SEATTLE PACIFIC LIBRARY

Seattle Pacific University
Digital Commons @ SPU

Industrial-Organizational Psychology Dissertations

Psychology, Family, and Community, School of

Winter 12-2020

Exploring the Impact of Self-Compassion on Lessons Learned from a Past Failure Experience

Emily Minaker
Seattle Pacific University

Follow this and additional works at: https://digitalcommons.spu.edu/iop_etd

 Part of the Industrial and Organizational Psychology Commons

Recommended Citation

Minaker, Emily, "Exploring the Impact of Self-Compassion on Lessons Learned from a Past Failure Experience" (2020). *Industrial-Organizational Psychology Dissertations*. 48.
https://digitalcommons.spu.edu/iop_etd/48

This Dissertation is brought to you for free and open access by the Psychology, Family, and Community, School of at Digital Commons @ SPU. It has been accepted for inclusion in Industrial-Organizational Psychology Dissertations by an authorized administrator of Digital Commons @ SPU.

Exploring the Impact of Self-Compassion on Lessons Learned from a Past Failure Experience

Emily Minaker

A dissertation proposal submitted in partial fulfillment

of the requirements for the degree of

Doctor of Philosophy

In

Industrial-Organizational Psychology

Seattle Pacific University

School of Psychology, Family, & Community

December 16, 2020

Approved by:

Paul Yost, Ph.D.
Chair & Associate Professor of Industrial-Organizational Psychology
Dissertation Chair

Robert B. McKenna, Ph.D.
Associate Professor of Industrial-Organizational Psychology
Committee Member

Stephanie Lopez, Ph.D.
Workforce Scientist
Nordstrom
Committee Member

Reviewed by:

Paul Yost, Ph.D.
Chair & Associate Professor of Industrial-Organizational Psychology

Katy Tangenberg, Ph.D.
Dean and Professor
School of Psychology, Family, & Community

.

Dedication

To Those Who Try

Early on in the dissertation process I landed on the simple realization that people who fail, are people who try. The participants in this study are people who tried, people who directed their efforts toward something and opened themselves up to the possibility of success or failure. This dissertation is dedicated to those who try. It is my hope that we see failure as something that is common to all of us. And, if it is something we find ourselves in the midst of, that we choose to be more kind to ourselves than critical.

To my Family

To my Dad, at times writing this dissertation felt like trying to skate during my first hockey practice when we left clear tape on the bottom of my skates. Thank you for always being there to help me find the clear tape. Thank you for your constant encouragement, support, and optimism – it is what dreams are made of. When you had every reason to, you never stopped showing up. Your ability to quite literally *never stop* has inspired me to always "just keep showing up."

To my Mom, thank you for always believing in me and seeing possibilities before I could see them for myself. Thank you for always letting me run my own pace, being there for every win, and every moment of speed wobble – you are always the voice that can crush the doubt. Thank you for meeting every one of my endeavors with enthusiasm and the utmost support. You have always been my greatest cheerleader.

To my "little" brothers Gord and Ben, the courage and amount of guts you both possess have been a constant source of inspiration for me. Your willingness to seek out discomfort and to learn for the sake of bettering those around you is something I will always aspire to. Thank you for being my most reliable source of laughter and solutions.

To Ryan, my greatest teammate, my "sport psych on speed-dial", and my literal water-boy. Your unwavering support and calm dependable temperament was everything I needed throughout this process. Every success, failure, breakthrough, and breakdown, whether near or far, you were there with a supportive word, a joke, and a glass of water, ensuring that I was in fact hydrated enough.

Acknowledgements

The completion of my dissertation feels like the greatest goal I have ever scored, to quote Abby Wambach “I have never scored a single goal in my life without the help of a teammate.” This acknowledgement is me pointing towards all of the people who made this goal possible.

First and foremost, I want to thank my dissertation chair, Dr. Paul Yost. I am so grateful for all of the time, effort, and care you have put into my dissertation. As well as the time you have invested in my development. Thank you for your willingness to jump on board. You have been a catalyst for me in so many ways, whether it was unexpected hallway conversations in my first year of the program, or brainstorming the model for my dissertation, I always left each conversation with an increase in efficacy. The thoughtfulness and care you expressed in those moments were pivotal for me. Thank you for asking powerful questions and always modeling a sense of intellectual humility. For the rest of my life I will ask myself “how am I wrong?” and “what else is going on here?”

Thank you to Dr. Rob McKenna, and Dr. Stephanie Lopez, who have both been so much more than committee members in this process. Dr. McKenna, thank you for all of your guidance, support, and time spent investing in my development as my advisor for the first four years of this program. Because of you, I have been able to experience so many unique opportunities as a PhD student. I have learned skills while being out in the applied world that I may not have otherwise learned in the classroom. Thank you for always pushing me to think deeper about the human experience and that which I am studying.

To Dr. Lopez, thank you for being there both on the first day of the program, and throughout the dissertation process to greet me with a caring smile, and a sense of community. I am so grateful for all of the time you have put into investing in both me and my dissertation. Both your lived experience with the process, and your thoughtfulness, have constructively challenged me and helped me to get to this point.

To the entire I-O faculty, Dr. Kendall, Dr. Bikos, and Dr. Collins, thank you for all of the time you have invested in me both as a scientist and a practitioner. I cannot imagine a more supportive place to be during the last four years. Thank you also to Dr. Katy Tangenberg, for always taking an interest in how I was doing, and for all of your support throughout this process.

To my cohort, RVT members, and all of those who I spent time writing alongside, your friendship and support have made this process that much sweeter. This journey would not have been the same without you all.

To my family and friends, from Kelowna, to Santa Barbara, to Denver, and finally Seattle, thank you for your love and support from both near and far! Thank you for always taking an interest in what I was studying and asking me questions about my dissertation, I appreciate it more than you know! I am looking forward to being able to spend a lot more time with each of you now. And to Sarah and Alex, thank you for letting me be your roommate for the first six months of this program and for always being there for me throughout it.

Table of Contents

List of Tables

List of Figures

List of Appendices

Emily Minaker

437 Words

Abstract

Although failure can be rich sources of learning, research has shown that experiences of failure also tend to coincide with strong psychological reactions. The negative emotions and isolation one feels may cause one to discount or dismiss one's failures. In doing so, individuals may be unable to properly appraise their shortcomings and fail to identify what they might learn. Previous research suggests that self-compassion (self-kindness, a sense of common humanity, and mindfulness) may impact experiences of failure in important ways. However, research has yet to empirically examine the impact of self-compassion on lessons learned from a past failure experience. The purpose of this study was to explore the impact of induced self-compassion on lessons learned. Additionally, this study sought to extend attribution theory by exploring the types of attributions people make about the lessons. After describing a past failure, an American sample of 354 Prolific Academic participants were randomly assigned to one of two experimental conditions: (a) a self-compassion induction, or (b) a control condition. Following manipulations, participants completed a measure of self-compassion and then reflected on lessons learned by writing the lesson that was most significant to them. Participants then rated the attributional dimensions for that lesson (e.g., locus of causality, personal controllability etc.,). As hypothesized, results from this study showed that those in the self-compassion condition had higher levels of self-compassion when compared with individuals in the control group (β =.315, $t(354) = 4.03$, $p < .001$). However, results did not support the hypotheses that those in the self-compassion group attributed their lessons learned as more internal (β =.08, $t(354) = .38$, p=.71), personally controllable (β =.01, $t(354) = .03$, p=.98), stable (β = -.14, $t(354) = -.82$, p=.41), global (β = -.12, $t(354) = -.69$, p=.49), universal (B= -.456, $t(354) = -1.25$, p=.21), or less externally controllable (β = -.09, $t(354) = -.35$, p=.73), when compared with individuals in a control group. Mediation analyses revealed an indirect effect of

condition on personal controllability through self-compassion (β = .13, 95% CI [.026, .251]). This result supported the hypothesis that participants would rate their lessons learned as more personally controllable through the process of self-compassion. However, results did not support the additional hypotheses that self-compassion would also mediate the relationship between induced self-compassion and locus of causality (β = .05, 95% CI [-.047, .159]), external controllability (β = .10, 95% CI [-.012, .242]), stability (β = -.06, 95% CI [-.155, .010]), universality (β = -.02, 95% CI [-.096, .048]), and globality (β = -.06, 95% CI [-.153, .031]). Future implications and research are suggested to further explore the impact of self-compassion on learning from failure.

Keywords: self-compassion, failure, learning from failure, attribution theory

Chapter I

Introduction and Literature Review

"You may encounter many defeats, but you must not be defeated. In fact, it may be necessary to encounter the defeats, so you can know who you are, what you can rise from, how you can still come out of it. I did then what I knew how to do. Now that I know better, I do better."

-Maya Angelou, 1969

Whether it is empirical research claiming that failure is a prerequisite of success (Wang, Jones, & Wang, 2019), or the movement in organizations of "fail fast, fail forward" (Pontefract, 2018), there is a deep desire to claim something positive beyond failure. For numerous reasons, the ability to move beyond one's failures is important. Substantial research has shown that experiences of failure can be catalysts for learning (Homsma et al., 2007; McCall, 2010; McCall et al., 1988). At the same time, previous research has suggested that negative psychological experiences often coincide with failure and may obstruct one's ability to learn from the experience (Baumard & Starbuck, 2005; Cannon & Edmondson, 2005; Carmeli, 2007; Crocker & Park, 2004; Eskries-Winkler & Fishbach, 2019). As time passes, learning may occur; however, the nature of the lessons may be different due to individual negative versus positive coping mechanisms (Crocker & Park, 2004; Shepherd, Patzelt, & Wolfe, 2014). The negative psychological experiences that often coincide with failure may cause one to "tune-out" (Eskries-Winkler & Fishbach, 2019). Simply put, one cannot learn from information that has not been attended to (Eskries-Winkler & Fishbach, 2019). To use the words of Maya Angelou, one may

be moving beyond their failures but never truly encountering them. Therefore, the purpose of this study was to explore the use of self-compassion as a mechanism to tune in to failure in order to address or overcome threats triggered by an experience of failure, that in turn, may impact the attributions one makes about the lessons learned from a past failure experience.

The purpose of this study was to explore the impact of induced self-compassion on lessons learned from a past failure experience. This study explored the relationships between self-compassion and attribution theory (Weiner, 1985). Above and beyond whether or not an individual learned from the failure, this study sought to understand the extent to which lessons learned are attributed as having an internal locus of causality, and the extent to which lessons learned are attributed as externally controllable, personally controllable, stable, global, and universal. It was hypothesized that self-compassion would *increase* the likelihood that people would perceive that the lessons learned reside within themselves (internal locus of causality), and not externally (external locus of causality). It was hypothesized that self-compassion would *decrease* the extent to which lessons learned were perceived to be under the control of other people or the situation (external controllability), and *increase* the likelihood that the lessons learned were perceived to be within one's control (personal controllability). Additionally, it was hypothesized that self-compassion would *increase* the extent to which lessons learned were something that others could relate to, and learn from (globality). As well as, it was hypothesized that self-compassion would *increase* the extent to which lessons learned were perceived to transfer to a wide range of situations and were not perceived to be isolated to an individual's experience of failure (universality), as well as *increase* the extent to which lessons learned were perceived as enduring and not fleeting (stability).

Additionally, based on learned helplessness theory (Abramson, Seligman, & Teasdale, 1978), it was hypothesized that individuals in the self-compassion group would be more realistic and rate their personal control more consistently with their perceived locus of causality (See Figure 4). That is, when lessons were perceived outside of their control, they would be less likely to assume the lesson resides within themselves, and instead more realistically attribute the lesson to others, or the situation. In other words, when lessons are perceived outside of their control, they would be less likely to assume they should have known them.

Although research has suggested that self-compassion may impact experiences of failure in important ways (e.g., Costa & Pinto-Gouveia, 2013; Leary et al., 2007; Miyagawa et al., 2019; Neff et al., 2005; Zhang & Chen, 2016); limited work has been done to empirically examine the impact of self-compassion on lessons learned from a past failure experience. Therefore, this study sought to address this identified gap in the literature. Additionally, this study sought to extend attribution theory in ways that will contribute to the learning from failure literature.

The following literature review will explore the constructs used within this study. I will first briefly introduce the concept of failure as the context in which this study will take place. Then, I will discuss the current research and literature on self-compassion. Next, I will discuss the relationship between self-compassion and failure, self-compassion and learning from failure, and attribution theory and lessons learned. Lastly, I will outline the research hypotheses.

Failure

Although at times people may want to appear as infallible, suffering and personal failure are part of the human condition (Neff, 2003a). Interestingly, there has been limited theory and research on what constitutes a failure (Newton et al., 2008). In the current study, failure will not be measured as a construct, but instead elicited and serve as the context that participants will

apply self-compassion and reflect on lessons learned. Therefore, the subjective nature of failure will be captured through each participant's experience of failure (Newton et al., 2008). However, it should be noted that operational definitions of failure often include a reference to the inability to meet a certain performance criteria, or experiencing a lack of success (Cannon & Edmondson, 2001). Examples of failure vary widely and can "range in importance and include loss of life such as in the Challenger disaster, or in a medication error in a hospital, to weak sales of a newly launched product, to something as seemingly unimportant as not understanding another person's ideas expressed in a meeting" (Cannon & Edmondson, 2001, p. 163).

Important to the purpose of this study is the additional recognition that experiences of failure are idiographic and psychologically meaningful to the person (Newton et al., 2008). Specifically, experiences of failure are often situations in which one had certain expectations and hopes, that challenged one's abilities, that one often feels a certain level of control and responsibility for, and that may serve as a measure for one's skills and competence (Newton et al., 2008). Failures are often profoundly personal experiences that are wrought with negative emotions, often significantly affecting one's self-confidence and self-esteem (Crocker & Park, 2004). Consequently, people are often socialized to distance themselves from their own failure (Cannon & Edmondson, 2005). As a result, tuning-in to failure in order to learn from the experience, may create a dilemma that individuals have to manage (Crocker & Park, 2004). Nevertheless, "the problem lies not in the stumble per se but in the assumption that one has it or not, which treats a stumble as proof of inadequacy rather than as an opportunity for learning" (McCall, 1998, p. 9). As will be discussed in more detail later, self-compassion has been identified as a construct that is potentially expressed during times of pain and failure to manage one's emotional reaction to failure. Specifically, self-compassion may be able to address or

overcome threats triggered by an experience of failure; that, in turn, may impact the lessons learned from a past failure experience.

