourcing is mostly associated with hiring contractors for microprojects which require human decision capability and are not currently within the capabilities of computers, researchers have also found this platform useful for survey based social science experiments and have used this method of data gathering in hundreds of published papers (Chandler & Shapiro, 2016). Although research samples obtained through Mechanical Turk do not provide an exact representation of the general U.S. population, the samples were found to not be significantly
different from traditionally obtained samples in most characteristics (Casey et al., 2017). Some tendencies noted in samples collected before 2013 included a somewhat overrepresented younger white female demographic; however, samples since 2013 have yielded more accurate gender representative results (Levay et al., 2016).

Survey Design

The survey included the measures for each of the constructs and requested basic demographic information such as gender, ethnicity, age, annual income range, and achieved education level and relationship status which was collected for validating the sample’s distribution. Additionally the Adverse Childhood Experience (ACE) scale was also included to provide further data on the level of traumatic exposure in the sample. The survey consisted of a total of 120 items of which 103 were part of the measures used in the models, 10 items were part of the ACE scale and 7 were demographic questions (see appendix). The scales consist of several statements which require a selection from a Likert scale indicating how applicable a given statement is to the individual. The Test of Self-Conscious Affect (TOSCA) Version 3 (Tangney et al., 1989) includes 16 items measured on a five-point scale, the Interpersonal Reactivity Index (Davis, 1980) consists of 28 items measured on a five-point Likert scale, the Sense of Social Support scale (Dolbier & Steinhardt, 2000) has 21 items and uses a four-point Likert scale and the Resilience Scale (RS) (Wagnild & Young, 1993) is a 25-item scale and it is rated on a seven-point Likert scale, the Cognitive Emotional Regulation Questionnaire (short version) (CERQ-short) (Garnefski et al., 2001) is an 18 item questionnaire using a five-point Likert scale.

Ethical Considerations

The study was designed in accordance with the ethical guidelines of the American Counseling Association (ACA) for human subjects studies (ACA, 2014). As part of the ACA
stipulations for ethical research, a comprehensive review of the study proposal was sought during the proposal process, and the study was conducted only after IRB approval was granted. Confidentiality was maintained through anonymous data collection facilitated by a feature of the survey platform. No personal information was collected in any part of the data collection process which could identify any participant individually. Each participant was informed of the study purpose and format before agreeing to participate. Participants were asked to read and acknowledge the IRB approved informed consent form which was included as a prerequisite to starting the survey, thereby allowing unhindered withdrawal while ensuring that 100% participants were informed prior to consenting to participate.

Data Analysis

The study examined the mediating and moderating relationships using a regression-based PROCESS analysis using model #76 (Hayes, 2017, p 606). The direct relationship between shame/guilt and resilience, and the social support mediated relationship between these two constructs was examined in the condition where the moderating effects of empathy and situational appraisal were considered alongside these variables. Initially, the data was examined using the Pearson’s correlation analysis to assess the degree to which each of the components in the model were correlated with one another. Following the correlation analysis, three models were tested using the Hayes conditional process analysis which was expected to yield specific quantitative results describing the effect each variable had on the others. The analysis examined direct effects (the effect of X on Y), indirect effects $X \rightarrow M \rightarrow Y$ which is the amount of mediation, and the total effect in the simple mediation model (Model 1) which was the sum of the direct effect of X on Y and indirect effect of X on Y through M. Two moderated mediation models (Models 2 and 3) were tested to examine whether the relationships comprising the
previously tested model were moderated by empathy and situational appraisal style (negative and non-negative).

Validity

Based on Shadish et al.’s (2002) recommendations for examining a given research design for validity concerns, the current design was examined for potential categories of confounds which may raise validity concerns in the areas of internal validity, construct validity, and external validity.

Internal Validity

Due to the cross-sectional design of this survey study, there are some internal validity concerns that emerge. First, because direct manipulation of factors is not feasible in a single survey design, the assumption of temporal precedence cannot be verified. While this study assumes the temporal precedence of trait-shame to social support based on the influence of trait-shame on social seeking behaviors, social participation, and overall social connectedness (Karan, 2016), definitive data to support the position that it was in fact that way in the sample of interest could not be gathered given the study’s cross-sectional design. Therefore, the temporal precedence of factors will be assumed with the acknowledgement that it was not specifically established in the sample population. Second, this study has a low level of protection against the possibility of unknown confounding variables and resultant rival explanations. However, it is expected that reliable patterns of interaction between the variables will become evident given an adequate sample size which would indicate the relational, although not necessarily causal, interactions between empathy, shame, guilt, and social support as they relate to psychological resilience.
Construct Validity

Construct validity addresses the degree to which the measured variables represent the constructs of the hypothesis (Heppner et al., 2016). Because the measures used in the study were well established measures for the measured constructs and have historically provided reliable consistency with a wide range of populations, the construct validity of the measures is expected to be high. However, the method of measuring situational appraisal style using the CERQ-short is a new approach, and as such, it lacks sufficient historical data to verify its construct validity.

External Validity

The external validity of this study is expected to be moderate to high based on the size of the sample pool, although there is a likelihood of a somewhat biased sample on account of the study including only those individuals who self-selected to undertake the completion of a survey which includes personal affective content. It could be argued that those who are lower in trait openness and higher in trait neuroticism would be less likely to complete such a survey than those who were more extraverted, and this may provide a somewhat skewed sample profile; however due to the self-selective nature of the voluntary online survey design, control in this area is limited to post assessment verification of normal sample distribution.

The Adverse Childhood Experience (ACE) scale was included in the questionnaire as a control measure for previous traumatic exposure among participants. Although the ACE scores are not part of the tested models, it was suspected that significant effects from past traumas such as adverse childhood experiences may have a significant influence on the other variables and their interactions in the model. Therefore, participant’s ACE scores were controlled for in each of the model tests. As such, the effects excluded the variance that would be accounted for by ACE scores.
Another potential consideration for external validity concerns is that research samples obtained through Mechanical Turk do not provide an exact representation of the general U.S. population. However, samples were found to not be significantly different from traditionally obtained samples in most characteristics (Casey et al., 2017). Some tendencies noted in samples collected before 2013 included a somewhat overrepresented younger white female demographic, which could cause concern for the present study; but these tendencies were found to have decreased in more recent samples, and an analysis of samples since 2013 have yielded more accurate gender representative results (Levay et al., 2016).

Other sampling biases which may occur with voluntary online survey formats include the possibility of unequal age distribution, and an inherent bias toward participants who are tech savvy or toward participants who have better computer access, which may have an association to socioeconomic factors.

**Summary**

This chapter discussed the study from a methodological perspective and provided an outline of the design, measures, and methods which will be used. In addition to a general overview of the design, the intent and purpose of the study was defined, and the research questions and hypotheses were stated. Separate sections addressed each of the selected measures in detail, as well as the procedures for participant recruitment, procedures for gathering data, and procedures for statistical analysis. A pictorial representation of the conceptual model was provided and a discussion of potential threats to validity was included along with a section outlining the steps ensuring ethical conduct in the research process.
CHAPTER FOUR: FINDINGS

Overview

The purpose of this study was to investigate the relationship between state-shame, perceived social support, empathy, and situational appraisal style as they relate to psychological resilience. As noted above, while shame has consistently been theorized to impact psychological resilience negatively, and empathy to have the converse influence, resiliency outcomes appear to reflect a more complex set of interactions between these constructs. The current research explored the conditional relationships theorized to exist between trait-shame, social support, empathy, and situational appraisal style and the combined influence of these constructs on psychological resilience. Specifically, the investigation sought to quantify the moderating influence of empathy and situational appraisal style on the relationship between trait-shame, social support, and psychological resilience with the aim of answering the following three research questions:

RQ1: Does trait-shame directly, and indirectly through perceived social support, predict reported resilience? RQ2: Does empathy moderate the relationship between trait-shame and perceived social support, perceived social support and resilience, and between trait-shame and resilience? RQ3: Does situational appraisal style moderate the relationship between trait-shame and perceived social support, perceived social support and resilience, and between trait-shame and resilience?