Self-Compassion

To understand what is meant by the term self-compassion it may be useful to first consider how it differs from compassion. Specifically, when compassion towards another is felt it is usually because "one notices and is moved by the suffering of others, so that the desire to alleviate their suffering arises" (Neff, 2008, p.95). Whereas, self-compassion involves having a similar stance toward one's own suffering, where one treats oneself with kindness when faced with failure or adversity (Neff, 2003a). Self-compassion is defined as "being open to and moved by one's own suffering, experiencing feelings of caring and kindness toward oneself, taking an understanding, nonjudgmental attitude toward one's inadequacies and failures, and recognizing that one's own experience is part of the common human experience" (Neff, 2003b, p. 223). The construct has received increasing attention in the literature (Bluth & Neff, 2018; Leary et al., 2007; Neff, 2003a, 2003b). As currently studied, self-compassion has its roots in Eastern Philosophy and Buddhist thought, the self-concept and coping literature, and mindfulness acceptance-based clinical models (Neff, 2003a) although the construct intersects with other work such as research on self-forgiveness (Exline et al., 2017; Woodwyatt et al., 2017). Although, self-compassion has its roots in Buddhist thought, it has been studied across many religious and cultural contexts. To name a few, self-compassion has been studied with Christians (Brodar et al., 2015; Watson et al., 2011), Muslims (Ghorbani et al., 2012), among Asian cultures (Neff et al., 2008), African American's (Zhang et al., 2019), and beyond the United States, in Greece (Mantzios et al. 2015), France (Kotsuo & Leys, 2016), Spain (Garcia-Campayo et al., 2014), Italy (Petrocchi et al., 2014), and Brazil (de Souza & Hutz, 2016).

Self-compassion was introduced to the literature as a way of responding to the self when experiencing failure, adversity, or suffering (Neff, 2003b). Moreover, self-compassion has been proposed as an alternative way to conceptualize having a healthy stance towards oneself that does not involve evaluations of self-worth (Neff, 2003a). For example, when confronting inadequacy, suffering, or failure, self-compassionate individuals offer themselves warmth and non-judgmental understanding, instead of minimizing one's pain or reprimanding oneself with self-criticism. Stated differently, being self-compassionate towards oneself is in contrast to being harshly self-critical, perceiving an experience of failure or adversity as isolating, and over-identifying with painful thoughts and feelings (Neff et al., 2007).

Self-compassion consists of three conceptually distinct but interacting components: (a) self-kindness, (b) a sense of common humanity, and (c) mindfulness.

Self-Kindness

The sub-dimension of self-kindness entails being warm and understanding toward oneself when encountering failure, instead of ignoring one's pain, or expressing criticism towards one's self (Neff, 2003a). Specifically, individuals who have learned to be self-compassionate recognize that being imperfect, failing, and experiencing difficulties are inevitable; therefore, they tend to be kind to themselves when confronted with painful experiences, such as failure. Being kind and understanding toward oneself during experiences of failure is in contrast to being harshly self-critical and self-judgmental (Neff et al., 2007).

Common Humanity

The sub-dimension of common humanity encompasses the idea that "we are all in this together." Specifically, common humanity encompasses the idea that suffering and personal failure are part of the shared human experience (Neff, 2003a). This is in contrast to the sense of

isolation that often accompanies the experience of failure. Simply put, experiencing common humanity moves beyond, "a sense of 'I' as the only person suffering or making mistakes" (Neff et al., 2005, p. 97). Namely, in the experience of failure it is important that one remembers the similar experiences of others. The recognition of others' suffering leads to a reduction in feelings of isolation (Neff, 2003a). Ultimately, "being human means being flawed and imperfect, and learning from one's mistakes" (Neff & Vonk, 2009, p.26).

Mindfulness

The sub-dimension of mindfulness encompasses the idea that self-compassion requires taking a balanced approach to negative emotions so that feelings are neither suppressed nor exaggerated (Neff, 2008). This is in contrast to over-identifying or dissociating with experiences of failure, and instead, involves seeing the experience of failure objectively (Neff, 2008). Ultimately, the sub-dimension of mindfulness captures the "receptive state of mind in which one's thoughts and feelings are observed for what they are, not in terms of how they impact one's self-concept" (Neff, 2003a, p. 88).

Differentiating Self-Compassion from Other Relevant Concepts

In conceptualizing self-compassion, it is important to consider how it is similar but broader than other aspects of the self that have been previous studied in psychology. Below, relevant self-constructs have been identified that have some conceptual overlap but are differentiated from self-compassion. These constructs are self-esteem, self-forgiveness, self-pity, self-centeredness, and passivity.

Self-Compassion versus Self-Esteem

Self-esteem and self-compassion are both ways of thinking and feeling about one's self (Neff & Vonk, 2009). In general, self-esteem is the idea that people have an overall feeling of

self-worth that influences psychological functioning (Tafarodi & Swann, 1995). Self-compassion and self-esteem are similar in that they both entail experiencing positive instead of negative emotions towards the self (Neff & Vonk, 2009). However, there are multiple ways that the two constructs differ. Past research has suggested that self-compassion is distinct from self-esteem in that (a) they are correlated but not sufficiently to say that they are the same construct, (b) they have different correlates (e.g., self-compassion is negatively correlated with narcissism; Neff, 2003b), and (c) self-compassion predicts variation in psychological variables above and beyond self-esteem.

Although self-compassion and self-esteem have both been shown to be associated with positive psychological functioning, self-compassion has been shown to offer the benefits of self-esteem without the pitfalls. Namely, one of the biggest problems with self-esteem is that it may manifest itself as narcissism. However, unlike self-esteem, self-compassion has been shown to be negatively associated with narcissism (Neff, 2003b). Finally, self-esteem relies on positive evaluations of the self; whereas, self-compassion is not a particular type of self-evaluation (Neff & Vonk, 2009). For example, self-esteem is often bolstered by attaining goals and threatened by failure (Kernis, 2003), whereas self-compassion is intended to be felt when life is not going so well (Barnard & Curry, 2011; Neff & Vonk, 2009). For example, past research has suggested that when self-esteem is controlled for, self-compassion remains uniquely, and positively associated with positive affect, while it is negatively associated with negative affect and rumination (Leary et al., 2007; Neff & Vonk, 2009).

Self-Compassion versus Self-Forgiveness

In both the self-compassion and self-forgiveness literature the similarities described have come from the recognition that both acts involve recognizing one's humanity (Neff et al., 2003;

Woodwyatt et al., 2017). Specifically, Woodwyatt et al., (2017) theorize that through a sense of connectedness with something larger than oneself, a resulting sense of self-compassion could, in turn, promote self-forgiveness. In other words, self-compassion may be a means by which to help people resolve the shame, excessive guilt, and feelings of insecurity that may relieve moral struggles (Woodwyatt et al., 2017).

The self-forgiveness literature makes an important distinction between pseudo self-forgiveness, and genuine self-forgiveness. Specifically, pseudo self-forgiveness is thought of as simply releasing oneself from blame and increasing positive emotions, in essence "letting oneself off the hook" (Woodwyatt et al., 2017, p. 8). Whereas, genuine self-forgiveness is when individuals maintain an awareness of responsibility and having done wrong, while relieving self-condemnation. In recognizing the tension between pseudo self-forgiveness and genuine self-forgiveness Broader, et al (2015) theorized how through self-compassion, one may be more likely to express genuine self-forgiveness. Specifically, Broader et al., (2015) suggest that self-compassion "does not entail pseudo self-forgiveness or simple excusing of one's faults, but rather allows individuals to constructively process their shortcomings without over-identifying with them, feeling isolated in failure, or becoming consumed by feelings of inadequacy" (p. 232).

In acknowledgement of the close ties between self-forgiveness and Christianity, these authors further discuss how this is in alignment with how self-forgiveness is more than the concept of cheap grace "or the simple excusing of one's transgressions" (p. 232). To that extent, these authors suggest that self-compassion may be a more empowering construct in Christian communities compared to self-forgiveness as it is associated with taking responsibility for failures without becoming emotionally distraught or defensive (Brodar et al., 2015). This is

consistent with the forgiveness literature findings that genuine self-forgiveness includes the need for individuals to maintain their awareness of responsibility and having done wrong while relieving self-condemnation (Woodwyatt et al., 2017). Moreover, it may be important to note that although stemming from Buddhist thought (Neff, 2003a), self-compassion is a construct that has been shown to reflect the Christian idea of grace, as grace represents a kindness toward the self, albeit originating with God's compassion toward a person and then applied to one's self (Sisemore et al., 2011).

Self-Compassion versus Self-Pity

Self-compassion should also be distinguished from self-pity (Barnard & Curry, 2011). Specifically, when people express self-pity they are usually immersed in their own problems. Namely, others with similar problems are forgotten about as engaging in self-pity emphasizes feelings of isolation from others and exaggerates the extent of one's own suffering (Neff, 2005). Whereas self-compassion allows one to feel connected to the similar experiences of others while still acknowledging one's own experience of suffering.

Self-Compassion versus Self-Centeredness

Self-compassion is thought to not encompass self-centeredness due to the common humanity component (Barnard & Curry, 2011). That is, self-compassion is always in the context of compassion for oneself as one recognizes one is like others. For example, research has suggested that self-compassion was significantly correlated with social connectedness (Neff, 2003a).

Self-Compassion versus Passivity

Some have suggested that individuals fear that having too much self-compassion can lead to passivity (Neff, 2003a). However, when feelings of self-compassion are genuine, it does

not mean that one's failures go unnoticed; instead, it means that actions needed for optimal functioning are fostered with gentleness and patience (Neff, 2003a).

Self-compassion therefore offers a unique construct conceptually distinct from other constructs and provides a unique approach to coping with adverse experiences. Understanding the importance of self-compassion is a first step. Additional research suggests that self-compassion can be developed, and it is related to important outcomes.

Cultivating Self-Compassion

A key theoretical and research focus in recent years has been the extent to which self-compassion can be developed. Numerous experimental studies have demonstrated that self-compassion is a skill that can be acquired (Ferrari et al., 2019). For example, compassionate mind training (CMT) (Gilbert & Irons, 2005; Gilbert & Procter, 2006), and Mindful Self-Compassion (MSC; Neff & Germer, 2013), are interventions that have been shown to be associated with increases in self-compassion. In a meta-analysis on self-compassion interventions it was found that self-compassion led to a significant increase across 11 different psychosocial outcomes such as improvement in anxiety symptoms (Ferrari et al., 2019). Although the intervention type was found to be too diverse to analyze specific interventions, self-compassion based interventions produced a moderate and significant improvement in self-compassion scores. Examples of some of these interventions are presented below.

Compassionate mind training (CMT) was developed for patients with high self-criticism and shame to teach them how to produce self-soothing and self-reassuring thoughts (Gilbert & Irons, 2005; Gilbert & Procter, 2006). Participants are taught to think about self-compassion as a skill that can be learned and self-judgment as a habit that can be overcome. CMT aims to help patients develop a compassionate understanding of their distress and a concern for their well-

being, and to mindfully tolerate feelings and thoughts. Research has suggested after attending 12 2-hr group CMT sessions (Gilbert & Proctor, 2006), participants showed significant reductions in self-reported depression, anxiety, shame and intrusiveness of self-critical thoughts. Additionally, participants reported an increase in their ability to be self-soothing.

Neff and Germer (2013) developed a program specifically to enhance self-compassion called Mindful Self-Compassion (MSC). The goal of the program is to provide participants with a variety of tools to increase self-compassion which they can then integrate into their lives according to what works best for them. Results from a randomized control trial suggest that the MSC program effectively taught individuals how to become more compassionate towards themselves. Specifically, after 8 2-hr meetings participants reported a significant greater increase in self-compassion as compared with a waitlist control group. The MSC program was also successful in enhancing participants psychological functioning in comparison with the control group. Specifically, MSC participants experienced significantly greater life satisfaction as well as less anxiety, depression, stress, and avoidance.

Self-compassion has also been shown to be effectively induced through a short-term writing intervention. Leary et al. (2007) asked participants to respond in writing to prompts that were designed to lead them to think about the negative event in ways that tapped into the three components of self-compassion. Pertinent to the present study, the self-compassionate writing induction asks participants to recall a failure that has happened in the past. This study and subsequent studies indicate that, in comparison to control groups, the self-compassionate writing induction raised levels of an individual's self-compassion (Brienes & Chen, 2012; Dupasquier et al., 2020; Leary et al., 2007), individuals were more likely to say that the failure was their fault but not to exhibit an accompanying negative affect (Leary et al., 2007), it encouraged deeper and

lengthier disclosures to a stranger about one's failure experience (Dupasquier et al., 2020), and it was associated with a greater belief that failures are learning opportunities and a part of life (Miyagawa et al., 2019). As well, research indicates that participants viewed weaknesses as more malleable, and reported greater self-improvement motivation (Brienes & Chen, 2012). With respect to failure, these studies indicate that the self-compassion writing induction may experimentally induced a self-compassionate mindset. Further supporting the notion that self-compassion may impact reactions to distressing situations involving failure, rejection, embarrassment, and other negative events (Johnson & O'Brien, 2013).

Recent research has focused on understanding the underlying processes of self-compassion. Yip and Eddie (2020) found that inducing a self-compassionate mindset through writing resulted in faster negative disengagement, in comparison to control conditions. Specifically, this is consistent with research that suggests self-compassion as a way to help individuals decouple from negative experiences. Moreover, these researchers cite the value of self-compassion in the face of negative experiences in its inherent ability to mitigate negative emotions. Additionally, Kirschner et al. (2019) found that "self-compassion may reduce a negative self-bias and activate a content and calm state of mind with a disposition for kindness, care, social connectedness, and the ability to self-soothe when stressed" (p. 561). Specifically, a response pattern of reduced arousal (reduced heart rate and skin conductance) and increased parasympathetic activation (increased HRV) were found to be unique to the self-compassion condition. These authors noted that this physiological response pattern is associated with effective emotional regulation.

Self-Compassion and Its Correlates

In Neff's (2003a) theoretical framing for the construct of self-compassion, she proposed that self-compassion should be associated with increased well-being as reflected in lower depression, lower anxiety, and greater satisfaction with life. Subsequent theory and research has consistently found a positive association between self-compassion and several correlates of psychological well-being (Barnard & Curry, 2011; Mills et al., 2007; Williams et al., 2008; Bluth & Neff, 2018). These elements include among others, emotional intelligence, social connectedness, and mastery goals. As well, self-compassion has been associated with less self-criticism, depression, anxiety, rumination, thought suppression, and perfectionism (Adams & Leary, 2007; Neff, 2003a; Neff et al., 2005; Neff et al., 2007; Bluth & Neff, 2018). For example, In a meta-analysis that synthesized the findings from 65 published journal articles, Zessin et al. (2015) found a statistically significant increase to well-being resulting from manipulations of self-compassion. Specifically, using the Self-Compassion Scale (SCS; Neff, 2003) in non-clinical samples of adults, the strongest positive association with self-compassion existed for cognitive and psychological well-being. In addition, other metanalyses have examined the relationship of self-compassion to psychological distress and have observed large effect sizes for the association between these two variables (MacBeth & Gumley, 2012; Marsh et al., 2018). Specifically, MacBeth and Gumley (2012) found that higher levels of self-compassion corresponded with lower levels of psychological distress among adult populations. In regards to personality, research has suggested that self-compassion was associated with extraversion, agreeableness, conscientiousness, and negatively associated with neuroticism (Neff et al., 2007). Importantly, these authors found that self-compassion still predicted unique variance in positive functioning after controlling for personality variables.