Data

Data Screening

The initial dataset from the surveys was transferred to an Excel spreadsheet, and was modified to a format that allowed for the data to be transferred into an SPSS file. The individual
items that were in string format (i.e., word responses) were auto transformed/coded as numeric and then all items were coded into the respective scales and associated subscales consistent with the individual scoring sheets for each measure. Any items that should be reversed coded were reversed coded prior to computing the total and sub-scales. Lastly, the dataset was screened, using syntax, to examine missing cases. The Data Screening Syntax used for the missing cases was as follows:

\[
\text{NVALID(Age_R,Gender_R,Ethnicity_R,RelStatus_R,Income_R,Education_R,N_siblings_R,TOSCA_Shame,ACE_Sum,IRI_PT,IRI_FS,IRI_EC,IRI_PD,SSSS_T,RS_T_SUM,Neg_SA,P_SA) = 17}
\]

The Interpersonal Reactivity Index (IRI) was scored by summing the PT and EC subscales and thereby creating a total score for the IRI measure. The formula used for calculating the total score was as follows:

\[
\text{IRI_TOT=Sum.14(IRI_2,IRI_4,IRI_9,IRI_14,IRI_18,IRI_20,IRI_3,IRI_8,IRI_11,IRI_15,IRI_21,IRI_25,IRI_28)}.
\]

Situational Appraisal Style was measured using the nine subscale CERQ-short. The subscales were divided into two groups based on their positive or negative correlation with symptoms of depression. The negative situational appraisal (Neg_SA) included 10 subscales and the non-negative situational appraisal (P_SA) included the remaining eight subscales. Situational Appraisal was calculated using the respective items:

\[
\]

\[
\]
Participants

To be included in the study, participants needed to be at least 18 years old and reside in the United States. Furthermore, the study only used data from fully completed surveys. The original dataset contained 535 respondents ($N = 535$) prior to data-screening. After removing responses that were incomplete and participants that did not meet the criteria for the study, the final sample included 503 participants ($N = 503$), and 32 participants were excluded.

The age distribution of participants ($N = 503$) showed that the age groups of 25-34 (165=32.8%), 35-44 (125=24.9%) and 45-54 (93=18.5%) accounted for the majority of responses while the other age groups tapered off in frequency 55-64 (74=14.7%), 65-74 (28=5.6%), 18-24 (14=2.8%), and 75 or older (4=0.8%). The sample included 284 (56.5%) male and 219 (43.5%) female participants who were predominantly white (367=73.0%) with other ethnicities represented in smaller numbers; American Indian or Alaska Native = 5 (1.0%), Asian or Asian American = 29 (5.8%), Black or African American = 62 (12.3%), Hispanic, Latino, or of Spanish Origin = 33 (6.6%), and other races = 7 (1.4%). The majority of participants were married: 302 (60%) were in their first marriage and 22 (4.4%) have remarried. Of those not currently married, 105 (20.9%) were never married, 38 (7.6%) were divorced and not in a relationship, 32 (6.4%) were in a long-term relationship but not married and four (0.8%) were widowed. The household income among participants was more evenly distributed with only 39 (7.8%) having reported an annual household income under $15,000, 13 (2.6%) between $100,000 and $150,000, and 29 (5.8%) reported above $150,000. The majority of participants reported income levels between $30,000 and $49,999 (136=27%) and between $50,000 and $74,999 (129=25.6%) while the remaining individuals fell within the $15,000 to $29,999 (88=17.5%)
range and the $75,000 to 99,999 (69=13.7%) range of household annual income. Regarding the level of attained education, most participants reported having some college (290=57.7%) and some graduate school (70=13.9%) while 29 (5.8%) graduated with a graduate degree, and 85 (16.9%) have not graduated high school. Most participants reported having one sibling while growing up (214=42.5%), followed by having 2 siblings (125=24.9%), 70 (13.9% reported having three or more siblings, and 94 (18.7%) of participants grew up in families where they were the only child.

**Data Analysis**

Prior to testing the mediated moderation models, the data was examined using the Pearson’s correlation analysis which provided an initial assessment of the degree to which each of the components in the model were correlated with one another. Following the correlation analysis, three models were tested using the Hayes conditional process analysis which yielded specific quantitative results describing the effect each variable had on the others. A positive effect means that higher levels of X are associated with higher levels of Y and a negative effect means that higher levels of X are associated with lower levels of Y. The analysis examined direct effects (the effect of X on Y), indirect effects $X \rightarrow M \rightarrow Y$ which is the amount of mediation, and the total effect in the simple mediation model (Model 1) which is the sum of the direct effect of X on Y and indirect effect of X on Y through M. The two moderated mediation models (Models 2 and 3) were tested to examine whether the relationships comprising the previously tested model were moderated by empathy and situational appraisal style (negative and non-negative). An effect was considered significant if the $p$ value was less than .05 and if the range for the confidence interval (LLCI to ULCI in the table below) did not include zero.
Although not a part of the model, the survey included the Adverse Childhood Experience questionnaire (ACE) as a means to control for the potential impact of varying levels of childhood trauma exposure within the sample population. Participant’s ACE scores were controlled for in each of the model tests. As such, the effects exclude the variance that would be accounted for by ACE scores. The decision to control for ACE was rooted in the notion that higher ACE scores may confound findings due to the possibility that those with higher ACE scores may show a disposition to score higher on certain variables in the model.

**Results**

**Pearson’s r Correlation Results**

Prior to testing the full models, a Pearson’s r correlation test was conducted to assess the relationship between variables (see Table 1). In contrast to expectations, shame was not found to be statistically significantly correlated with social support ($r = -.060, p > .05$). Further, in contrast to the expected relationship, shame was found to be significantly positively correlated with resilience ($r = .120, p < .01$). In terms of the hypothesized moderated mediation models, these correlations contrast the expectation that shame would be associated with decreased social support and resilience.

While shame was found to be positively correlated with negative situational appraisal ($r = .251, p < .01$), it was not found to be statistically significantly correlated with positive situational appraisal ($r = .081, p > .05$). Further, shame was found to be positively correlated with Empathy ($r = .100, p < .05$). Consistent with expectations, social support and resilience were also found to be positively significantly correlated ($r = .480, p < .01$), indicating that social support may be associated with increased resilience.
Correlation Summary

Contrary to expectations, the findings suggested that shame was not significantly correlated with social support. The absence of significant correlation between shame and social support indicates that the expectation that shame would be associated with decreased social support is not evident in this sample. Furthermore, shame was not only not found to be associated with decreased resilience, but instead, there was a significant positive correlation between shame and resilience. While these correlations were in direct contrast to expectations and the model configurations, other individual relationships such as the correlation between shame and negative situational appraisal ($r = .251$, $p < .01$) and between social support and resilience ($r = .480$, $p < .01$) were consistent with expectations.

Table 1. Pearson’s r, Means, and Standard Deviations.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Shame</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Social Support</td>
<td>-.060</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Resilience</td>
<td>.120**</td>
<td>.480**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Negative SA</td>
<td>.251**</td>
<td>-.071</td>
<td>.100*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) Positive SA</td>
<td>.081</td>
<td>.497**</td>
<td>.673**</td>
<td>.214**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6) Empathy (IRI)</td>
<td>.100*</td>
<td>.481**</td>
<td>.424**</td>
<td>-.233**</td>
<td>.328**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>(7) ACE</td>
<td>.208**</td>
<td>-.204**</td>
<td>-.039</td>
<td>.401**</td>
<td>.085</td>
<td>.295**</td>
<td>1</td>
</tr>
</tbody>
</table>

Mean 32.783 38.410 133.398 3.465 3.743 13.352 3.579
SD 8.709 10.543 25.196 .643 .702 5.506 3.524
Cronbach’s α .814 .856 .947 .771 .822 .774 .909

*Correlation is significant at the .05 level (2-tailed).

**Correlation is significant at the .01 level (2-tailed).
Simple Mediation Results From Model 1

A simple mediation model was tested in which it was hypothesized that social support would mediate the effect of trait shame on resilience (see Figure 2 and Table 2). Specifically, it was hypothesized that shame would have a significant negative effect on social support (H1a), that shame would have a significant negative direct effect on resilience (H2a), and that social support would have a significant positive effect on resilience (H1c). In this and each of the subsequent moderated mediation models, participants’ ACE scores were treated as a covariate in order to control for the influence of high scores on the ACE.

In contrast to expectations, trait shame was not found to transmit a significant effect on social support (b = -.022, SE = .054, CI = [-.129 to .084]). In addition, rather than being negatively associated with resilience as hypothesized (H1b), shame was found to transmit a significant positive effect on resilience (b = .413, SE = .114, CI = [.189 to .638]). This indicated that increased shame levels may be associated with increased resilience scores. Consistent with expectations regarding the association between social support and resilience (H1c), findings showed that social support had a significant positive effect on resilience (b = 1.183, SE = .094, CI = [.012 to .057]). These findings indicated that participant’s perceived social support may predict increased resilience. Additionally, findings indicated that participants’ ACE scores had a significant negative effect on social support (b = -.600, SE = .134, CI = [-.863 to -.337]). As such, findings support the potential for adverse childhood experience to influence individual’s perceived social support.

The Indirect Effect in Model 1: It was hypothesized that the relationship between shame and resilience would be mediated by social support; predicting that shame would transmit a significant effect on resilience through social support. In contrast to expectations, findings
indicated that the indirect effect of shame on resilience through social support was not significant 
\(b = -.026, SE = .066, CI = [-.164 \text{ to } .096])\). In other words, evidence was not found for the hypothesized indirect effect.

**Model 1: Simple mediation**

![Simple Mediation Model](image)

**Figure 2. Simple Mediation Model.**

**Note.** Dashed lines indicated insignificant effect and solid lines indicate significant effect.

<table>
<thead>
<tr>
<th>Table 2. Simple Mediation Model Results.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Source</strong></td>
</tr>
<tr>
<td>Social Support: (R = .205, R^2 = .042, MSE = 106.895, F(2, 500) = 10.993, p &lt; .001)</td>
</tr>
<tr>
<td>Shame</td>
</tr>
<tr>
<td>ACE</td>
</tr>
</tbody>
</table>

Resilience: \(R = .503, R^2 = .253, MSE = 476.780, F(3, 499) = 56.473, p < .001\)

| Shame | .413 | .114 | 3.613 | <.001 | .189 | .638 |
| Social Support | 1.183 | .094 | 12.528 | <.001 | .998 | 1.369 |
| ACE | .232 | .288 | .804 | .422 | -.335 | .799 |
**Model 1 Summary**: findings did not provide evidence for the hypothesized model configuration; in fact, shame was found to be positively associated with resilience. Nevertheless, findings provided strong evidence for the influence of perceived social support on resilience.

**Moderated Mediation Results**

Two moderated mediation models (Model 2 and Model 3) were tested to examine whether the relationships comprising the previously tested model were moderated by both empathy and situational appraisal style (negative and non-negative). The following two sections present the findings organized by their respective model of origin, while the results are presented in relation to each hypothesis in the following section titled Research Questions and Hypotheses.

**Model 2 and Related Findings**: A moderated mediation model was tested in which it was hypothesized that indirect effect of Shame on Resilience through Social Support would be moderated by Negative Situational Appraisal and Empathy (See Figure 3 and Table 3).

**Model 2: Moderators = Negative SA and Empathy.**

![Figure 3. Moderation by Negative Situational Appraisal and Empathy.](image-url)
Table 3. Moderation by Negative Situational Appraisal and Empathy (IRI)

<table>
<thead>
<tr>
<th>Source</th>
<th>b</th>
<th>se</th>
<th>T</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Support: R = .629, $R^2 = .395$, $MSE = 68.174$, $F(7, 495) = 46.209$, $p &lt; .001$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shame</td>
<td>-.120</td>
<td>.047</td>
<td>-2.560</td>
<td>&lt;.05</td>
<td>-.212</td>
<td>-.028</td>
</tr>
<tr>
<td>Negative-SA</td>
<td>-.262</td>
<td>.674</td>
<td>-.388</td>
<td>.698</td>
<td>-1.585</td>
<td>1.062</td>
</tr>
<tr>
<td>Shame X Negative-SA</td>
<td>.007</td>
<td>.062</td>
<td>.114</td>
<td>.909</td>
<td>-.114</td>
<td>.128</td>
</tr>
<tr>
<td>Empathy</td>
<td>.359</td>
<td>.049</td>
<td>7.380</td>
<td>&lt;.001</td>
<td>.264</td>
<td>.455</td>
</tr>
<tr>
<td>Shame X Empathy</td>
<td>-.010</td>
<td>.005</td>
<td>-2.114</td>
<td>&lt;.05</td>
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Resilience: R = .721, $R^2 = .520$, $MSE = 311.053$, $F(10, 492) = 53.255$, $p = <.001$

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<tr>
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<td>-1.074</td>
<td>.283</td>
<td>-.790</td>
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</table>
Model 2 Simple Effects: In contrast to the simple mediation model, when Negative Situational Appraisal and Empathy were included as moderators, while also controlling for Non-Negative Situational Appraisal (i.e., Positive-SA) and participants’ ACE Scores, Shame was found to be negatively significantly associated with Social Support (\(b = -.120, \text{SE} = .047, \text{CI} = [-.212 \text{ to } -.028]\)). That is, trait shame was associated with decreased perceived social support, which is consistent with expectations.

As expected, Empathy, on its own, was found to be significantly positively associated with Social Support (\(b = .359, \text{SE} = .049, \text{CI} = [.264 \text{ to } .455]\)); as such, findings support the expectation that empathy scores had a positive effect on perceived social support scores. Although findings did not support that Negative-SA, on its own, had a significant effect on Social Support, findings did indicate that Positive-SA (i.e., Non-Negative) had a significant positive effect on Social Support (\(b = 6.125, \text{SE} = .595, \text{CI} = [4.957 \text{ to } 7.293]\)). As such, model findings indicated that non-negative situational appraisal may be associated with increased perceived social support.

Effect of the Interaction of Shame and Negative-SA on Social Support: In contrast to expectations (H3.1b), findings indicated that the interaction of Shame and Negative-SA on Social Support was not significant (\(b = .007, \text{SE} = .062, \text{CI} = [-.114 \text{ to } .128]\)). In other words, the output for the model indicates that the Shame x Negative-SA interaction was non-significant and thus the effect of shame on social support was not found to be conditioned or vary as a product of the moderator (Negative-SA).

Effect of the Interaction of Shame and Empathy on Social Support: Findings did indicate that the interaction of Shame and Empathy on Social Support was statistically significant; however, in contrast to expectations the effect was negative (\(b = -.010, \text{SE} = .005, \text{CI} = [-.020 \text{ to } -.000]\)).
These findings indicate that the interaction of shame and empathy was associated with decreased social support. Specifically, a test of the unconditional interaction indicates that the interaction of shame and empathy accounted for 0.6% of the variance in social support, which is a small amount of variance. Moreover, the conditional effect of Shame on values of Empathy indicated that the interaction was not significant at low levels (16th) of empathy, but was significant at medium (50th) to high (84th) levels of empathy. Figure 4 provides a visual of the interaction effect.

Figure 4. Interaction effects of shame and empathy on social support.
Effect of the Interaction of Social Support and Negative-SA on Resilience: In contrast to expectations (H3.2b), findings indicated that the interaction of Social Support and Negative-SA on Resilience was not significant ($b = -0.083, SE = 0.143, CI = [-0.365 to 0.198]$). That is, the output for the model indicates that the Social Support x Negative-SA interaction was non-significant and thus the effect of social support on resilience was not found to be conditioned or vary as a product of the moderator (Negative-SA).

Effect of the Interaction of Social Support and Empathy on Resilience: In contrast to expectations, findings indicated that the interaction of Social Support and Empathy on Resilience was not significant ($b = 0.013, SE = 0.007, CI = [-0.002 to 0.027]$). In other words, the output for the model indicates that the Social Support x Empathy interaction was non-significant and thus the effect of social support on resilience was not found to be conditioned or vary as a product of the moderator (Empathy).

Moderation of the Direct Effect in Model 2: Neither the interaction of Shame and Negative-SA ($b = 0.163, SE = 0.132, CI = [-0.097 to 0.423]$) on Resilience (H3.3b) or the interaction of Shame and Empathy ($b = -0.010, SE = 0.011, CI = [-0.031 to 0.011]$) on Resilience (H2c) were found to be significant, meaning that the findings did not support that the direct effect was moderated by either Negative-SA or Empathy.