Research has also shown that self-compassion was found to be associated with resilience (Bluth et al., 2018). Specifically, the positive associations found between self-compassion and resilience may indicate that the ability to be self-compassionate may provide individuals with ways in which they can build resilience (Bluth et al., 2018). For example, a possible explanation for the link between self-compassion and resilience is that the mindfulness component of self-compassion helps an individual be grounded in challenging moments and better able to respond in a constructive manner, rather than ruminating or reacting impulsively (Roeser & Pinela, 2014).

In the case of failure, research suggests that self-compassion is an adaptive way of managing personal failure and setbacks (Leary et al., 2007; Neff et al., 2018). Specifically, research has suggested that people with high self-compassion may be better able to alleviate the suffering that results from failure (Miyagawa et al., 2019; Miyagawa & Taniguchi, 2020; Neff et al., 2005; Zhang and Chen 2016); as well, self-compassionate individuals have been shown to be more likely to perceive failure as a chance for learning rather than an aversive threat to be avoided (Neff et al., 2005, Zhang and Chen 2016, Miyagawa et al., 2019). Although research has shown that self-compassion is positively correlated with the belief that failures are learning opportunities and part of life, and negatively correlated with the belief that failures are aversive and something that must be avoided (Miyagawa et al., 2019), much less is known about how, and even if, self-compassion impacts *learning* from failure.

Self-Compassion and Learning from Failure

With the understanding that different types of experiences teach different types of lessons, research by the Center for Creative Leadership identified experiences that had a significant impact on a leader's development (McCall et al., 1988). Specifically, the researchers

found that the type of experiences leaders learn from the most are those that stretch them and are full of adversity. One of the 16 key leadership experiences identified, setbacks and failures, generated a sense of loss and aloneness, and provided many lessons that are difficult to learn anywhere else (McCall et al., 1988). For example, some of the top lessons from experiences of setback and failures had to do with one's own personal limits and blind spots, coping with situations beyond one's control, and handling of relationships. Similarly, McCall et al (1988) found that other adverse experiences such as career setbacks, working for a bad boss, and negative personal life events are similarly critical events in a leader's development *if* lessons are captured (McCall, 2010). Although experiences of failure can be rich sources of learning, research has shown that experiences of failure also tend to coincide with strong psychological reactions, such as fear, self-criticism, self-judgment, emotional pain, and isolation that can present as barriers to learning from failure (Cannon & Edmondson, 2005; Crocker & Park, 2004; Carmeli & Schaubroeck, 2008; Eskries-Winkler & Fishbach, 2019; Neff, 2003a). Stated differently, the negative emotions and isolation one may feel from their own experiences of failure may cause one to discount, dismiss, or excuse one's failures. In doing so, an individual may be unable to properly appraise their shortcomings and fail to identify what they need to learn (Crocker & Park, 2004; Cannon & Edmondson, 2005). For example, recent research by Eskries-Winkler and Fishbach (2019) found that failure undermined learning in a series of five studies. Specifically, these authors hypothesized that failure may hurt the ego, which may lead people to "tune out" and in turn, fail to learn from the experience. It should be noted that this study operationalized the concept of ego-threat through the use of self-esteem scores. Results showed that participants who received failure feedback were significantly more likely than participants who received success feedback to feel that their self-esteem had been compromised.

In turn, the sense that failure was ego threatening subsequently undermined learning. Interestingly, these researchers also found that vicarious learning eliminated ego threat which was found to increase ability to learn from failure. Ultimately, these results suggest that the more failure is dissociated from the self, the less people may tune out and the more likely they may be to learn from failure (Eskries-Winkler & Fishbach, 2019).

As discussed above, research findings have shown that the learning that can follow from failure does not always occur, as the negative psychological experiences associated with the realities of failure may present barriers to learning (Baumard & Starbuck, 2005; Cannon & Edmondson, 2005, Carmeli, 2007; Eskries-Winkler & Fishbach, 2019). As Neff (2003a; 2003b) proposed, self-compassion offers an alternative way to conceptualize having a healthy stance toward oneself that does not involve evaluations of self-worth. Self-compassion may be a mechanism that can address or overcome threats triggered by an experience of failure; that in turn, may impact the lessons learned from a failure experience (Shepherd & Cardon, 2009). Specifically, self-compassion may be operationalized as a mechanism for "tuning-in" to failure where drops in self-esteem have been shown to cause one to "tune-out." For example, self-compassion has been shown to offer the benefits of self-esteem without the pitfalls (Neff, 2003a) such as ego reactivity (Neff & Vonk, 2009).

As discussed previously, self-compassion involves being kind and understanding towards oneself rather than being harshly self-critical, perceiving one's experiences as part of the larger human experience rather than seeing them as isolating, and holding painful thoughts and feelings in mindful awareness rather than over identifying with them (Neff, 2003a; 2003b). To support the conceptualization of self-compassion as a mechanism that can be used for tuning-in to failure, previous research has shown that self-compassion may propel people to confront difficult

life experiences head-on (Zhang & Chen, 2016). For example, self-compassionate people were shown to report less experiential avoidance (Costa & Pinto-Gouveia, 2013). Additionally, research has shown that self-compassionate students who experienced a recent academic failure were more likely to report using adaptive emotion-focus strategies of positive reinterpretation and acceptance (Neff et al., 2005). Additionally, the students reported not only greater levels of acceptance and lower denial (i.e., "an attempt to reject the reality of the stressful event"), but also lower behavioral disengagement (i.e., "psychological disengagement from the event through self-distraction) and lower mental disengagement (i.e., "giving up on the attempt to attain one's goals"; Neff et al., 2005). Similarly, individuals who were led to experience self-compassion about a personal negative event, compared with self-esteem and a neutral condition, were more willing to admit personal responsibility for the event (Leary et al., 2007). Taken together, the above findings suggest that as self-compassionate individuals may be kinder to themselves when they experience failure, are more mindful of their negative emotions, and they may be less consumed with what an experience of failure says about their self-worth (Neff et al., 2005). In the next section, I will discuss how and why the constructs of self-compassion are likely to impact lessons learned from failure.

Shephard and Cardon (2009) proposed a model of the impact of self-compassion on learning from project failure. Although the article is non-empirical and focuses on the context of project failure, Shephard and Cardon (2009) help to theoretically support the notion that the different mechanisms of self-compassion may impact lessons learned from failure. Their theoretical propositions help to guide the reasoning of how self-compassion may impact lessons learned from failure.

Self-Kindness and Learning from Failure

Through being kind to oneself, individuals may be less likely to criticize themselves for failing to meet ideal standards (Neff, 2003a). Although at times misunderstood, being self-kind does not mean that failings go unnoticed or are passively accepted (Shephard & Cardon, 2009; Robinson et al., 2016). Specifically, being kind towards oneself may help to remove barriers to learning from failure, as harsh self-judgment may cause the protective mechanism of the ego to be activated (Shephard & Cardon, 2009; Eskries-Winkler & Fishbach, 2019). Additionally, being kind towards oneself may help to assess failure separate from evaluations of self-worth. In turn, Shephard and Cardon (2009) posit that self-compassionate individuals may have fewer obstacles to obstruct the learning process.

Common Humanity and Learning from Failure

By recognizing that the feelings of suffering from failure are shared with others, individuals may be less critical of themselves and may be more likely to forgive themselves for their mistakes (Neff, 2003). Simply put, failure may therefore be seen as less of a threat to one's self-esteem (Shepherd & Cardon, 2009). Additionally, common humanity may be seen as similar to the construct of vicarious learning, as previously discussed, Eskries-Winkler and Fishbach (2019) found that participants learned significantly more from others failures than their own failures, in which they concluded that the more failure was dissociated from the self, the less people were likely to "tune out" and the more likely they were to learn. In the next section, I will discuss how mindfulness may impact the lessons learned from failure.

Mindfulness and Learning from Failure

Instead of focusing on the difficult thoughts and feelings that may be associated with a failure experience, mindfulness should help an individual to accept the failure experience for what it can be, a learning opportunity (Shepherd & Cardon, 2009). Stated differently,

mindfulness may help to keep the individual from ruminating or over-identifying with the failure experience which in turn, may allow the individual to tune-in to the valuable information their failure experience can offer (Shepherd & Cardon, 2009). Much like reflecting through the ways of self-kindness and common humanity, mindfulness may help to detach the evaluation of the event from the evaluation of the self, in turn there may again, be fewer barriers to obstruct learning. In the next section, I will discuss the nature of exploring the lessons learned to a greater extent.

Lessons Learned from Failure

Above and beyond whether or not an individual learned from the failure, this study seeks to understand the extent to which lessons learned are attributed as having an internal locus of causality, and the extent to which lessons learned are attributed as externally controllable, personally controllable, stable, global, and universal. This will provide greater insight into the nature of the lesson's individuals are learning from failure. In the next section, I will discuss the theoretical underpinnings of assessing lessons in this way using attribution theory.

Theoretical Underpinnings

Attribution Theory

Although attribution theory is usually applied when thinking about the causes of outcomes, attribution theory will be extended to explore the attributions made about lessons learned from a failure experience. The common idea behind attribution theory is that people interpret behavior in terms of its causes and that these interpretations play an important role in determining reactions to the behavior (Kelley & Michela, 1980). Attribution theory has influenced other theories of motivation including learned helplessness and learning orientation theory as in both cases it is the underlying attribution of the cause of failure that has shown to

predict positive outcomes, not necessarily the failure itself. For example, when failure is attributed to effort or strategy instead of ability individuals may be more likely to seek challenges and persist instead of feeling helpless (Dweck, 1986). Seminal work on this body of research was conducted by Fritz Heider (1958), in which he characterized people as "naïve psychologists" who have an innate desire to understand the causes of behaviors and outcomes. Heider (1958) further asserted that causal explanations (attributions) give people the means by which to make sense of their world. Weiner (1985) extended this work to identify several underlying dimensions on which attributions can fall including locus of causality, controllability, and stability and proposed others that may also be at play including globality. Since then, research has established strong evidence for the first three dimensions and expanded on additional attributional dimensions. These include, universality and globality (Coffee & Rees, 2008). All of the above attribution dimensions will be used in order to better obtain greater information about the nature of the lessons learned. Specifically, the casual attributional dimensions that will be discussed below are: (a) locus of causality, (b) external controllability, (c) personal controllability, (d) universality, (e) globality, and (f) stability.

Locus of Causality. Locus of causality is often cited as the most commonly studied attributional dimension (Harvey et al., 2014; Weiner, 2018). The locus of causality refers to whether the perceived cause of an outcome is internal or external (Weiner, 1985). Stated differently does the cause reside within or is it external to the attributor? In extending locus of causality to lessons learned, the question becomes: does self-compassion increase the likelihood that people will perceive that the lessons learned reside within themselves and not externally? For example, individuals will rate the extent to which their lesson is something about them (internal locus of causality) or something about others, or the situation (external locus of

causality). It is hypothesized that individuals who are asked to reflect on a failure and then engage in a reflection activity of self-compassion, will attribute their lesson learned as more internal to a greater extent.

Self-compassion should increase the perceived internal locus of causality of one's lessons learned because previous research has suggested that reflecting on a failure in a self-compassionate way allowed participants to acknowledge that they were the kind of person who made mistakes, yet they did not feel badly about something that is a common experience (Leary et al., 2007). Therefore, when reflecting on their most important lesson learned, the individual should be more likely to cite a lesson about their own personal blind spots, for example. Importantly, this may suggest that the individual has not discounted, dismissed, or excused their failure, and instead, identified lessons about themselves. Whereas, for the person in the control condition who has not induced a self-compassionate mindset, the negative psychological experience associated with a past failure may not be decoupled from the self. In wanting to maintain a sense of self-worth, this individual may cite a lesson that had more to do about others or the situation. Again, Leary et al. (2007) found that for participants in the control condition attributing the event to "the kind of person you are" correlated positively with negative emotions, but in the self-compassion condition, the correlation between taking responsibility and negative emotions was almost zero.

Controllability. Controllability refers to whether the cause is under the control of the person or other people, or not under the control of the person or other people (Russel & McAuley, 1986; Weiner, 1985). Specifically, factors such as luck and task difficulty are generally perceived to be uncontrollable, whereas effort and persistence are viewed as more controllable factors. As this description suggests, there is some overlap between the

controllability dimension and the locus of causality dimension. For example, external causes are generally beyond a person's control, whereas internal causes are often controllable. However, some causal factors are internal but relatively uncontrollable, such as illness or personality traits such as extroversion/introversion. Controllability will be conceptualized as whether the lesson learned was personally controllable or externally controllable. In this study, there are two sub-dimensions of controllability: personal controllability and external controllability.

External controllability. External controllability is an attributional dimension in which lessons are perceived to be either within or beyond anyone's (other than the person's) control (controllable vs. uncontrollable; McAuley et al., 1985). For example, individuals will rate the extent to which their lesson is something that others have control over (external control). It is hypothesized that individuals who are asked to reflect on a failure and then engage in a reflection activity of self-compassion, will attribute their lessons learned as less externally controllable. Specifically, does self-compassion decrease the likelihood that people perceive that the lessons learned are under the control of other people or the situation?

Personal controllability. Personal controllability is an attributional dimension in which lessons are perceived to be within or beyond the person's control. For example, individuals will rate the extent to which their lesson is manageable by them (personal control). It is hypothesized that individuals who are asked to reflect on a failure and then engage in a reflection activity of self-compassion, will attribute their lessons learned as more personally controllable. Specifically, does self-compassion increase the likelihood that people will perceive that the lessons learned are within their control?

It is hypothesized that self-compassion should increase the perceived controllability of one's lessons learned for reasons similar to increasing the perceived internal causality of the

lesson learned. Previous research has suggested that self-compassion may promote taking responsibility for one's failures (Leary et al., 2007); therefore, participants assigned to the self-compassion condition should rate their most important lesson learned as more personally controllable to a greater extent.