Model 2 Summary: Findings supported that shame was negatively associated with social support and social support was positively associated with resilience. The only significant interaction was the effect of shame and empathy on social support; however, it was negative which is in contrast to expectations. As neither moderator was found to transmit a significant positive effect (i.e., moderate the indirect effect), evidence was not found for moderated
EMPATHY AND SITUATIONAL APPRAISAL AS MODERATORS

mediation. The findings did not provide support that the effect of shame on resilience was moderated by both Negative-SA and Empathy.

Model 3 and Related Findings

Moderation by Positive-SA and Empathy: A moderated mediation model was tested in which it was hypothesized that indirect effect of Shame on Resilience through Social Support would be moderated by Positive Situational Appraisal and Empathy (See Figure 5 and Table 4).

Model 3: Moderators = Positive-SA and Empathy.

Figure 5. Moderation by Non-Negative (i.e., Positive) Situational Appraisal and Empathy.

Consistent with expectations, shame was found to be negatively associated with social support in the model in which positive-SA and Empathy were tested as moderators. In contrast to expectations, social support was not found to be significantly associated with resilience in this model. As the full indirect effect was not found to be moderated by both hypothesized
moderators, findings did not support that the effect of shame on resilience through social support was moderated by both positive-SA and Empathy.

Table 4. Moderation by Non-Negative (i.e., Positive-SA) Situational Appraisal and Empathy.

<table>
<thead>
<tr>
<th>Source</th>
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<th>$se$</th>
<th>$t$</th>
<th>$p$</th>
<th>LLCI</th>
<th>ULCI</th>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>Shame</td>
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<td>.045</td>
<td>-2.836</td>
<td>&lt;.05</td>
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<td>-.039</td>
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<td>4.717</td>
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<td>Shame X Positive-SA</td>
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<td>&lt;.005</td>
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<td>.836</td>
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</table>
**Simple Effects on Social Support:** Consistent with expectations Shame was found to transmit a significant negative effect on social support ($b = -.128$, SE = .045, CI = $[-.216$ to $-.039]$).

In addition, Positive-SA was found to transmit a significant strong positive effect on Social Support ($b = 5.894$, SE = .599, CI = $[4.717$ to $7.071]$). In other words, Positive-SA was associated with increased Social Support. Empathy was found on its own, to have a significant positive effect on social support as well ($b = .370$, SE = .049, CI = $[.275$ to $.466]$). That is, as empathy scores increased, so did the scores for perceived social support.

**Interaction Effects on Social Support:** The interaction of Shame and Positive-SA was found to transmit a significant positive effect on social support ($b = .118$, SE = .056, CI = $[.008$ to $.227]$); meaning that findings indicated that when empathy is tested as a moderator of the effect of shame on social support the effect is significant and positive. A test of the unconditional interaction suggests that the interaction of shame and Positive-SA accounted for 0.5% of the variance in social support. Also, the interaction of Shame and Empathy was found to transmit a significant negative effect on social support ($b = -.014$, SE = .005, CI = $[-.024$ to $-.004]$). A test of the unconditional interaction suggests that the interaction of shame and empathy accounted for 0.9% of the variance in social support.

**Direct effect of Shame on Resilience:** The interaction of Shame and Positive-SA was not found to transmit a significant effect on resilience ($b = .213$, SE = .120, CI = $[.024$ to $.450]$). The interaction of Shame and Empathy was also not found to transmit a significant effect on resilience ($b = -.019$, SE = .011, CI = $[-.041$ to $.002]$).

**Effect of Social Support on Resilience:** The interaction of Social Support and Positive-SA was not found to transmit a significant effect on Resilience ($b = -.171$, SE = .090, CI = $[-.349$ to $.006]$). However, the interaction of Social Support and Empathy was found to have a significant
positive effect on Resilience (b = .019, SE = .008, CI = [.004 to .034]), indicating that, consistent with expectations, empathy was found to positively moderate the effect of social support on resilience. A test of the unconditional interaction suggests that the interaction of social support and empathy accounted for 0.6% of the variance in resilience.

**Note:** In order to probe the individual effects, both moderators were tested on their own, in separate models, while controlling for the second moderator. These model tests revealed that when both moderators were not included the effects were non-significant.

**Model 3 Summary:** In contrast to expectations, shame was found to be negatively associated with social support in the model in which positive-SA and Empathy were tested as moderators. Also in contrast to expectations, social support was not found to be significantly associated with resilience in this model. As the full indirect effect was not found to be moderated by both hypothesized moderators, findings did not support that the effect of shame on resilience through social support was moderated by both positive-SA and Empathy.

**Research Questions and Hypotheses**

**Research Question 1:** Does trait-shame directly, and indirectly through perceived social support, predict reported resilience?

**Hypothesis 1a:** Trait-shame will be negatively correlated with perceived social support.

H1a was not fully supported by the results. Although a weak negative correlation between shame and perceived social support was measured, which confirmed the predicted directionality of the correlation, shame was not found to be significantly correlated with social support (r = -.060, p > .05).
Hypothesis 1b: Trait-shame will be negatively correlated with resilience. H1b was not supported by the results. Contrary to expectations, shame was found to be significantly positively correlated with resilience ($r = .120, p < .01$).

Hypothesis 1c: Perceived social support will be positively correlated with resilience. H1c was supported by the findings. Consistent with expectations, social support and resilience were found to be positively significantly correlated ($r = .480, p < .01$).

Research Question 2: Does empathy moderate the relationship between trait-shame and perceived social support, perceived social support and resilience, and between trait-shame and resilience?

Hypothesis 2a: Empathy will have a significant moderating role on the relationship between trait-shame and perceived social support. The results supported H2a in both model 2 and model 3. In case of positive-SA as well as in the case of Negative-SA, empathy exerted a significant moderating role on the shame-social support relationship. However, in both instances the exerted influence was negative which was in opposition to the expected positive direction.

Hypothesis 2b: Empathy will have a significant moderating role on the relationship between perceived social support and psychological resilience. H2b was fully supported only in model 3 where empathy was found to have a significant positive effect on social support ($b = .370$, $SE = .049$, CI = [.275 to .466]). The results showed that, as empathy scores increased, so did the scores for perceived social support when empathy and positive-SA were included as moderators.

Hypothesis 2c: Empathy will have a significant moderating role on the relationship between trait-shame and psychological resilience. The results did not support H2c in either
model. Empathy was not found to exert a significant effect on the direct relationship between shame and resilience ($b = -0.019, SE = 0.011, CI = [-0.041 to 0.002]$).

**Research Question 3:** Does situational appraisal style moderate the relationship between trait-shame and perceived social support, perceived social support and resilience, and between trait-shame and resilience?

**Hypothesis 3.1a:** Increased proclivity to employing cognitive emotional management skills associated with non-negative situational appraisal (Positive-SA) will moderate the relationship between trait-shame and perceived social support, and will be positively correlated with higher levels of perceived social support. This hypothesis was supported by the results. Positive-SA was found to transmit a significant strong positive effect on Social Support ($b = 5.894, SE = 0.599, CI = [4.717 to 7.071]$). That is, Positive-SA was found to be associated with increased Social Support. The interaction of Shame and Positive-SA was found to transmit a significant positive effect on social support ($b = 0.118, SE = 0.056, CI = [0.008 to 0.227]$); that is, findings indicated that when empathy is tested as a moderator of the effect of shame on social support the effect is significant and positive.

**Hypothesis 3.1b:** More frequent use of cognitive emotional management skills associated with negative situational appraisal will moderate the relationship between trait-shame and perceived social support, and will be negatively correlated with levels of perceived social support. The results did not support this hypothesis. In contrast to expectations, findings indicated that the interaction of Shame and Negative-SA on Social Support was not significant ($b = 0.007, SE = 0.062, CI = [-0.114 to 0.128]$). The output for the model indicated that the Shame x
Negative-SA interaction was non-significant and thus the effect of shame on social support was not found to be conditioned or vary as a product of the moderator (Negative-SA).

**Hypothesis 3.2a:** Increased proclivity to employing cognitive emotional management skills associated with non-negative situational appraisal (Positive-SA) will moderate the relationship between perceived social support and psychological resilience, and will be positively correlated with higher levels of psychological resilience. This hypothesis was not supported by the results. The interaction of Social Support and Positive-SA was not found to transmit a significant effect on Resilience ($b = -.171$, $SE = .090$, CI = [-.349 to .006]).

**Hypothesis 3.2b:** More frequent use of cognitive emotional management skills associated with negative situational appraisal will moderate the relationship between perceived social support and psychological resilience, and will be negatively correlated with levels of psychological resilience. This hypothesis was not supported by the findings. The results indicated that the interaction of Social Support and Negative-SA on Resilience was not significant ($b = -.083$, $SE = .143$, CI = [-.365 to .198]). The Social Support x Negative-SA interaction was non-significant and thus the effect of social support on resilience was not found to be conditioned or vary as a product of the moderator (Negative-SA).

**Hypothesis 3.3a:** Increased proclivity to employ cognitive emotional management skills associated with non-negative situational appraisal (Positive-SA) will moderate the relationship between trait-shame and psychological resilience, and will be positively correlated with higher levels of psychological resilience. This hypothesis was not supported by the results. The interaction of Shame and Positive-SA was not found to transmit a significant effect on resilience ($b = .213$, $SE = .120$, CI = [-.024 to .450]).
**Hypothesis 3.3b:** More frequent use of cognitive emotional management skills associated with negative situational appraisal will moderate the relationship between trait-shame and psychological resilience, and will be negatively correlated with levels of psychological resilience. This hypothesis was not supported by the findings. The interaction of Shame and Negative-SA (b = .163, SE = .132, CI = [-.097 to .423]) on Resilience was not found to be significant and therefore findings did not support that the direct effect was moderated by Negative-SA.

**Post-Hoc Test**

The contrasting findings of the tested models prompted further inquiry into the potential variations in shame interactions which may arise from additional protocols controlling for the TOSCA subscales. A post-hoc test of the model was conducted in which the TOSCA-Guilt and TOSCA-Externalization subscales were controlled for. Due to missing cases for some TOSCA subscales, the previously utilized sample was reduced from 503 to 471 (N = 471); however, the statistical distribution patterns for the sample demographics were not significantly altered from those of the original test sample of 503.

The simple mediation model in which it was hypothesized that social support would mediate the effect of trait shame on resilience was re-tested with TOSCA-Guilt and Externalization included as covariates to control for the potential for these constructs to influence the effect of shame on social support (see Figure 5 and Table 5). Findings provided interesting insights regarding the previously tested model’s contrasting findings. Specifically, when controlling for the other TOSCA subscales, trait shame was found to have a statistically significant negative effect on social support (b = -.292, SE = .075, CI = [-.439 to -.145]), which was consistent with expectations. Interestingly, both covariates (TOSCA-Guilt and TOSCA-
Externalization) were found to have statistically significant positive effects on social support (see Table 5). Also consistent with expectations, social support was found to transmit a statistically significant positive effect on resilience ($b = 1.033$, SE = .093, CI = [.850 to 1.215]). Further, the direct effect of shame on resilience was found to be negative, but statistically insignificant ($b = - .236$, SE = .153, CI = [-.536 to .064]). Lastly, the indirect effect of trait-shame on resilience through social support was found to be negatively statistically significant ($b = -.302$, SE = .098, CI = [-.512 to -.126]). This indicated that findings from the post-hoc model, in which the additional TOSCA subscales were controlled for, provided evidence of mediation. Specifically, findings suggested that shame is associated with decreased social support, which is then associated with decreased resilience.

Figure 6. Simple Mediation Model Controlling for Guilt and Externalization.
Table 5. Simple Mediation Model Results.

<table>
<thead>
<tr>
<th>Source</th>
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<th>ULCI</th>
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<td>-3.901</td>
<td>&lt;.001</td>
<td>-.439</td>
<td>-.145</td>
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<tr>
<td>Guilt</td>
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Summary

The current research explored the conditional relationships theorized to exist between trait-shame, social support, empathy, and situational appraisal style and the combined influence of these constructs on psychological resilience. The research provided quantitative data describing the moderating influence of empathy and situational appraisal style on the relationship between trait-shame, social support, and psychological resilience, and was aimed to address the following three research questions; RQ1: Does trait-shame directly, and indirectly through perceived social support, predict reported resilience? RQ2: Does empathy moderate the relationship between trait-shame and perceived social support, perceived social support and resilience, and between trait-shame and resilience? RQ3: Does situational appraisal style
moderate the relationship between trait-shame and perceived social support, perceived social support and resilience, and between trait-shame and resilience?

After a screening process, the data was examined using the Pearson’s correlation analysis which provided an initial assessment of the degree to which each of the components in the model were correlated with one another. Following the correlation analysis, three models were tested using the Hayes conditional process analysis. A simple mediation model (Model 1) and two moderated mediation models (Model 2 and 3) were tested, which yielded specific quantitative results describing the effect each variable had on the others.

Contrary to expectations, findings from the correlation analysis suggested that shame was not significantly correlated with social support. The absence of significant correlation between shame and social support indicates that the expectation that shame would be associated with decreased social support is not evident in this sample. Furthermore, shame was not only not found to be associated with decreased resilience, but instead, there was a significant positive correlation between shame and resilience. While these correlations were in direct contrast to expectations and the model configurations, other individual relationships such as the correlation between shame and negative situational appraisal ($r = .251, p < .01$) and between social support and resilience ($r = .480, p < .01$) were consistent with expectations.

Findings from the simple mediation model (Model 1), did not provide evidence for the hypothesized model configuration; in fact, the results from the model 1 test indicated that shame was positively associated with resilience. However, model 1 findings provided strong evidence for the influence of perceived social support on resilience which was consistent with expectations. Furthermore, the test of model 2, which included negative situational appraisal and empathy as moderators, also provided support for the hypothesis that shame was negatively
associated with social support and social support was positively associated with resilience. Model 3 results, which included positive situational appraisal and empathy as moderators, indicated that shame was negatively associated with social support and social support not significantly associated with resilience. As both moderators in both model 2 and 3 were not found to transmit a significant positive effect (i.e., moderate the indirect effect), evidence was not found for moderated mediation. Overall, the findings did not provide support that the effect of shame on resilience was moderated by both Situational Appraisal and Empathy.

The contrasting findings of the tested models prompted further inquiry into the potential variations in shame interactions which may arise from additional protocols controlling for the TOSCA subscales. A post-hoc test of the simple mediation model was conducted in which the TOSCA-Guilt and TOSCA-Externalization subscales were controlled for by including both subscales as covariates to control for the potential of these constructs to influence the effect of shame on social support. In this test, trait shame was found to have a statistically significant negative effect on social support and both covariates (TOSCA-Guilt and TOSCA-Externalization) were found to have statistically significant positive effects on social support. Also consistent with expectations, social support was found to transmit a statistically significant positive effect on resilience, and the direct effect of shame on resilience was found to be negative but statistically insignificant (b = -.236, SE = .153, CI = [-.536 to .064]). Lastly, the indirect effect of trait-shame on resilience through social support was found to be negatively statistically significant, which indicated that findings from the post-hoc model, in which the additional TOSCA subscales were controlled for, provided evidence of mediation. This was significant in that these findings indicate that shame is associated with decreased social support, which is then associated with decreased resilience.
CHAPTER FIVE: CONCLUSIONS

Overview

The focus of this research was the exploration of the unique pattern of interactions involving shame, social support, situational appraisal style, and empathy. The goal was to identify and quantitatively articulate the theorized patterns of conditional interactions through which empathy and appraisal style exert an influence on the relationship between shame, social support, and psychological resilience. The problem this study aimed to address is the incongruence between resilience outcomes and the current descriptions of how shame and empathy are expected to influence these outcomes. This incongruence indicates that there may be more complex interactions governing the relationships between shame social support, empathy, situational appraisal and resilience than previously described in the literature. The two distinct but converging problem areas found in the resilience research literature which motivated this research are: (1) the inconsistencies between predicted influences of empathy and shame on psychological resilience outcomes and (2) the sparsity of quantitative research in the field of empathy and resilience conducted with samples representative of the general U.S. population.