Perceived Controllability and Locus of Causality. Additionally, the effect and importance of perceived controllability is demonstrated in Abramson et al. (1978) reformulation of the learned helplessness model as they found that the most direct determinant of helplessness is uncontrollability. Therefore, it is also hypothesized that individuals who are asked to reflect on a failure and then engage in a reflection activity of self-compassion, who attribute their lessons learned as being uncontrollable (low personal control), will also attribute them as having an external locus of causality, in comparison with individuals in a control group. Stated differently, in alignment with learned helplessness theory it is important that for individuals who are citing lessons learned for which they believe they have little personal control over, that they are accurately attributing the lesson to reside within the situation or other people, versus residing within themselves.

The following example highlights how the three attributional dimensions (causality, personal control, situational control) are related but distinct. It is presented to highlight what is proposed to be happening for participants who are in the self-compassion group, and for those who are in the control group. A participant reflects on a failure in which they launched a business and it failed. This individual launched the business right before the pandemic impacted the economy. In reality, the pandemic had an impact on the business failing. However, the negative psychological experience of the failure caused the individual to continually ruminate on what they could have done differently. Moreover, the harsh self-judgment and self-criticism has taken

a toll on the individual. The individual cites their most important lesson learned as "I learned that I should have been more aware of the direction the pandemic was going to go and the impact this would have on my business." Due to the unpredictability of the pandemic the individual cites this lesson as something they had little personal control over. However, at the same time, they cite the lesson as being internal to themselves because they believed they should have been more aware. However, if this participant is asked to reflect on the same failure self-compassionately, they may still cite the same lesson but through inducing self-compassion they may be more likely to decouple themselves from the negative psychological experience and may be more likely to accurately see that this lesson was one in which had an external locus of causality. In other words, the lesson resided within the situation versus residing within themselves. Therefore, when thinking about launching a future business the individual may feel more hopeful as they accurately recognize the external locus of causality *of their lesson learned.*

Universality. While controllability relates to whether the cause is externally controllable, or personally controllable, the universality, globality, and stability, dimensions are somewhat different, in that they deal with the generalizability of the cause of the event (Coffee & Rees, 2008). Universality refers to the extent to which a cause is common to all people (a universal attribution) or unique to the individual (a personal attribution; Coffee & Rees, 2008). In extending attribution theory to explore the attributions made about lessons learned from a failure experience, universality will represent the extent to which a lesson is perceived to be common to many people, or specific to the individual. Simply put, is the lesson learned one that other people can relate to and learn from? It is hypothesized that individuals who are asked to reflect on a failure and then engage in a reflection activity of self-compassion, will attribute their lessons

learned as more universal. Specifically, does self-compassion increase the likelihood that people will perceive that the lessons learned are something that others can relate to and learn from?

It is hypothesized that self-compassion should increase the perceived universality of lessons because by reflecting on a failure in a self-compassionate way the individual is prompted to think about their failure in relation to others who have gone through something similar (Neff, 2003a). Moreover, previous research suggests that writing about a past failure experience self-compassionately encouraged deeper and lengthier disclosure to a stranger about the failure experience (Dupasquier et al., 2020). Taken together, these findings support the hypothesis that those who reflect on a failure self-compassionately will see their lessons as something that others could relate to and learn from.

Globality. The globality of attributions reflect the degree to which one believes that the causes of events generalize across situations (Weiner, 1985). Specifically, the addition of globality refers to whether the cause affects a wide range of situations with which the person is faced (a global attribution) or a narrow range of situations (a specific attribution). In extending attribution theory to explore the attributions made about lessons learned from a failure experience, globality will represent the extent to which people believe that their lessons learned will generalize across situations. Namely, does the lesson learned relate to a wide range of situations, or is it specific to their failure experience? It is hypothesized that individuals who are asked to reflect on a failure and then engage in a reflection activity of self-compassion, will attribute their lessons learned as more global. Specifically, does self-compassion increase the likelihood that people will perceive that the lessons learned can transfer to a wide range of situations and not solely isolated to their experience of failure?

It is hypothesized that self-compassion should increase the perceived globality of one's lessons learned because research has suggested that reflecting on a failure in a self-compassionate way has been shown to cause an individual to take an understanding and nonjudgmental attitude toward one's failure (Neff, 2003a), and decouple the negative experience from the self (Yip & Eddie, 2020). Moreover, by reducing the sense of isolation and over-identification that one may have with their experience of failure their lesson may become less narrowly focused, and instead the individual cites the most important lesson learned as one that can impact a wide range of situations for them.

Stability. The attributional dimension of stability refers to whether a cause will change over time (unstable) or will not change over time (stable; Weiner, 1985). For example, a person's intelligence is typically viewed as a relatively stable factor, whereas effort level is more variable. In extending attribution theory to explore the attributions made about lessons learned from a failure experience, stability will represent the extent to which people believe that their lessons learned are enduring (stable) or fleeting (unstable). Simply put, is the lesson learned an enduring and long-term lesson? Or is it, a fleeting and short-term lesson? It is hypothesized that individuals who are asked to reflect on a failure and then engage in a reflection activity of self-compassion, will attribute their lessons learned as more stable. Specifically, does self-compassion increase the likelihood that people will perceive that the lessons learned are enduring and not fleeting?

It is hypothesized that self-compassion should increase the perceived stability of one's lessons learned for similar reasons that self-compassion should impact the globality of one's lessons. Namely, if the negative psychological experience is not decoupled from the self the individual may rather see that anything learned from that failure is fleeting, in other words, that it

no longer provides value to their life. Therefore, by decoupling the negative emotion from the self, self-compassion should increase the perceived stability of one's lessons learned.

Hypotheses

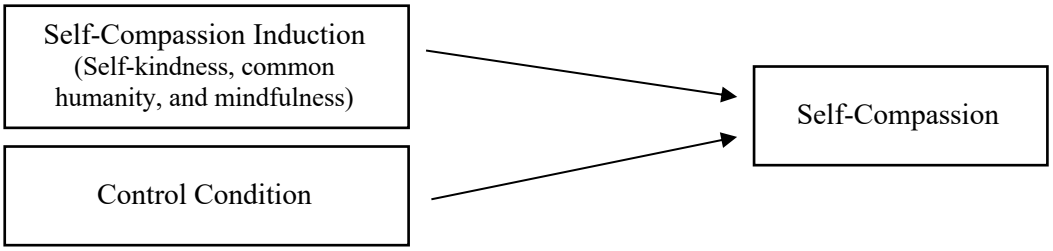
Based on the above discussion, the hypotheses that were tested in this study are summarized as follows:

Hypothesis 1

Individuals who are asked to reflect on a failure and then engage in a reflection activity of self-compassion, will have higher levels of self-compassion (self-kindness, common humanity, and mindfulness) when compared with individuals in a control group.

Figure 1

Proposed Relationship Between Conditions and Self-Compassion.

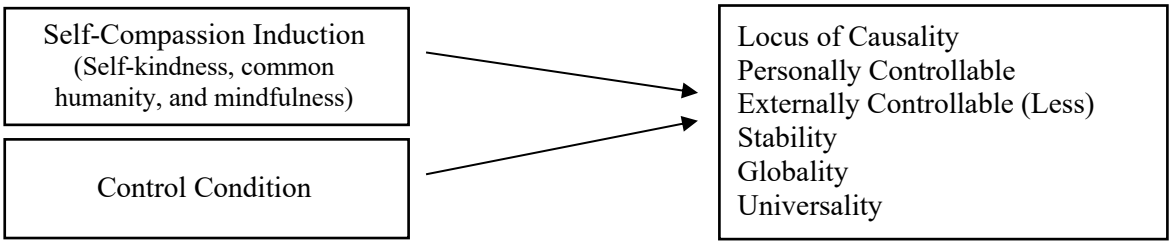


Hypothesis 2a

Individuals who are asked to reflect on a failure and then engage in a reflection activity of self-compassion, will attribute their lessons learned as more internal locus of causality, personally controllable, stable, global, and universal, and less externally controllable when compared with individuals in a control group.

Figure 2

Proposed Relationship between Condition and Attributions of Lessons Learned.



Hypothesis 2b

Personal controllability and condition (self-compassion vs. control) will interact such that individuals in the self-compassion group will rate their personal control more consistently with their perceived locus of causality (i.e., be more realistic) than participants in the control group. That is, when lessons are perceived outside their personal control, they will be less likely to assume they should have known them. In other words, when lessons are perceived outside of their control, they will be less likely to assume that lesson resides within themselves, and instead more realistically attribute the lesson to others or the situation.

Figure 3

The Hypothesized Model in which Personal Controllability and Condition Interact to predict locus of causality.

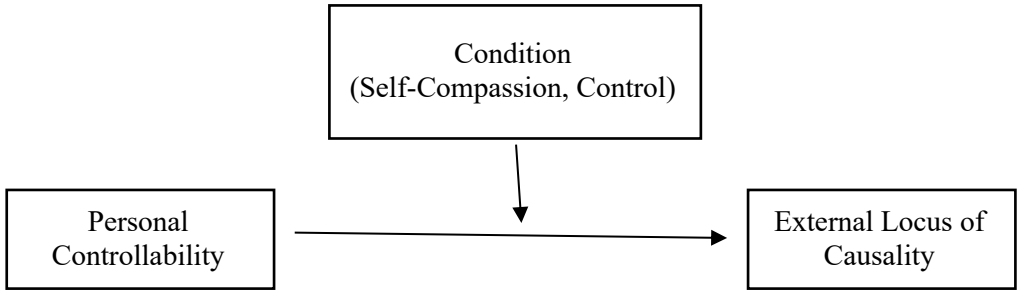
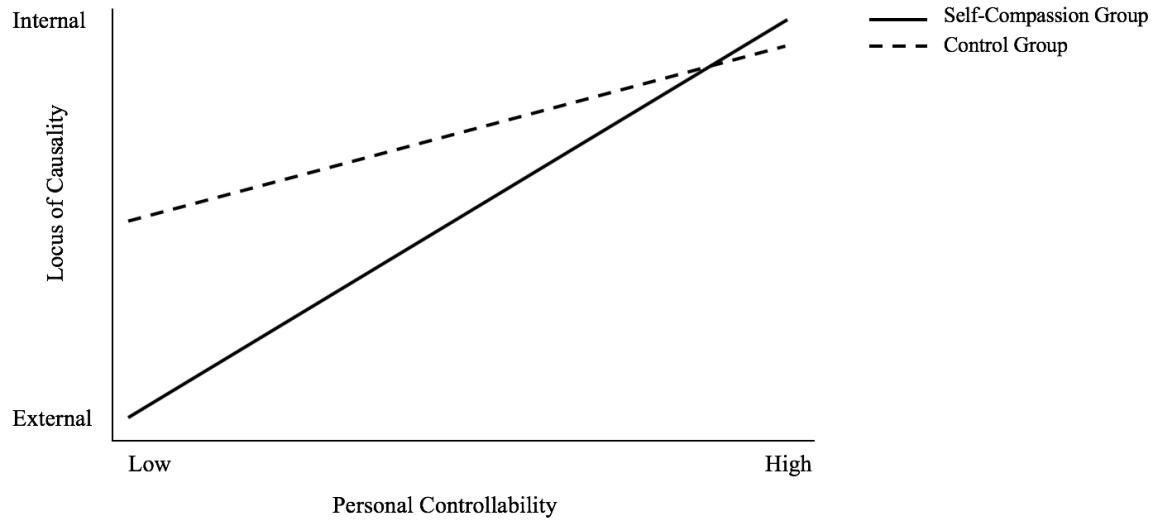


Figure 4

Hypothetical Results to Support Hypothesis 2b.



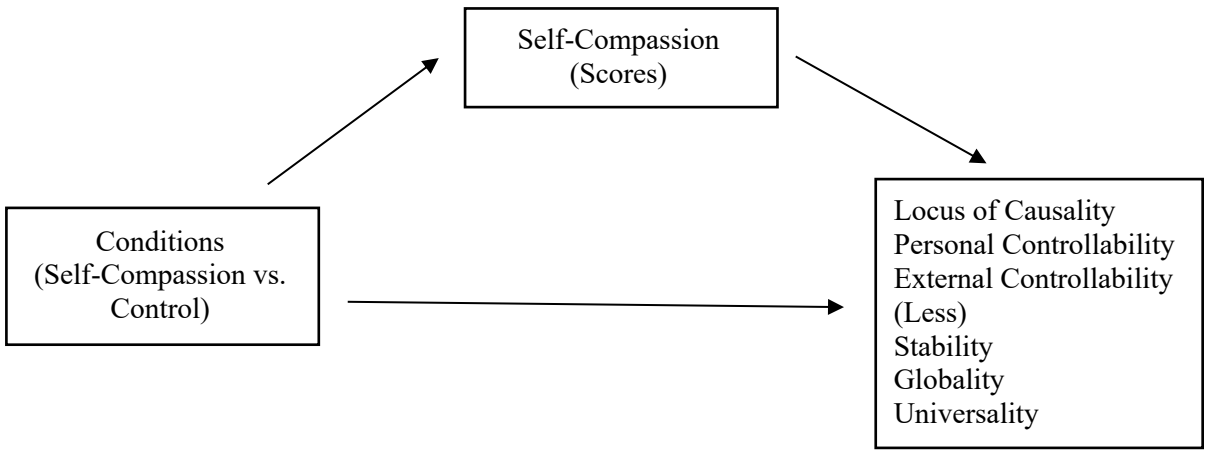
Note. This graph demonstrates that at low personal controllability, those in the self-compassion group will rate the locus of causality as external to a greater extent in comparison to the control group. At high personal controllability, it is expected that both the self-compassion and control group will rate the locus of causality as internal to a greater extent.

Hypothesis 3

Self-compassion will mediate the relationship between induced self-compassion and attributions of lessons learned.

Figure 5

Proposed mediation model of the indirect effect of induced self-compassion on attributions of lessons learned through self-compassion



CHAPTER II

Method

Sampling

Participants were recruited through Academic Prolific, a crowdsourcing internet marketplace that can be used to recruit subjects for research studies. Research has suggested that crowdsourcing tools tend to be adequate for psychological testing, and the quality of data obtained on Prolific Academic data is comparable or superior to other methods (Behrend, Sharek, Meade, & Wiebe, 2011; Palan & Schitter, 2018; Peer, Brandimarte, Samat, & Acquisti, 2017). Four preliminary screening criteria were applied for participant inclusion. Only participants that (a) lived in the United States, (b) were over the age of 22, and (c) had a ≥ 98% Prolific Academic approval rate, and (d) ≥ 15 previous submissions. For this study, participants were asked to complete an informed consent followed by a 20-minute (maximum) survey, which resulted in compensation of $3.34. Specifically, the survey included the manipulation and the accompanying questionnaire, as well as the dependent variables, demographic data questions, and additional screening questions.