Discussion

Overview

The current study investigated the interrelated roles of trait-shame, perceived social support, empathy, and situational appraisal style in the context of their influence on psychological resilience. The results provided supportive evidence for the conditional moderating influence of empathy and situational appraisal style on the relationships between trait-shame, social support, and psychological resilience. Additionally, the results also confirmed
previous findings describing the interactions between social support and resilience (McKibbin et al., 2016) and between shame and empathy (Brown, 2006).

**Discussion**

Despite the differences of opinion among researchers regarding the specific items included in the overall list of factors associated with resilience, social support (McKibbin et al., 2016) and shame (Kreis et al., 2016) have both been considered as primary actors in relation to resilience outcomes. Therefore, it was the assertion of the study that elements which exert influence over these key factors would likely have the potential to significantly influence resilience outcomes via their influence on these factors. Empathy and situational appraisal have been put forward as elements which may have the capacity to exert influence over shame and social support, (Brown, 2006; Kalisch et al., 2015) and were therefore hypothesized to be potentially significant as indirect influencers of psychological resilience.

The study tested the assertion that empathy and situational appraisal style act as moderators in both the direct shame-resilience relationship as well as in the social support mediated shame-resilience relationship. The three research questions answered by the inquiry were: RQ1: Does trait-shame directly, and indirectly through perceived social support, predict reported resilience? RQ2: Does empathy moderate the relationship between trait-shame and perceived social support, perceived social support and resilience, and between trait-shame and resilience? RQ3: Does situational appraisal style moderate the relationship between trait-shame and perceived social support, perceived social support and resilience, and between trait-shame and resilience?
Research Question 1: Does trait-shame directly, and indirectly through perceived social support, predict reported resilience? The results of the initial correlational examination of potential relationships in the simple mediation model only partially confirmed the expected and well-established relationships between shame, social support, and resilience. Consistent with expectations and previous research findings (Ledesma, 2014; see also Bonanno et al., 2007; Brewin et al., 2000; Maddi et al., 2006; O’Leary, 1998; Richardson, 2002), social support and resilience were found to be positively significantly correlated, indicating that social support may be associated with increased resilience. This finding further reinforces the importance of social connectedness in the development of resilience, and implies that the development of abilities which enable better social connectedness, such as empathy and social skills, may be an effective intervention to foster more robust psychological resilience.

In model 2, shame was found to be negatively significantly associated with Social Support, indicating that higher levels of trait shame were associated with decreased perceived social support. This was consistent with expectations and implied that shame may adversely impact resilience through its negative association with social support. However, this finding was present in model 2 only, which implies that the shame-social support relationship may be conditional.

Research Question 2: Does empathy moderate the relationship between trait-shame and perceived social support, perceived social support and resilience, and between trait-shame and resilience? To answer this question, the moderating influence of empathy was explored through testing two models; Model 2, which included empathy alongside negative situational appraisal style as moderators, and Model 3, which included empathy alongside non-negative situational appraisal as moderators. As expected, empathy, on its own, was found to be significantly
positively associated with social support. In both models, as empathy scores increased, so did perceived social support scores. This was consistent with previous research findings (Hall et al., 2018; see also Iacoboni, 2009; Sternthal et al., 2010), and as such, current findings supported the expectation that empathy scores had a positive effect on perceived social support scores. One of the implication of this finding is that it may be necessary to reconsider the role empathy plays in society. Educators and policy makers may need to recognize that empathy is not merely a pleasant personal attribute, but rather it is an integral component to resilience. Due to the close association of empathy to social connectedness and social support, the development of empathy among infants, children and young adults should be considered to be a high priority objective when developing social programs aimed at increasing psychological resilience.

Unlike the individual effect of empathy on social support, the test of the combined interaction of shame and empathy on social support yielded somewhat contradictory results. Similar unexpected outcomes were also noted in earlier studies examining shame-empathy interactions (Regehr et al., 2002; see also Carlier et al., 2000; Fullerton et al., 1992; Haslam & Mallon, 2003), which call into question the validity of a linear model of interaction between these constructs. The expected impact of empathy on shame, based on a linear model, would have counteracted the negative impact of shame on social support proportionally to empathy scores; however, the results indicated a different pattern of interaction. The interaction of shame and empathy on social support was statistically significant, but the effect was negative in both models which would suggest that the interaction of shame and empathy was associated with decreased social support regardless of situational appraisal. Furthermore, the conditional effect of shame at low, medium, and high values of empathy indicated that the interaction was not significant at low levels (16th) of empathy, but was significant at medium (50th) to high (84th)
levels of empathy. The findings of this study were similar to previous research outcomes, which found that under some circumstances, increased empathy may lead to higher rates of traumatization and thus to lower psychological resilience (Regehr et al., 2002; see also Carlier et al., 2000; Fullerton et al., 1992; Haslam & Mallon, 2003), and conversely some forms of shame may lead to positive outcomes such as being better socialized and thereby lead to increased psychological resilience (Leach, 2017; see also De Hooge et al., 2010; Lickel et al., 2014).

Overall, these findings suggest that the shame-empathy interactions may not be linear and that they may better be explained by a curvilinear model. Conceptualizing the shame-empathy interaction through a curvilinear model could potentially resolve incongruences in findings by defining the optimal levels of empathy for a given level of shame. For example, in certain populations, medium to medium-high levels of empathy may be more effective at supporting resilience than high levels of empathy. At medium-high levels of empathy, the shame-empathy interaction is significant, but this level of empathy may not be high enough to adversely impact resilience by lowering the threshold of traumatization due to increased sensitivity. In other words, the resilience-fostering effectiveness of a given combination of factors may also depend on the balance of the relative strength of these factors to each other as well as to the particular environment.

**Research Question 3:** Does situational appraisal style moderate the relationship between trait-shame and perceived social support, perceived social support and resilience, and between trait-shame and resilience? To answer RQ3, a moderated mediation model was tested in which it was hypothesized that the direct and indirect effect of shame on resilience through social support would be moderated by negative situational appraisal and empathy (Model 2) and a separate model was tested in which the hypothesized direct and indirect effect of shame on resilience
through social support would be moderated by positive situational appraisal and empathy (Model 3).

While most of the interactions examined in this research question were not found to have significance, positive-SA was found to transmit a significant positive effect on social support. This finding indicated that positive-SA was associated with increased social support and in turn with psychological resilience. The implications of the association of positive-SA and social support are far reaching. Because situational appraisal style represents a tendency toward using positive or negative assessment approaches, it is expected that individuals will use a mixture of these assessment approaches, which would make the introduction of more adaptive assessment approaches a natural continuation of the existing available options. As a learnable skill, positive-SA may serve as one of the therapeutic targets for improving social connectedness, and for improving individual capacity for problem solving through increased ability to recognize a wider range of existing options.

ACE Scores and Post Hoc Test

Although the ACE scores were not part of the tested models, it was suspected that significant effects from past traumas such as adverse childhood experiences may have a significant influence on the other variables and their interactions in the model. Therefore, participant’s ACE scores were controlled for in each of the model tests. As such, the effects excluded the variance that would be accounted for by ACE scores. The decision to control for participants’ ACE scores may have been prudent as findings indicated that the ACE scores were correlated with shame, negative situational appraisal, and social support. As ACE scores increased, scores on the measures for shame and negative-SA also increased, and scores on
EMPATHY AND SITUATIONAL APPRAISAL AS MODERATORS

resilience decreased, which confirmed previous research findings about the continuing negative impact of childhood trauma among adults.

The combination of an unusual ACE score distribution for the sample along with contrasting findings of the tested models led to considering the possibility that the high level of childhood trauma present in the sample may alter the differentiation of guilt and shame. Previous research findings indicate that posttraumatic shame and guilt are complex multidimensional phenomena which can coexist (Wilson et al., 2006), and as such, these constructs may present or interact differentially to non-traumatic guilt and shame. To examine this possibility, the simple mediation model was re-tested with TOSCA-Guilt and Externalization included as covariates to control for the potential for these constructs to influence the effect of shame on social support. When controlling for the other TOSCA subscales, trait shame was found to have a statistically significant negative effect on social support, and social support was found to transmit a statistically significant positive effect on resilience. Furthermore, the direct effect of shame on resilience was found to be negative but statistically insignificant. And finally, the indirect effect of trait-shame on resilience through social support was found to be negatively statistically significant. In other words, the results of the post-hoc model, in which the additional TOSCA subscales were controlled for, provided evidence of mediation. Specifically, findings suggested that shame is associated with decreased social support, which is then associated with decreased resilience.
Implications

Scientific Contribution

This study contributed to the existing body of knowledge in the field of resilience by quantitatively testing the theorized impact of empathy (Brown, 2006) and non-negative situational appraisal style (Kalisch et al., 2015) as potential antidotes to or reducing factors of shame. This study will benefit current understanding in the field of psychological resilience through two specific contributions;

First, empathy’s theorized antidotal relationship to shame (Brown, 2006) was quantitatively examined in a larger sample that was more representative of the general U.S. population. While Brown (2006) found that increased empathy was consistently associated with a decreased sense of shame, these findings were from smaller-scale qualitative studies conducted with mostly female samples. The current study used a more representative and larger sample of participants and quantitatively examined the interaction of empathy within the direct shame-resilience relationship as well as in the social support mediated shame-resilience model. The current study was able to confirm several expected interactions of empathy through the tested mediated moderation models.

Second, this study tested the recently theorized moderating role of situational appraisal on the shame-resilience relationship (Kalisch et al., 2015). The influence of non-negative situational appraisal has been theorized to exert a reducing influence on shame. However, this theory has not been previously tested in larger samples (Kalisch et al., 2015). The current study tested the non-negative situational appraisal’s theorized reducing effect on shame with a larger sample, and was able to confirm several expected interactions of non-negative situational appraisal through the tested mediated moderation models. Given the close associations between
shame proneness and lower resilience (Dorahy et al., 2015), investigating appraisal style and its effect on shame reduction is directly linked to increasing psychological resilience and is expected to contribute to present knowledge on the viability of this approach for shame reduction and consequent fostering of more robust psychological resilience.

**Broader Contributions**

The findings sought in this study represent potentially significant value through their specific contribution to research as well as through their broader philosophical contribution to the overall understanding of empathy’s role in resilience. This is particularly salient as modern western society continues to redefine itself at an ever-increasing pace, leaving individuals to grapple with the rapidly changing landscape of inconsistent messages about morality, ethics and about how to live a meaningful and fulfilling life. As the pace of societal change increases, the ability to develop robust psychological resilience seems to be an increasingly important skill in order to have the cognitive and emotional means to effectively pursue a fulfilling life.

The results of this study provided additional evidence supporting the existence of interactions between shame, social support, and resilience which further underscored the importance and necessity of three broader applications. First, the findings point to the importance of fostering empathic development from early age through adulthood while recognizing that one’s capacity for relating to the inner emotional experience of others is both necessary for developing meaningful relationships and also potentially harmful when done without healthy boundaries in place. One’s empathic capacity is directly relevant to his or her psychological resilience, ability to work and socialize with others, and ultimately to one’s quality of life (Isaacs et al., 2017; see also Hebert et al., 2008; Resnick & Rosenheck, 2008, Reyes, 2012). This
research contributes to the current body of knowledge in the field of resilience through having provided quantitative data-driven descriptions of the interactions between state-shame, perceived social support, resilience and the theorized moderating roles of empathy and situational appraisal on these relationships. A better understanding of how these constructs interact to influence psychological resilience will benefit future efforts to more effectively foster resilience in both clinical and social contexts.

Second, the results of this study underscore and indirectly support the importance of early childhood attachment formation due to the pivotal role of this process in lifelong social connectedness and ultimately in psychological resilience. Results from the current study echoed previous findings which established the importance of social connectedness and social support to overall resilience and can be considered as further encouragement for those who have the ability to impact the quality of attachment between children and their caretakers to prioritize the support of healthy attachment formation through education, funding, and policy making. One of the primary ways to improve healthy attachment formation is through supporting healthy marriages. Healthy marriages create the context for developing healthy attachment formation through decreasing potential adverse childhood experiences and providing both direct positive engagement with the child as well as positive models for relationships. The current study highlights some of basic interactions evident through research analysis which parallel the Biblical teachings about the key role played by empathy and the importance and nature of relationships in contrast to shame and loneliness. Relationships may represent seemingly mundane parts of everyday life, yet these often-neglected areas of life contribute greatly to not only the recognition of the blessings we receive and can provide to one another, but also play an indispensable role in the formation of future generations and their ability to thrive.
Finally, the results of this study may be considered further evidence for the importance of deemphasizing shame and meaningfully communicating and modeling grace and forgiveness in individual interactions, congregational attitudes, and in doctrinal emphasis. This last implication is the widest and most encompassing in that it ties individual resilience outcomes to church doctrinal emphasis. Given the previously mentioned research findings on the importance of empathy and social support to resilience, the fostering of relationships in congregations via increased emphasis on the Grace we receive and show toward others, while placing less emphasis on the sin we have and shame we carry, may prove to have a positive impact on congregational attitudes and increase the churches’ influence in the wider community. It seems reasonable to propose that the increased influence of Christian teachings on empathy, grace, and relationships would meaningfully influence couple’s relationships which in turn would impact the attachment formation of their children and dramatically increase that generation’s resilience through the robust social connections they would naturally form with one another.

Limitations

Based on Shadish et al.’s (2002) recommendations for examining a given research design for validity concerns, the current design was examined for potential categories of confounds which may raise validity concerns in the areas of internal validity, construct validity, and external validity.

Internal Validity

Due to the cross-sectional design of this survey study, there are some internal validity concerns that emerge. First, because direct manipulation of factors is not feasible in a single survey design, the assumption of temporal precedence cannot be verified. While this study assumes the temporal precedence of trait-shame to social support based on the influence of trait-
shame on social seeking behaviors, social participation, and overall social connectedness (Karan, 2016), definitive data to support the position that it was in fact that way in the sample of interest could not be gathered given the study’s cross-sectional design. Therefore, the temporal precedence of factors was assumed with the acknowledgement that it was not specifically established in the sample population. Second, this study has a low level of protection against the possibility of unknown confounding variables and resultant rival explanations. Given the complexity of the interactions proposed by the mediated moderation model, there are numerous possible unknown external factors which may have exerted some influence in the study. While the existence of unknown confounding variables is a potential concern in this study, the design of the study attempted to minimize this type of vulnerability through including protective measures such as controlling for ACE scores of participants.

**Construct Validity**

Construct validity addresses the degree to which the measured variables represent the constructs of the hypothesis (Heppner et al., 2016). Because the measures used in the study were well established measures for the measured constructs and have historically provided reliable consistency with a wide range of populations, the construct validity of the measures is expected to be high. However, the method of measuring situational appraisal style using the CERQ-short is a new approach, and as such, it lacks sufficient historical data to verify its construct validity.

**External Validity**

The external validity of this study is expected to be moderate to high based on the size of the sample pool, although there is a likelihood of a somewhat biased sample on account of the study including only those individuals who self-selected to undertake the completion of a survey which includes personal affective content. It could be argued that those who are lower in trait
openness and higher in trait neuroticism would be less likely to complete such a survey than those who were more extraverted, and this may provide a somewhat skewed sample profile. However, due to the self-selective nature of the voluntary online survey, design control in this area was limited to post assessment verification of normal sample distribution which revealed generally normal distributions in all areas except in the reported ACE scores. The ACE score distributions showed a significantly higher percentage of extreme scores than would be expected in the general population.