Sample Size, Power, and Precision

The power analysis based on Cohen (1992) calculated using G*Power, indicated a sample of 354 participants represents an adequate sample size for the proposed study (Faul et al., 2009). Specifically, within G*Power, a one-tailed test and alpha level of .05 was selected and power was set to 95%. Additionally, per Cohen (1988), a conservative effect size of .15 was used. The resulting analysis suggested the analyses needed a total sample size of greater than 129 participants.

Participant Sample

A total of 402 participants were collected via Prolific Academic. Through the data cleaning process, 29 participants were removed. Specifically, seven participants were removed for being duplicate cases (e.g., duplicate IP address), and 22 participants were removed due to failure to satisfy a data quality check (e.g., did not select the correct item anchor). Explained in greater detail later, after assessing the data for missingness and checking relevant assumptions, the final sample resulted in 354 participants (170 for the self-compassion condition, and 184 for the control condition). The final sample was predominantly white (73.2%) and identified as a female (52.5%), age ranged from 22 to 67 years (M = 34; SD = 10.88). A full breakdown of demographic information is included in Table 1.

Ensuring Data Quality

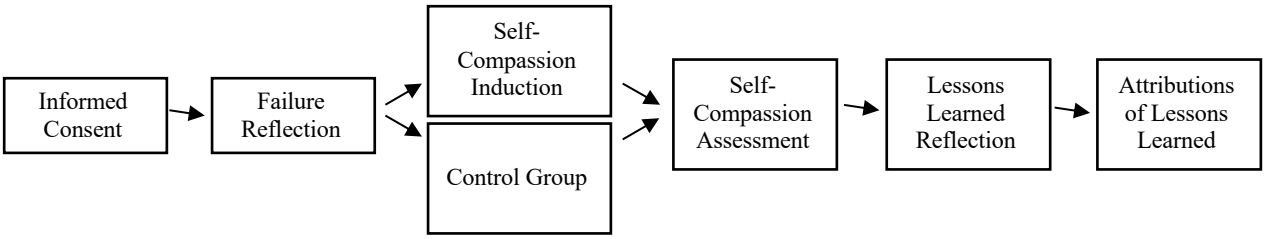
There were two data quality checks built into the survey. Data quality checks were included within the survey to increase confidence in appropriate participant selection and assess data integrity (Rodd, 2019). The first data quality check asked participants to confirm that they met the general requirements for the study. For example, while participants only received the survey link after agreeing they meet study criteria (i.e., location, and 98% approval), participants were again asked to self-report their age as part of the demographic section of the survey for verification. The second was built into the survey items and instructed participants to select a specified answer. Specifically, the use of two instructed response items (IRIs) were included within the body of the survey as recommended by Meade and Craig (2012) as an attention check of careless participant responding. The IRIs, indicated participants should give one specific response to the question (e.g., Respond with strongly agree for this item). Participants who did

not answer in alignment with the identified criteria or answer incorrectly to any of the IRIs were deleted from the sample prior to data analysis.

Procedure

Figure 6

Procedural Steps



After signing an informed consent, based on recommendations from Leary et al. (2007), participants were asked to "…. think about a failure event from your past that had an important impact on the person you are today" (See Appendix A). Participants were first instructed to indicate whether the event primarily involved (a) work; (b) school; (c) athletics; (d) my family; (e) my friends or social life; (f) my physical health; (g) a romantic relationship; or (g) other. Participants were then instructed to describe the event and provide details regarding what led up to the event (e.g., who was present, precisely what happened, and how they felt and behaved at the time). After writing about the event and answering these prompts, participants were randomly assigned to one of two experimental conditions: (a) self-compassion induction, or (b) a control condition (See Figure 6). Following manipulations, participants first completed a measure of self-compassion. Next, participants reflected on lessons learned from their failure. Specifically, participants were asked to write out the lessons they learned from their failure experience, and then choose the lesson that was most significant to them. Participants then selected one lesson and rated the attribution dimensions for that lesson (e.g., locus of causality, personal controllability, etc.).

Manipulations

Self-Compassion Induction

Participants in the self-compassion induction group responded to three prompts, as developed by Leary et al. (2007; See Appendix B). Specifically, after describing their failure experience based on the opening prompts, participants in the self-compassion condition responded to three prompts that were designed to lead them to think about their failure experience event in a self-compassionate manner. First, participants described ways in which others experienced a similar failure (common humanity element). Then they were instructed to write a paragraph expressing understanding, kindness, and concern towards themselves in the same way that they might express concern to a friend who had undergone a similar failure experience (self-kindness). Finally, they were prompted to describe their feelings about the failure event in an objective and unemotional fashion (mindful perspective).

Control Condition

After describing their failure experience, participants in the control condition skipped the self-compassion induction and proceeded directly to reflecting on their lessons learned.

Measures

Self-Compassion Scale

The self-compassion measure was assessed using the Self-Compassion Scale (SCS; Neff, 2003b; See Appendix C). The SCS consisted of 26 items, and six sub-scales, three positive and three negative, that assessed the dimensions of self-compassion (Neff, 2003b). The three positive subscales included: self-kindness, common humanity, and mindful acceptance, and the three opposite negative subscales included: self-judgment, isolation, and overidentification. Specifically, self-kindness is defined as being kind and understanding toward oneself rather than

harshly self-critical and is measured positively as self-kindness (e.g., “I’m kind to myself when I’m experiencing suffering”) and negatively as self-judgment (e.g., “When times are really difficult, I tend to be tough on myself”). Common humanity is defined as viewing one’s negative experiences as a normal part of the human condition and is measured positively as common humanity (e.g., “I try to see my failings as part of the human condition”) and negatively as isolation (e.g., “When I fail at something that’s important to me I tend to feel alone in my failure”). Mindful acceptance is defined as holding painful thoughts and feelings in mindful awareness rather than overidentifying with them and is measured positively as mindfulness (e.g., “When I fail at something important to me I try to keep things in perspective”), and negatively as overidentification (e.g., “When I’m feeling down I tend to obsess and fixate on everything that’s wrong”). The items were rated on a 5-point Likert scale ranging from 1 (*almost never*) to 5 (*almost always*). Neff (2016a; 2016b) found that the six components of the SCS are conceptually distinct but related. To compute a total self-compassion score, as recommended by Neff (2003b), the total self-compassion score is based on an average score of the positive scales and the average reversed-scored subscale means of the negative scales (self-judgment, isolation, and over-identification). Specifically, items describing uncompassionate behavior were reverse-coded to indicate their relative absence (Neff, 2016a; Neff, 2016b). Then, a grand mean of all six subscales was computed. Past research has demonstrated good internal consistency for the SCS (.90-.95 for overall scores and .75-.86 for sub-scale scores; Neff & McGehee, 2010).

Attributions of Lessons Learned

The most widely used state attribution measure is the revised Causal Dimension Scale (CDSII; McAuley et al.,1992). The CDSII assesses the dimensions of locus of causality, stability, personal controllability, and external controllability (See Appendix D). The CDSII is a

12-item self-report scale assessing four attribution dimensions: “locus of causality” (i.e., the degree to which the attribution is perceived as internal or external), “external controllability” (i.e., the degree to which other people have control over the attributed factor), “personal controllability” (i.e., the degree to which the individual has control over the attribution) and, “stability” (i.e., the degree to which the attribution is stable or variable over time). The question format for the CDSII was modified to match the study design, instead of the original prompt: “Think back to the specific reason or reasons for your performance that you have written above. The items below concern your impressions or opinions of this cause or causes of performance, is the cause of your performance something that…” participants responded to the question: “Think about the lessons you have written above. The items below concern your impressions or opinions of these lessons learned from your failure experience. In general, to what extent is the lesson you have learned from your failure experience something that…” Participants’ rated their attributions on a 9-point semantic differential scale 1 (external, unstable, or uncontrollable) to 9 (internal, stable, or controllable). Subscale scores range from 1 to 9, with higher values representing attributions that are more internal, stable, personally controllable, and externally controllable. In previous research, the CDSII has shown good factorial validity for the four-factor model within adult populations (McAuley et al., 1992). Internal consistencies in this sample were: $\alpha = .72$ for “locus of causality”, $\alpha = .81$ for “external controllability,” $\alpha = .75$ for “personal controllability,” and $\alpha = .80$ for “stability.” The CDSII does not assess the globality and universality of attributions; therefore, the measure was extended to capture the dimensions of globality and universality using subscales from Coffee and Rees’ (2008) measure of controllability, stability, globality, and universality (CGSU). Participants were asked to reflect on the *globality* of the lessons (e.g., the extent to which the lessons “affect a wide variety of situations for you”), the

universality of the lessons (e.g., “is a common lesson other people would learn from the same failure”). Participants’ responses were recorded on the same 9-point Likert-type scale as the causality, controllability, and stability dimensions.

CHAPTER III

Results

Data Preparation

Data Check and Cleaning

As discussed above, after the data cleaning process and removing participants whose responses failed to satisfy data quality checks, the final sample was 354 participants distributed across the two groups (170 for the self-compassion condition, and 184 for the control condition). The data was analyzed and managed for outliers and missingness. First, a visual analysis of data outliers was conducted, including histograms and box-whisker plots. Five outliers were identified as extreme, three on the personal controllability variable (participant, 5, 14, and 65), and two on the stability variable (participant 286 and 354). These outliers were winsorized; that is, they were replaced with the next highest score that is not an outlier (Field, 2003). Second, a missing analysis was conducted at the case-level and indicated no missingness above 5%. In the current data set, 5% of all cases indicated some missingness; 99.8% of the values had complete data. A visual inspection of missing value patterns indicated the general, or haphazard pattern as described by Enders (2010). Given that the predominance of the sample did not exceed 5% missingness, multiple imputation was not utilized (Schafer, 1999). Variable-level missingness was not an issue (no variable had more than 1% missing values). Parent (2012) recommends listwise deletion in situations in which there will be a negligible loss of power (e.g., losing only 5% of participants), and when conducting scale-level imputation would result in only a small boost in n; therefore, listwise deletion was used, which resulted in removing 19 cases who were found to have missing data, again, bringing the final sample to 354 (170 for the self-compassion condition, and 184 for the control condition).

Preliminary Analyses and Assumptions Testing

Prior to conducting the primary analyses, the data was assessed for relevant assumptions and reliability. After cleaning the data, preliminary analyses were conducted to test assumptions for the primary analyses. Evaluation of P-P plots indicated normality of residuals for self-compassion variables and external controllability. However, evaluation of P-P plots for measures of attributions indicate non-normality for locus of causality, personal controllability, stability, globality, and universality. Visual analyses of histograms indicated negatively skewed data for attribution measures of locus of causality, personal controllability, stability, globality, and universality. In other words, most responses to survey items were more internal, personally controllable, stable, global, and universal. While skewed data can be transformed to impose normality, response transformation can lead to additional challenges in data interpretation. In addition, evidence suggests linear regression tends to not be strongly affected by non-normality (Field, 2018). Therefore, data was not manipulated and will instead be addressed as a limitation. The assumption of linearity is assumed with a categorical independent variable (Hardy,1993). Table 2 provides the means, standard deviations, internal consistency estimates, and bivariate correlations for all variables. As shown in Table 2, both the self-compassion scale ($\alpha = .83$) and subscales had strong internal consistency. The reliability estimates for measures of attributions were mixed. Specifically, personal controllability ($\alpha = .83$), universality ($\alpha = .75$), and external controllability ($\alpha = .71$) indicated adequate reliability estimates. However, the scales for globality ($\alpha = .60$), stability ($\alpha = .61$), and locus of causality ($\alpha = .60$) show weak internal consistency. At the same time, the reliability estimates are consistent with the values McAuley et al. (1992) reported as acceptable in a validation study of the CDSII. Specifically, acceptable ranges were cited according to Nunnally (1978) as $\alpha = .60 - .92$ across the scales. However, as it has also

been argued that a reliability coefficient of .70 or higher is considered as acceptable (Cortina, 1993), but can weaken the ability to detect relationships when they exist (e.g., a Type II error), and will be addressed as a potential limitation and in the discussion.

Planned Analyses

Descriptives and Correlations

Descriptive statistics and correlations (See Table 2) were conducted for the predictor and outcome variables in the current study. A few relationships worth noting are the significant relationships between condition (Control = 0; Self-Compassion Induction = 1) and self-compassion ($r = .21$, $p < .001$). Including the self-compassion subscales of self-kindness ($r = .18$, $p < .001$), common humanity ($r = .14$, $p < .001$), and mindfulness ($r = .14$, $p < .001$). Additionally, condition is negatively correlated with the reverse coded self-compassion subscales: self-judgment ($r = -.20$, $p < .001$), isolation ($r = -.14$, $p < .001$), and over-identified ($r = -.19$, $p < .001$). As self-compassion is used as the outcome variable for hypothesis 1, this correlation may indicate the potential relationship between the self-compassion induction and self-compassion scores. Conversely, the lack of significance between condition (0 = Control; 1 = Self-Compassion Induction) and attributions of lessons learned is worth noting. Namely, for hypothesis 2, the attribution subscales are used as the outcome variables. Therefore, this lack of correlation suggests lack of support that the self-compassion induction is related to participant attributions. In regard to specific attribution dimensions, overall self-compassion score is correlated with personal controllability ($r = .15$, $p < .001$) as well as the positive and negative self-compassion subscales. These relationships will be further examined in the subsequent analyses and discussion. See Figure 7 and Figure 8 for a comparison of means for each outcome measure by condition.

At a high level, the positive and negative subscales of self-compassion were highly correlated. In alignment with Neff's (2003; 2016) validation studies, the subscales were expected to be highly intercorrelated as the main object of self-compassion scale is to measure self-compassion as a single overarching construct. For the attributions of lessons learned scales, the attribution scales of stability, globality, and universality were highly intercorrelated, in comparison to the other dimensions of attributions, this may be explained as these dimensions are somewhat different, in that they deal with the generalizability of the lesson learned. Conversely, the additional attribution dimensions were not highly correlated, this is consistent with the McAuley et al. (1992) validation study, as the attribution dimensions are treated as separated scales versus aggregated to one overall attribution score.

Hypothesis 1

Condition and Self-Compassion. In order to test hypothesis 1, that individuals in the self-compassion condition would have higher levels of self-compassion when compared with individuals in the control group, a multiple regression analysis was conducted. Specifically, self-compassion was regressed on the dummy coded conditions (0 = Control; 1 = Self-Compassion Induction). A significant regression equation was found $F(1, 353) = 16.26)$, $p < .001)$, $R^2 = .04$. The analysis showed that the self-compassion condition significantly predicted one's self-compassion ($\beta = .315$, $t(354) = 4.032$, $p < .001$; See Table 3. These results support the hypothesis that individuals who are asked to reflect on a failure and then engage in a reflection activity of self-compassion, will have higher levels of self-compassion (self-kindness, common humanity, and mindfulness) when compared to individuals in the control group.