Another potential consideration for external validity concerns is that research samples obtained through Mechanical Turk do not provide an exact representation of the general U.S. population. However, samples were found to not be significantly different from traditionally obtained samples in most characteristics (Casey et al., 2017). Some tendencies noted in samples collected before 2013 included a somewhat overrepresented younger white female demographic, which could cause concern for the present study, but these tendencies were found to have decreased in more recent samples and an analysis of samples since 2013 has yielded more accurate gender representative results (Levay et al., 2016). The current sample was found to be relatively gender equal, even though the racial distribution was heavily skewed toward white participants. Other sampling biases which may occur with voluntary online survey formats include the possibility of an inherent bias toward participants who are tech savvy or toward participants who have better computer access; and while these aspects are not expected to have a direct effect on the measured constructs, their indirect contribution to the context in which the measured contexts are evaluated could not be ruled out.
Recommendation for Future Research

One of the original motivating factors for conducting this study was the seemingly inconsistent impact of empathy on resilience. And while the results supported some of the predicted relationships, many more remain unexplored. Findings from the current study indicated that the interaction of Shame and Empathy on Social Support was statistically significant. However, in contrast to expectations, the effect was negative which means that the interaction of shame and empathy was associated with decreased social support. Moreover, the conditional effect of Shame at low, medium, and high values of Empathy indicated that the interaction was not significant at low levels (16th) of empathy but was significant at medium (50th) to high (84th) levels of empathy. In previous research, it was found that under some circumstances, increased empathy can lead to higher rates of traumatization and thus to lower psychological resilience (Regehr et al., 2002; see also Carlier et al., 2000; Fullerton et al., 1992; Haslam & Mallon, 2003). Given the combination of previous research findings of this reverse effect phenomena and the unusually high ACE scores reported within the test sample, this statistical outcome may well be a reflection of the non-linear impact of Empathy. Future research will be needed to establish whether empathy indeed exerts influence in a non-linear fashion, and if so, then to what extent it influences resilience outcomes.

A second branch of possible future research directions may include an inquiry into how situational appraisal styles and empathy influence the conditional relationships between trauma exposure, attachment styles, social support, and resilience. Research has indicated that people with secure attachment tended to have a more optimistic assessment of situations as compared to those with less secure attachment types (Khodarahimi et al., 2016). Additionally, Mikulincer and Shaver (2007) found that those with high levels of secure attachment tended to score higher on
measures of prosocial behaviors, trust, intimacy, and relationship satisfaction. These findings would indicate that attachment style is one of the key factors impacting the likelihood of seeking social support. Given the pivotal role of trauma exposures and attachment styles to social connectedness, and of social support to resilience, reconceptualizing the models tested in the current study to include attachment styles as well as measures of trauma exposure, may uncover further significant interactions in how empathy and situational appraisal influence resilience.

**Summary**

The current study investigated the interrelated roles of trait-shame, perceived social support, empathy, and situational appraisal style in the context of their influence on psychological resilience, and provided quantitative evidence of the conditional patterns of influence exerted by these constructs on psychological resilience. Specifically, the investigation focused on quantifying the moderating influence of empathy and situational appraisal style on the relationships between trait-shame, social support, and psychological resilience. The problem which motivated the research was that the current descriptions of how shame and empathy influence resilience were not fully congruent with resilience outcomes. This incongruence indicated that there may be more complex interactions governing the relationships between shame, social support, empathy, situational appraisal, and resilience than previously described in the literature. The study found supporting evidence for the mediating role of social support on the shame-resilience interaction and found evidence for conditional moderating influence exerted by the combination of empathy and situational appraisal style on the relationship between shame, social support, and resilience. However, the findings suggest that despite having found several significant interactions, there may be more complex conditional interactions governing resilience outcomes than accounted for in the tested models.
This chapter presented the initial motivation for the research and problem conceptualization along with the discussion of the findings as they relate to existing research. The limitations of the study were discussed and ideas for future research directions were explored. Additionally, the implications of current findings were discussed in the context of their contribution to the scientific understanding of resilience along with wider implications of the findings for social policy contexts and as well as in the context of Christian world view and ministry practices.
References


Patterson, J. L., & Kelleher, P. (2005). *Resilient school leaders: Strategies for turning adversity into achievement.* ASCD.


Appendix A,

IRB Approval Letter.

IRB-FY20-21-305

Title:
Empathy and Situational Appraisal as Moderators of the Relationship Between Shame, Social Support, and Resilience

PDF

Approval Date: 12-14-2020
Expiration Date: N/A
Organization: Community Care and Counseling
Admin Check-In Date: N/A
Closed Date: N/A
Current Policy: Post-2018 Rule
Active Submissions: N/A
Sponsors: N/A

Contacts and Attachments

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<tr>
<th>Team Member</th>
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<tbody>
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Dear Participant:

As a graduate student in the School of Behavioral Sciences, at Liberty University, I am conducting research as part of the requirements for a doctoral degree. The purpose of my research is to investigate how psychological resilience is impacted by the interactions between shame, social support, empathy, and situational appraisal. I would like to invite eligible participants to join my study.

Participants must be 18 years of age or older, be U.S. residents, and be able to read and complete a survey in English. Participants, if willing, will be asked to complete an online questionnaire which includes demographic questions, questions about childhood experiences, and asks participants to rate the accuracy of several lists of statements describing personal tendencies as these may apply to the participant. It should take approximately 15 minutes to complete the survey. Participation will be completely anonymous, and no personal, identifying information will be collected.

In order to participate, please click on the link provided on the Mechanical Turk site.

A consent document is provided as the first page of the survey. The consent document contains additional information about my research. After you have read the consent form, please click the button at the end of the consent form to proceed to the survey. Doing so will indicate that you have read the consent information and would like to take part in the survey. This survey is listed with Mechanical Turk and participants will receive $1.00 through Mechanical Turk after submitting the verification code provided at the end of the survey.

Sincerely,

Andras Oliser
(912) 313-3542
aoliser@liberty.edu
 Appendix C,

Consent Form

Consent Information

Title of the Project: Empathy and Situational Appraisal as Moderators of the Relationship Between Shame, Social Support, and Resilience

Principal Investigator: Andras Oliser MA, Doctoral Candidate, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. In order to participate, you must be a U.S. resident, at least 18 years old or older, and able to read and complete a survey in English. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research project.

What is the study about and why is it being done?

The purpose of the study is to gain a better understanding of how one’s psychological resilience may be impacted by one’s sense of social support, tendencies toward shame and empathy, or by the way one tends to evaluate situations.

What will happen if you take part in this study?
If you agree to be in this study, I would ask you to do the following things:
1. Please select "NEXT" at the bottom of this page to go to the next page to gain access to the survey.
2. Complete the survey. The survey includes a total of 120 multiple choice questions and should take approximately 15 minutes to complete.

How could you or others benefit from this study?
Participants should not expect to receive a direct benefit from taking part in this study. Benefits to society include furthering scientific research and understanding regarding the impact of shame, empathy, and situational assessment tendencies on human resilience. The findings sought in this study represent potentially significant value through their specific contribution to research as well as through their broader philosophical contribution to the overall understanding of empathy’s role in resilience.

What risks might you experience from being in this study?
The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life. However, some individuals may experience some anxiety as they answer questions about their childhood or about their emotional states. If you experience negative feelings or anxiety in the process of answering the survey questions and you feel
uncomfortable, please feel free to discontinue the survey and contact a counselor in your area or get in touch with a counselor online through www.betterhelp.com. If you would prefer immediate help through text, you can text “HOME” to 741741 to connect with a Crisis Counselor 24hrs / 7days a week.

How will personal information be protected?
The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records.
- Participant responses will be anonymous to the extent possible under the terms of Amazon Mechanical Turk. Your worker ID will be associated with the survey for compensation purposes. The researcher will make no attempt to deduce your identity from the worker ID.
- Data will be stored on a password-locked computer and may be used in future presentations. After three years, all electronic records will be deleted.

How will you be compensated for being part of the study?
Participants will be compensated for participating in this study in the amount of $1.00. At the completion of the survey, each participant will be given a verification code which can be redeemed through Mechanical Turk’s pay process.

Is study participation voluntary?
Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or or withdraw at any time, prior to submitting the survey, without affecting those relationships.

What should you do if you decide to withdraw from the study?
If you choose to withdraw from the study, please exit the survey prior to submitting it and close your internet browser. Your responses will not be recorded or included in the study.

Whom do you contact if you have questions or concerns about the study?
The researcher conducting this study is Andras Oliser. You may ask any questions you have now. If you have questions later, you are encouraged to contact him at aoliser@liberty.edu. You may also contact the researcher’s faculty sponsor, Dr. William D. Bird, at wbird@liberty.edu.

Whom do you contact if you have questions about your rights as a research participant?
If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Your Consent
Before agreeing to be part of the research, please be sure that you understand what the study is about. You can print a copy of the document for your records. If you have any questions about the study later, you can contact the researcher/study team using the information provided above. Next