A post-hoc analysis was conducted to explore the ability of the self-compassion induction to predict changes in the subscales of self-kindness, mindfulness, and common humanity by

regressing self-kindness, mindfulness, and common humanity on condition. Specifically, significant regression equations were found for self-kindness ($F(1, 353) = 12.37$), $p < .001$, $R^2 = .03$; See Table 18), common humanity ($F(1, 353) = 7.49$), $p < .005$), $R^2 = .02$: See Table 19), and mindfulness ($F(1, 353) = 7.43$), $p < .005$, $R^2 = .01$; See Table 20).

Hypothesis 2a

Condition and Attributions of Lessons Learned. In order to test the hypothesis (hypothesis 2a) that individuals in the self-compassion group would attribute their lessons learned as having a greater internal locus of causality, less external controllability, and more personal controllability, universality, globality, and stability, in comparison with individuals in the control group, a multiple regression analysis was conducted for each of the attribution dimensions.

Locus of Causality. A multiple regression was calculated to predict locus of causality based on condition. A non-significant regression equation was found $F(1,353) = .140)$, $p = .71$, $R^2 = .00$. The analysis showed that condition did not significantly predict one's locus of causality of lessons learned ($\beta = .08$, $t(354) = .38$, $p = .71$; See Table 4). These results fail to support the hypothesis that individuals who are asked to reflect on a failure and then engage in a reflection activity of self-compassion, will have higher levels of locus of causality when compared to individuals in the control group.

External Controllability. A multiple regression was calculated to predict external controllability based on condition. A non-significant regression equation was found $F(1,353)=.12)$, $p=.73$, $R^2 = .00$. The analysis showed that condition did not significantly predict external controllability of lessons learned ($\beta = -.09$, $t(354) = -.35$, $p=.73$; See Table 5). These results fail to support the hypothesis that individuals who are asked to reflect on a failure and

then engage in a reflection activity of self-compassion, will have higher levels of external controllability when compared to individuals in the control group.

Personal Controllability. A multiple regression was calculated to predict personal controllability based on condition. A non-significant regression equation was found $F(1,353) = .001$), $p = .98$, $R^2 = .002$. The analysis showed that condition did not significantly predict one's personal controllability of lessons learned ($\beta = .01$, $t(354) = .03$, $p = .98$; See Table 6). These results fail to support the hypothesis that individuals who are asked to reflect on a failure and then engage in a reflection activity of self-compassion, will have higher levels of personal controllability when compared to individuals in the control group.

Stability. A multiple regression was calculated to predict stability based on condition. A non-significant regression equation was found $F(1,353) = .67$, $p = .41$, $R^2 = .002$. The analysis showed that condition did not significantly predict one's stability of lessons learned ($\beta = -.14$, $t(354) = -.82$, $p = .41$; See Table 7). These results fail to support the hypothesis that individuals who are asked to reflect on a failure and then engage in a reflection activity of self-compassion will have higher levels of stability when compared to individuals in the control group.

Globality. A multiple regression was calculated to predict globality based on condition. A non-significant regression equation was found $F(1,353) = .48)$, $p = .49$, $R^2 = .001$. The analysis showed that condition did not significantly predict one's globality of lessons learned ($\beta = -.12$, $t(354) = -.69$, $p = .49$; See Table 8). These results fail to support the hypothesis that individuals who are asked to reflect on a failure and then engage in a reflection activity of self-compassion will have higher levels of globality when compared to individuals in the control group.

Universality. A multiple regression was calculated to predict universality based on condition. A non-significant regression equation was found $F(1,353) = 1.56)$, $p = .21$, $R^2 = .004$.

The analysis showed that condition did not significantly predict one's universality of lessons learned (β = -.456, $t(354)$ = -1.25, p =.21; See Table 9). These results fail to support the hypothesis that individuals who are asked to reflect on a failure and then engage in a reflection activity of self-compassion will have higher levels of universality when compared to individuals in the control group.

A post-hoc analysis was conducted to explore if condition would predict attributions of lessons learned when the measures of attributions were combined into one total scale. Specifically, a total mean score of attributions was calculated (See Figure 8), a regression analysis was run to explore whether or not condition (0 = Control; 1 = Self-Compassion Induction) had an impact on total mean score of attributions. Results were nonsignificant (R^2 = .00, p = .47).

Hypothesis 2b

In order to test the hypothesis 2b that the relationship between personal controllability and external locus of control would be moderated by condition, a moderated multiple regression analysis was conducted. Specifically, a moderated multiple regression analysis of condition on the relationship between personal controllability and external locus of causality was used to analyze interaction effects. In order to test the hypothesis that personal controllability and condition (self-compassion vs. control) will interact such that individuals in the self-compassion group will rate their personal control more consistently with their perceived locus of causality (i.e., be more realistic) than participants in the control group, a multiple regression was conducted. First, the predictor (personal controllability) was centered for interpretation. Condition was dummy-coded (0 = Control; 1 = Self-Compassion Induction) and an interaction term was created with the centered variables. While the overall model was found to be

significant (F(2, 351) = 29.11, p< .001, R^2 = .142) driven by the main effects, specifically, personal controllability, a significant moderation was not found (β = -0.50, t(354) = -.49, p = .62; See Table 10). Therefore, hypothesis 2b was not supported. The non-significant interaction is depicted in Figure 9.

A post-hoc moderated multiple regression analysis was conducted to explore if the relationship between personal controllability and external locus of control would be moderated by self-compassion scores. First, both the predictor (personal controllability) and the moderator (self-compassion scores) were centered for interpretation, and an interaction term was created with the centered variables. Results revealed a significant change (ΔR^2 =.02, p < .01) indicating that block 2 of the model accounted for significant incremental variance (F(3, 350) = 22.27, p < .001, R^2 = .16). The moderation was found to be significant (β = 1.64, t(354) = 2.76, p< .01; See Table 11), indicating the relationship between personal controllability and locus of causality were moderated by self-compassion scores. The interaction was interpreted by examining the simple slopes at three levels of self-compassion, one standard deviation below the mean (low), at the mean (medium), and one standard deviation above the mean (high). Results showed that when self-compassion scores were low, there was a significant positive relationship between personal controllability and locus of causality (β = .30, t(354) = 5.03, p< .001). At the mean value of self-compassion scores, there was a significant positive relationship between personal controllability and locus of causality (β = .42, t(354) = 8.04, p< .001), and finally, when self-compassion scores were high, there was also a significant positive relationship between personal controllability and locus of causality (β = .54, t(354) = 7.08, p< .001). The simple slopes are displayed in Figure 10. Thus, as predicted, the higher the self-compassion scores, the stronger the relationship.

Hypothesis 3

Self-Compassion and Attributions of Lessons Learned. To test hypothesis 3 that self-compassion would mediate the relationship between induced self-compassion and attributions of lessons learned, a series of six mediation analyses were run to determine if the self-compassion induction condition was impacting the attribution of lessons' learned scores through self-compassion scores. Stated differently, to what degree is the relationship between the self-compassion induction condition and lessons learned attribution scores mediated by self-compassion scores? To run the mediation, Preacher and Hayes PROCESS macro for SPSS was used to test the significance of the full mediation model (Preacher, Rucker, & Hayes, 2007). Specifically, this macro used logistic regression to calculate indirect effects and bootstrapping to estimate confidence intervals. In this analysis, mediation is significant if the 95% bias corrected confidence intervals (CI) for the indirect effect do not include zero (Preacher & Hayes, 2004). The mediation models presented in Figure 3 will be tested using PROCESS mediation model 4. In accounting for the six attributional dimensions, six mediation analyses were conducted.

Is the Relationship between Condition and Locus of Causality Mediated by Self-Compassion? Results based on 5000 bootstrapped samples are presented in Table 12, and although condition was significantly related to self-compassion (a path $\beta = .32$, $p < .00$), results for the remainder of the model did not align with the hypotheses. The full mediation of condition on locus of causality through self-compassion failed to reach significance ($\beta = .05$, 95% CI [-.047, .159]).

Is the Relationship between Condition and External Controllability Mediated by Self-Compassion? Results based on 5000 bootstrapped samples are presented in Table 13, and although condition was significantly related to self-compassion (a path $\beta = .32$, $p < .01$, and the b

path was statistically significant (b path β = .33, 95% CI [.004, .654]), that is that self-compassion was significantly related to external controllability, results for the remainder of the model did not align with the hypotheses. Specifically, the indirect effect of condition on external controllability through self-compassion failed to reach significance (β = .10, 95% CI [-.012, .242]) indicating that a mediational relationship was not present.

Is the Relationship between Condition and Personal Controllability Mediated by Self-Compassion? Results based on 5000 bootstrapped samples are presented in Table 14. Condition was significantly related to self-compassion (a path β = .32, p <.001), consistent with the hypothesis self-compassion was also found to be positively correlated with personal controllability (b path, β = .40, p <.05). Although there was a non-significant relationship between condition and personal controllability (c' path, β = -.12, p=.554) it has been argued that a direct effect of X on Y should not be a prerequisite to searching for evidence of indirect effects (Hayes, 2018; Rucker et al., 2011). There was a significant indirect effect of condition on personal controllability through self-compassion (β = .13, 95% CI [.026, .251]). This result indicates that participants had higher scores of personal controllability by 0.32 units, through the process of self-compassion. However, as the absence of a direct effect (c' path, β = -.12, p=.55) after controlling for a mediator should not lead to conclusions of 'full' mediation (Rucker et al., 2011), the exploration of this mediation will be further guided by theory in the discussion.

Is the Relationship between Condition and Stability Mediated by Self-Compassion? Results based on 5000 bootstrapped samples are presented in Table 15. Condition was significantly related to self-compassion (a path β = .32, p <.00). However, results for the remainder of the model did not align with the hypotheses. The indirect effect of condition on

stability through self-compassion failed to reach significance (β = -.06, 95% CI [-.155, .010]), indicating that a mediational relationship was not present.

Is the Relationship between Condition and Globality Mediated by Self-Compassion?

Results based on 5000 bootstrapped samples are presented in Table 16. Condition was significantly related to self-compassion (a path β = .32, p <.00). However, results for the remainder of the model did not align with the hypotheses. The indirect effect of condition on globality through self-compassion failed to reach significance (β = -.02, 95% CI [-.096, .048]), indicating that a mediational relationship was not present.

Is the Relationship between Condition and Universality Mediated by Self-Compassion?

Results based on 5000 bootstrapped samples are presented in Table 17. Condition was significantly related to self-compassion (a path β = .32, p <.00). However, results for the remainder of the model did not align with the hypotheses. The indirect effect of condition on universality through self-compassion failed to reach significance (β = -.06, 95% CI [-.153, .031]), indicating that a mediational relationship was not present.

In summary, the a paths for each mediation model was significant as is reflected in the correlation matrix (See Table 2) where condition was found to be significantly related to self-compassion. However, the direct effects of condition on attributions for each mediation model was non-significant. This is again reflected in the correlation matrix where condition was found to be non-significantly related to the attribution dimensions. As mentioned above, it has been argued that a direct effect of X on Y should not be a prerequisite to searching for evidence of indirect effects (Hayes, 2018; Rucker et al., 2011). Therefore, indirect effects of each mediation model were explored using Preacher and Hayes PROCESS macro for SPSS to test the significance of the full mediation model (Preacher et al., 2007). Only one of the mediational

relationships was found to be significant: personal controllability through self-compassion (β = .13, 95% CI [.026, .251]).

Failure and Emotions Reflection

An informal qualitative analysis of the emotions individuals reported feeling at the time of the failure was conducted. Specifically, shame was the most common reported emotion, followed by sadness, and a sense of disappointment in self. At a high level, the other emotions that were reported to be felt were: scared or fearful, devastation, anger, embarrassment, isolation, anxiety, and depression, as well as a sense of feeling awful, hopeless, guilty, betrayed, exhausted, surprised, and irresponsible. For a full breakdown of the emotions recorded see Figure 11. Although only suggestive, the reported felt emotions are in alignment with previous research that suggests that failures are often profoundly personal experiences that are wrought with negative emotions, of which, fear, self-criticism, self-judgment, emotional pain, and isolation can present as barriers to learning from failure (Cannon & Edmondson, 2005; Crocker & Park, 2004; Carmeli & Schaubroeck, 2008; Eskries-Winkler & Fishbach, 2019).

As will be discussed in more detail in the discussion section, negative emotions may interfere with an individual's ability to process information (Pekrun, 2014; Tyng, 2017). That is, one may not be able to learn from information that they have not attended to (Eskries-Winkler & Fishbach, 2019). At the same time, negative emotions may also help to direct attention and resources towards an event (Walker, 2017), indicating that negative emotions may also aid in the learning process. At a high level, previous research has suggested that those who express greater levels of self-compassion towards themselves may face fewer obstacles in moving beyond failure (Neff, 2008). An example of how self-compassion may do so is through the mindful awareness of one's emotions, as painful feelings are not avoided, but are instead approached with kindness,

and a sense of shared humanity (Neff, 2003a). Previous research has suggested that self-compassion may have an impact on emotional regulation (Diedrich et al., 2014; Neff, 2003a;), which in turn, has been suggested as having an impact on learning from failure (Shephard et al., 2011). In the theoretical implications section, I will further explore how some of the mentioned emotions may provide insight into why the attributions assessed were unrelated to self-compassion. Specifically, I will discuss why some of these emotions may negatively affect attributions, as well as emotions that are more likely to be the ones that can change attributions if self-compassion is induced, and finally, what emotions may be unlikely to change attributions after self-compassion.

CHAPTER IV

Discussion

The purpose of the current study was to explore the impact of induced self-compassion on lessons learned from a past failure experience. Previous research has explored how self-compassion may impact failure, however very little research has focused on empirically examining the impact of self-compassion on lessons learned from a past failure experience and the types of attributions people make about the lessons they learn from failure.

Summary of Findings

The results of this study supported the first hypothesis that participants who were asked to reflect on a failure and then engage in a reflection activity of self-compassion, would in turn, have higher levels of self-compassion (self-kindness, common humanity, and mindfulness) when compared with individuals in the control group. This finding suggests that self-compassion is something that can be induced and developed, as participants who were asked to reflect on a failure and then engage in a reflection activity of self-compassion, had higher levels of self-

compassion when compared with individuals in the control group. This finding is consistent with past research where self-compassion has also been shown to be effectively induced through a short-term writing intervention (Leary et al., 2007) and continued support that simple and relatively quick self-compassion writing inductions can raise the levels of an individual's self-compassion (Brienes & Chen, 2012; Dupasquier et al., 2020; Leary et al., 2007).

Hypothesis 2a explored whether participants in the self-compassion group would attribute their lessons learned as having a greater internal locus of causality, less external controllability, and more personal controllability, universality, globality, and stability, in comparison with individuals in the control group. Past research has suggested that self-compassion is positively correlated with the belief that failures are learning opportunities and part of life, and negatively correlated with the belief that failures are aversive and something that must be avoided (Miyagawa et al., 2019); however, much less was known about how, and even if, self-compassion may impact learning from failure. Therefore, above and beyond whether or not an individual learned from the failure, this study sought to understand the extent to which lessons learned are attributed as having an internal locus of causality, and the extent to which lessons learned are attributed as externally controllable, personally controllable, stable, global, and universal. The results did not support a relationship between condition and locus of causality, external controllability, personal controllability, universality, globality, and stability. This finding would suggest that whether or not an individual reflected on a past failure using the short-term self-compassion writing induction, lessons learned were no more likely to be internal, internally controllable, personally controllable, universal, global, or stable. This finding is further explored in the theoretical implications section.

Hypothesis 2b explored whether personal controllability and condition (self-compassion vs. control) would interact, such that individuals in the self-compassion group who attributed their lesson learned as being uncontrollable (low personal controllability), would also attribute their lesson as having an external locus of causality (i.e., be more realistic), in comparison with individuals in the control group. That is, when lessons were perceived outside their personal control, they would be less likely to assume they should have known them. Specifically, it was theorized that those in the self-compassion group, who rated their lesson learned as having low personal control, would be more likely to decouple themselves from the negative psychological experience, and in turn, be more likely to accurately see that their lesson learned was one in which had an external locus of causality. A significant moderation was not found. Although there was a relationship found between personal controllability and locus of causality in the expected direction, condition (self-compassion vs. control) did not have an impact on this relationship.

A post-hoc analysis revealed that the relationship between personal controllability and locus of causality were moderated by self-compassion scores. The moderation was found to be synergistic, that is, that the relationship between personal controllability and locus of causality was enhanced under self-compassion scores. At a high level, this finding suggests that when lessons were rated as having low personal control, self-compassion impacted the extent to which participants also rated their lesson as having an external locus of causality. Additionally, when lessons were rated as having high personal control, self-compassion impacted the extent to which participants also rated their lesson as having an internal locus of causality. However, it is also important to note that the post-hoc analysis may have been found to be significant because the continuous self-compassion scores are much more sensitive to actual self-compassion with respect to failure. Additionally, in alignment with learned helplessness theory (Abramson et al.,

1978) this finding suggests that when thinking about a participant's future, the individual may feel more hopeful as they accurately recognize the external locus of causality of their lesson learned, dependent on self-compassion scores.

Hypothesis 3 explored whether self-compassion would mediate the relationship between induced self-compassion and attributions of lessons learned (locus of causality, external controllability, personal controllability, stability, globality, and universality). This hypothesis contributed to understanding the impact of self-compassion on lessons learned from failure by exploring if condition (self-compassion vs. control) impacted the attributions of lessons learned through self-compassion scores. Results showed that out of the six attribution dimensions, self-compassion was found to only mediate the relationship between condition and personal controllability. Stated differently, this finding suggests that in comparison to the control group, participants in the self-compassion induction group rated their lessons learned as more personally controllable through self-compassion. Interestingly, there was no direct effect found between condition and personal controllability, only the mediation. Specifically, previous research has suggested that the absence of a direct effect after controlling for a mediator should not lead to conclusions of a 'full' mediation and should be guided by theory (Rucker et al., 2011). Although the indirect effect found was small, theoretically it may make sense that when self-compassion scores are accounted for, people with higher levels of self-compassion may hold a belief of increased personal controllability, because they are not entangled with negative thoughts, isolating their experiences from others, and treating themselves critically. Instead, they are embracing suffering with kindness and warmth, are emotionally stable, and are able to mindfully and realistically assess where they need to improve (Neff, 2003a; Neff, 2011). This finding is also in alignment with previous research that suggests that higher levels of self-compassion

increase self-improvement motivation (Breines & Chen, 2012). Additionally, previous research suggests there is a relationship between inducing self-compassion and a willingness to admit personal responsibility for a failure event (Leary et al., 2007). This finding will be further discussed in the theoretical implications section.

Theoretical Implications

Self-Compassion and Personal Controllability

The current study contributes to the literature that self-compassion may impact how failures are experienced in important ways (e.g., Costa & Pinto-Gouveia, 2013; Leary et al., 2007; Miyagawa et al., 2019; Neff et al., 2005; Zhang & Chen, 2016). Specifically, the significant indirect effect of condition on personal controllability through self-compassion suggests that self-compassion may increase the perceived controllability of one's lessons learned. That is, the extent to which an individual believes the lesson is something that they have control over and is impacted by self-compassion. This finding further contributes to the literature on self-compassion that may help to alleviate the concern that self-compassion could lead to complacency or shirking of responsibility (Breines & Chen, 2012; Leary et al., 2007; Neff, 2003a). As noted, previous research has suggested that higher levels of self-compassion increase self-improvement motivation and personal responsibility for a failure (Breines & Chen, 2012; Leary et al. 2007). Taken together, the finding that self-compassion may increase the perceived controllability of one's lessons learned suggests that self-compassion may increase adaptive beliefs about failure. Specifically, it was theorized, that self-compassion would have an impact on increasing the personal controllability of lessons learned, as previous research has suggested that reflecting on a failure in a self-compassionate way may allow participants to acknowledge that they were the kind of person who made mistakes, yet they did not feel badly about

something that is a common experience (Leary et al., 2007). It was theorized that self-compassion may impact the extent to which lessons learned were rated as personally controllable, as previous research has suggested that people with higher levels of self-compassion do not get entangled with negative thoughts, isolate their experiences from others, and treat themselves critically. Instead, through self-compassion, individuals are able to embrace suffering with kindness and warmth (Neff, 2011). Although only suggestive, self-compassion may be a mechanism that helps to address or overcome threats triggered by a past failure, and in turn, promote the personal controllability that individuals perceive over their lessons learned.

Self-Compassion and Learning from Failure

At the same time, it is important to acknowledge that self-compassion may not impact the lessons learned from failure in the ways that were theorized, as there was found to be no relationship between self-compassion and the locus of causality of lessons learned, the external controllability of lessons learned, as well as the stability, globality, and universality of lessons learned. A possible explanation as to why self-compassion may not have been found to have an impact on the attributions associated with one of the lessons learned, is that lessons may capture how an individual may want to prevent the occurrence of a similar failure in the future (Cannon, 1999). That is, above and beyond personal controllability, self-compassion may have no impact on the extent to which an individual could prevent a failure from happening in the future. Specifically, research on failure sense-making has suggested that recollected failures may be interpreted as experiences that people want to prevent from happening again (Cannon, 1999). This may suggest that if lessons learned are interpreted as impacting future outcomes, then it may help to explain why an individual would want to attribute their lesson learned as being more

internal, less external, more personally controllable, stable, global, and universal in order to increase the sense that failure is something that they could prevent from happening.

Additionally, findings from this study suggest that the intervention and measure of self-compassion were not strong enough to make an impact on the attributions that were measured in this study, therefore, it may be important for future research to explore how these emotions may impact attributions of lessons learned. Specifically, through an informal content analysis, participants in this study experienced the negative emotions Cannon and Edmondson (2005) described, including shame, fear, and isolation. And yet, across conditions, participants in the study cited their lessons learned as internal, external, stable, global, and universal to a similar extent. As previously discussed, negative emotions may have both a negative and a positive impact on learning (Pekrun, 2014; Tyng, 2017; Walker, 2017). Although not exhaustive, below I will explore how some of the mentioned emotions may provide insight into why the attributions assessed were unrelated to self-compassion. To do so, I will first discuss why some of these emotions may negatively affect attributions, as well as emotions that are more likely to be the ones that can change attributions if self-compassion is induced, and finally, what emotions may be unlikely to change attributions after self-compassion. Past research has suggested that shame affects the attributions made about the *causes* of failure to be externalized to a greater extent (Walker, 2017). As the most commonly reported emotion, shame will be discussed as the emotion that may have both, the most negative impact on attributions, and if self-compassion is induced, may change attributions the most. It is thought that out of the emotions listed, shame may negatively impact the attributions made about *lessons learned* to a greater extent, as shame may have caused an individual to want to avoid encountering the failure, or kept an individual from processing important information that could benefit learning (Eskries-Winkler & Fishbach,

2019; Johnson, 2012; Tyng et al., 2017). In turn, it is thought that shame may increase the extent to which lessons learned are attributed as having an external locus of causality. Additionally, as shame is conceptualized as a threat to one's global self, often causing one to call their whole self-worth into question (Tangney et al., 1996), it is thought that feelings of shame may also negatively impact attributions made through decreasing personal control and increasing globality (Turner & Husman, 2008). For example, this may look like an individual rating their lesson as one that impacts many situations (globality), while at the same time being a lesson, they feel they have little personal control over (personal controllability).

Out of the above listed emotions, it is thought that if induced, self-compassion may change the attributions made the most, as previous research has suggested that self-compassion is a mechanism that can reduce shame (Gilbert & Proctor, 2006; Johnson & O'Brien, 2013). More specifically, self-kindness may mitigate negative self-evaluation, seeing one's experience as common to others may lessen behavioral withdrawal, and mindful awareness of emotions may keep one from suppressing or avoiding the negative event (Johnson & O'Brien, 2013). Again, although self-compassion may not stop the individual from feeling shame, it may help in facing fewer obstacles in navigating shame. Additionally, it is thought that if induced, self-compassion would impact how anxiety, depression, fear, and isolation may impact attributions of lessons learned. Specifically, self-compassion has been suggested as positively impacting these emotions (Neff 2003a; Neff, 2005), however, research has not explored how these emotions may impact attributions of lessons learned. Therefore, this may be an important area for future research to explore.

Emotions such as guilt may not change attributions if self-compassion is induced, whereas shame may be seen as a global evaluation of self, guilt is thought of a more specific

evaluation towards one's behavior or actions (Karlsson & Sjoberg, 2009; Tangney et al., 1996), therefore self-compassion may not have an impact on how this emotion impacts attributions made. For example, whether or not self-compassion is induced, an individual may see their lesson learned as one that is about them (internal locus of causality), and as guilt may drive someone to act (Walker, 2017), an individual who feels guilt may be more likely to rate their lesson learned as something they can do something about (personal control). Moreover, research has suggested that self-compassion was negatively correlated with shame, but unrelated to guilt (Barnard & Curry, 2012). Additionally, emotions such as anger, betrayal, and surprise are thought to be more about another individual or a situation, therefore, self-compassion may be unlikely to change attributions as although self-compassion may help to manage oneself through difficult experiences, the aspect of having a feeling towards something other than oneself may impact attributions whether or not self-compassion is induced. For example, an individual may rate their lesson as external to a greater extent (external locus of causality). However, this may also be an important area for future research to explore.

Limitations and Future Research

While the findings from the current study provide support for some hypotheses, there are several limitations that must be noted. Although not exhaustive, the below limitations help to provide important areas for future research consideration. The first limitation of the current study is the low reliability of the attribution dimensions measure, as the measure did not have adequate reliability. Cronbach's alpha coefficients for the universality ($\alpha = .60$), stability ($\alpha = .61$), and locus of causality ($\alpha = .60$) scales failed to demonstrate adequate internal consistency, while globality ($\alpha = .75$), and external controllability ($\alpha = .72$) indicated moderate reliability estimates. Specifically, measurement error weakens the ability to detect a relationship between two

variables, which may have played a role in the weak relationship found between condition and attribution dimensions, and self-compassion and attribution dimensions (Shadish et al., 2002). One possible explanation for this is that the attribution measure subscales were reduced from three items each to two items for the sake of shortening the survey for participants. However, this may have contributed to the low reliability of the measure. Therefore, possible mitigations for future research include using the full three items to measure each dimension. Additionally, it is important to note that ceiling effects were observed for the measure of attribution dimensions, as respondents clustered near the highest score. Namely, the observed correlation in the range restricted sample may be lower than it would be if data from the entire possible range were analyzed (Shadish et al., 2002).

As previously noted, analyses indicated positively skewed data for all subscales of the attribution dimensions besides external controllability. That is, the measure of attribution dimensions of locus of causality, personal controllability, stability, universality, and globality, indicated that individuals scored higher on average (i.e., from a normal distribution) which may have restricted the range (e.g., a ceiling effect) reducing the ability to detect relationships that potentially were present. Specifically, the use of only one way of measuring the attribution dimensions (e.g., mono-method bias) may have caused individuals to rate similarly on all items. A lack of variance in this way may have increased the likelihood of a Type II error. Future studies should consider measuring lessons learned from failure in other ways, as well as utilizing measures beyond self-report.

Additionally, in regard to construct validity of the study, the intervention may have resulted in changes other than self-compassion. For example, asking the self-compassion induction questions may increase an individual's efficacy that they *can* have self-compassion for

themselves. Thus, the increase in self-compassion found may be an awareness that an individual has the capacity to be self-compassionate in the first place. Future research might be done to differentiate changes in self-compassion versus increases in one's efficacy for, or awareness of the concept.

To address the external validity of this study, it is important to look at how testing the relationship in other settings may hold. That is, testing the relationship in other settings, will help to expand evidence of external validity, to understand if study findings hold across different populations (Shadish et al., 2002). As noted, the positive impact of the self-compassion intervention on self-compassion has been demonstrated across a variety of samples. However, the failure attrition effects have only been tested in this study. The current study utilized a Prolific Academic sample. All participants had the option to self-select into the study based on the prompt and meeting the study criteria. While this study contributed to literature on empirically examining the impact of self-compassion on lessons learned from failure by utilizing an American sample, future studies could expand the testing to include other populations (e.g., different organization sectors, SES levels, non-Americans). Therefore, replicating the study across different samples will continue to build evidence for how self-compassion may impact learning from failure in different settings.

Additionally, the current study asked individuals to identify a failure that "had an important impact on the person you are today." Namely, an effect found with these types of failures may not hold if different types of failures were studied (Shadish et al., 2002). For example, previous research has suggested that the impact of self-compassion on project failures be examined empirically (Shephard & Cardon, 2009). Above and beyond project failures, the relationship tested in this study could be furthered by studying specific types of failures (e.g., entrepreneurial

failures, sport failures, or relationship failures). Finally, it is important to acknowledge that an effect found with one intervention variation might not hold with other variations of the intervention (Shadish et al., 2002). That is, the relationship should be tested across different types of self-compassion interventions as the current study uses the Leary et al. (2007) short self-compassion writing induction in order to induce self-compassion; whereas the relationship may be different if a longitudinal intervention was used, such as compassionate mind training (CMT; Gilbert & Irons, 2005; Gilbert & Procter, 2006).

Future Research

Measuring Learning from Failure

As previously mentioned, it is important that future research explore other ways that learning from failure may be measured in order to better understand if self-compassion has an impact on learning from failure. Namely, there may be other facets of learning from failure, beyond better understanding the nature of the lessons learned that self-compassion may impact. For example, in the context of work failures, Shephard et al. (2011) developed a learning from failure measure that includes both a project (e.g., I now realize the mistakes I made that led to the project's failure) and a personal (e.g., I am more willing to help others deal with their failures) dimension. Specifically, measuring learning from failure in this way may help to give insight into the impact of self-compassion on learning from work failures. As well, it may give insight into the impact of self-compassion on learning related to an individual's performance (e.g., the project dimension), and learning related to the individual's personal attributes (e.g., the personal dimension; Shephard et al., 2011). Additionally, future research could measure learning from failure using similar methods used in research by Eskries and Winkler (2019) in order to understand the impact of self-compassion on failure in the present moment. Stated differently,

future research may explore if self-compassion has an impact on learning from failure in buffering against the immediate effects of failure feedback. Specifically, Eskries and Winkler (2019) suggested that failure feedback undermined learning because it was ego threatening, as it caused participants to tune out and stop processing information. Namely, as self-compassion has been shown to buffer against ego reactivity (Neff & Vonk, 2009) it would be interesting to understand if self-compassion has an impact on learning after failure in the way Eskries and Winkler (2019) have operationalized it.

The Impact of a Self-Compassionate Mindset

Future research should further explore how self-compassion affects motivation beyond one's failure, that is, does engaging in a self-compassionate mindset initiate a chain-like reaction in regard to adapting and persisting beyond one's failures? Namely, an increased sense of personal controllability suggests that self-compassion may help an individual to see their failures as something they can tackle, seeing one's failures as though there is something, they can do about them. Specifically, future research should explore the extent to which these beliefs translate into action. For example, does being self-compassionate towards oneself lead to higher persistence? Previous research on persistence after failure has suggested that by focusing on accomplishing goals through an emphasis on progress and mastery, through effort, persistence may be increased (Dweck, 1986).

In order to demonstrate how future research may explore this, a growth mindset may be used as an example framework. Specifically, in times of failure, a growth mindset offers one the belief that one can continue to develop, at the same time, self-compassion offers a way of being towards oneself that is self-kind versus self-critical. Namely, how does focusing on accomplishing goals still with a focus on progress and mastery through effort, with the addition

of, self-kindness, mindfulness, and common humanity impact how individuals continue to apply effort and persist in the face of future challenges? Specifically, these elements may equip an individual to move beyond their failure experience, in turn, possibly accessing the motivation to try again more quickly. Moreover, as self-compassion offers an alternative to being self-critical, isolated, and over-identified, persisting beyond future challenges self-compassionately may allow for an increase in positive affect, and psychological well-being (Neff, 2004), thus possibly increasing the extent to which one is thriving in both work (Kleine et al., 2019), and life.

Self-Compassion as Limiting or Counter-Productive

To further increase the external validity of this study, it is important for future research to consider when self-compassion is most important, for example, for whom and under what conditions? Moreover, under what conditions may self-compassion be limiting or even counterproductive? Although there may be numerous cases when self-compassion may be limiting or even counterproductive, future research could explore how self-compassion may be counterproductive when individuals feel low compassion for others. That is, if an individual is able to feel compassion for their own struggles, and not do the same for others, it may be argued that this is counterproductive and self-serving. For example, previous research has suggested that self-interest can impair compassion, as this can coincide with a fear that compassion may be detrimental to self-interest (Robinson et al., 2016). Additionally, how may self-compassion be counterproductive when there is nothing to learn, or limited amounts of information to learn? Namely, in these contexts, it may be better for self-compassion to be conceptualized as a way of being towards oneself that increases well-being (MacBeth & Gumley, 2012; Marsh et al., 2018) during times of failure, instead of as a mechanism that may be used to address or overcome

barriers to learning from failure. As will be discussed in the next section, it is important to acknowledge when it may be better to move on and leave a failure behind.

When to Move On

It is important to acknowledge that the way forward may not always be through working through a failure, but rather through leaving it behind. Research on both mindfulness and rumination, suggest that observing, but letting go (e.g., not reacting) to one's experience may be beneficial (Frewen et al., 2008; van Randenborgh et al., 2010). The current study drew attention to the importance of understanding what an experience of failure may be like for someone in order to acknowledge the often-painful psychological experiences that can coincide with failure. The purpose of drawing attention to this was to acknowledge that these negative emotions can present as a barrier to learning from failure. However, above and beyond learning from failure, it is important to acknowledge that these negative emotions may present as a barrier to being able to even move beyond the experience. Although self-compassion has been conceptualized as a way to take "an understanding, nonjudgmental attitude toward one's inadequacies and failures, and recognize that one's own experience is part of the common human experience" (Neff, 2003b, p. 223), and as a way of mitigating many negative psychological reactions that can coincide with failure (e.g., isolation, anxiety, and depression). It is important to acknowledge that when revisiting an experience of failure keeps an individual stuck or from being able to move beyond it, it may be best to leave the experience behind, without carrying the lessons forward.

Specifically, parallels may be drawn between when it may better to leave a failure behind and previous research on rumination. Rumination involves "repetitive thinking about, and evaluation of, the self in a maladaptive effort to understand one's inadequacies and symptoms of distress" (Johnson & O'Brien, 2013, p. 943). Meta-analyses have shown a relationship between

ruminative thinking and symptoms of depression (Aldao et al., 2010; Rood et al., 2009). Specifically, rumination has been classified as having two distinct types (1) a helpful style characterized by thinking about what one can do about the situation in a concrete and specific way, and (2) an unhelpful, maladaptive style characterized by internalization and overgeneralization (Lavender & Watkins, 2004; Watkins & Teasdale, 2004; Watkins & Moulds, 2005a). Namely, when an individual ruminates about a failure in a way that internalizes what the experience of failure may mean about them, and in a way that overgeneralizes to what this means for other situations, research has shown that problem-solving ability is impaired and depressed mood can be increased (Watkins & Moulds, 2005a). However, dwelling on failures in a concrete and specific way, and reflecting on what one can do about the situation, does the opposite. Therefore, if an individual cannot assess what can be done about a failure in a concrete and specific way, it may be best to leave it behind, rather than the alternative of internalizing or overgeneralizing the experience. Future research can further contribute to this by better understanding the nuances of lessons learned, namely if lessons from a failure are focused on what an individual can do moving forward in a concrete and specific way (e.g., in alignment with helpful rumination) then it is presumed that it would be beneficial to carry them forward. Whereas, if lessons from a failure experience are internalized and overgeneralized negatively (e.g., in alignment with unhelpful rumination) then it is presumed that it would not be beneficial to carry these lessons forward.

Self-Compassion and The Role of "Other"

In the present study, participants who engaged with the self-compassion induction prompt were invited to self-compassionately reflect on a past failure experience (See Appendix B for prompts; Leary et al., 2007). Simply put, self-compassion was not a self-initiated process.

Therefore, engaging in the self-compassion prompts may have an implied sense of "other" that prompts self-reflection and reframing. Whether a sense of "other" is a person or a reflection prompt, it is important that future research continue to explore the role of "the other" in self-compassion. All previous work on self-compassion similarly includes an implied other to prompt self-compassion induction whether it be a reflection (e.g., Leary et al., 2007), training (e.g., Gilbert & Irons, 2005), or Neff's (2003a; Neff & Bluth, 2018) writings. Consequently, it begs the question how may acknowledging the role of "the other" in self-compassion impact organizations at the individual level, group level, or organizational level?

At the individual level this may be explored through the context of coaching. For example, coaches may invite their client into the possibility that they can be self-compassionate. Specifically, through having the client reflect on the self-compassion prompts the client may be able to increase their self-compassion levels when working through a failure or an adverse life event. Additionally, future research should explore if discussing the prompts raises levels of self-compassion. That is, instead of, or in addition to, reflecting on the self-compassion prompts, a coach and their client may be able to discuss the prompts together. For example, the coach could pose the self-compassion induction prompt as a question for the client to answer. Research has suggested that coaching helps to increase personal insight (Grant et al., 2009), therefore, it may be assumed that through discussing these prompts an individual may gain insight into how they can be more self-compassionate. Similarly, the role of the other in the process of being self-compassionate may take place through mentorship (e.g., Solomon & Barden, 2016). For example, the mentor may share with their mentee how they have practiced self-compassion using the Leary et al. (2007) prompts. In focusing on the mentee's development, the mentor may discuss how they have navigated past adverse events in a self-compassionate way. Alternatively,

in thinking how the mentor may have not navigated past adverse events self-compassionately, the mentor may discuss how being self-compassionate may have changed things for them. In turn, prompting the mentee to engage in a similar process of reflection through discussing each of the self-compassion prompts.

At the team and organizational level, norms for self-compassion may be established. For example, research has shown that in sport, individuals may be more likely to engage in self-compassion if they perceive others around them to be self-compassionate (Crozier et al., 2019). Translated to the context of an organization, this may look like managers encouraging members of their team to be self-compassionate when faced with adversity, in order to make it normative to be self-compassionate in the team environment. Moreover, doing so, may trigger self-compassionate behaviors at an organizational level. Specifically, it is thought that a climate for self-compassion may be developed through manager behaviors of self-compassion. For example, a manager may translate the Leary et al. (2007) prompts into action through outwardly discussing ways in which other people also experienced failures that are like the ones they have experienced (common humanity), expressing understanding, kindness, and concerns towards themself for what they have experienced (self-kindness), and describing what they felt about the event in an objective fashion (mindfulness; Leary et al., 2007). Ultimately, prompting employees into being self-compassionate, as employees often perceive management values based on manager behavior and may make attributions to align with the perceived values (Schneider et al., 1994). Even more so, as the concepts of climate and culture at both the organizational and team level are closely intertwined (Schneider et al., 1994; Reichers & Schneider, 1990), it may benefit leaders to look at how a team climate for self-compassion may attribute to the organizational

culture as a whole. For example, if numerous teams within an organization work towards a climate of self-compassion they may help to lay the groundwork to a culture of self-compassion.

Additionally, future research should explore characteristics that may be required of "the other" to make the prompting of self-compassion more effective. For example, research has suggested that it would be important to cultivate an atmosphere of psychological safety, whether in the realm of coaching, mentorship, or at the team level, it is important that the individual who is being prompted feel that it is truly safe to identify and reveal their failures (Cannon & Edmonson, 2005). To further trigger how self-compassion is continued to be passed on it may also be important that, not only are individuals offering self-compassion to themselves, but that they are in turn, offering compassion to others, and prompting those around them to practice self-compassion. Finally, in implementing the prompting of self-compassion, it may be important to assess both the individual and system readiness for change, in order to best understand how to manage the change (Prochaska & Norcross, 2001; Weick & Quinn, 1999).

Practical Implications

Findings from this study support previous research from numerous experimental studies that have demonstrated that self-compassion is a skill that can be acquired (Ferrari et al., 2019). For example, Compassionate Mind Training (CMT; Gilbert & Irons, 2005; Gilbert & Procter, 2006), and Mindful Self-Compassion (MSC; Neff & Germer, 2013), are interventions that have been shown to be associated with increases in self-compassion. Moreover, as used in this study, the Leary et al., (2007) short self-compassion induction reflection can be used to induce self-compassion in a relatively short amount of time. For instance, the short self-compassion induction reflection may be used to help individuals establish a self-compassion practice. That is,

individuals may take time to reflect on both, everyday life struggles, and substantial failures, in a self-compassionate way in order to help induce self-compassion.

In the organizational context, the use of Leary et al.'s (2007) short self-compassion induction may be used to induce self-compassion. For example, coaches may use this as a tool with their clients to induce self-compassion in a short amount of time. Specifically, if a coach is working with a client who is working through an adverse life event or a failure, it may be beneficial to have the individual reflect in this way. Findings from this study and previous research suggest that in doing so, an individual may be able to take greater personal responsibility for the event and identify that which they have control over, without being bogged down by the negative emotions that may have coincided with the experience. Moreover, this tool may be further used in the context of training. For example, if an organization wants to encourage employees to continue to be innovative and learn, failure may be inevitable (Cannon & Edmondson, 2005). Therefore, it may be important that an organization has a process in place in order to help people at an individual level manage failure. Moreover, it may be important that employees are given a concrete tool to help manage themselves in moments of adversity and failure. Moreover, although findings from this study suggest that the self-compassion writing intervention (Leary et al. 2007) may not have an impact on the extent to which attributions are rated with the CDSII (McAuley et al., 1992), and therefore may not be interpreted together. Individuals may still use this measure separately as a way to capture the most important lessons learned in their own words, and then rate this lesson on six different attributional dimensions (locus of causality, external controllability, personal controllability, stability, globality, and universality). In doing so, organizations may be able to use this as a practical tool that longitudinally collects information on lessons learned from failures in the organization.

Additionally, Shepherd and Cardon (2009) suggest that learning from failure may also be measured by the accuracy of causal attributions organizational members make for the failure. That is, organizations may use this measure in the original intended form to capture the causes of failure (McAuley et al., 1992), as well as to gain more information about the nature of lessons being learned.

Conclusion

"You may encounter many defeats but you must not be defeated…In fact, the encountering may be the very experience which creates the vitality and the power to endure"

—Maya Angelou, 1969

Through exploring the impact of self-compassion on lessons learned from a past failure experience, the findings from the current study offer a process by which one may encounter their failures through turning towards their experience with self-kindness and warmth, emotional stability, and the capacity to see their experience in the context of shared human fallibility. For the sake of not only encountering our own failures in this way, but for the possibility of building up individuals who may do the same. Moreover, for the sake of experiencing failure in a way that inspires those around us to fail similarly; to learn lessons that although may be painful to realize, better our communities and those around us. And ultimately, for the sake of always being willing to try again, with newfound knowledge that we can now do better.

References

Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, *30*(2), 217-237.

Abramson, L. Y., Seligman, M. E., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology*, *87*(1), 49-74.

Aguinis, H. (2004). *Regression analysis for categorical moderators.* Guilford Press.

Angelou, M. (1993). *I know why the caged bird sings*. 1969. *New York: Bantam*.

Arch, J. J., Landy, L. N., Schneider, R. L., Koban, L., & Andrews-Hanna, J. R. (2018). Self-compassion induction enhances recovery from social stressors: Comparing adults with social anxiety disorder and healthy controls. *Anxiety, Stress and Coping*, *31*(5), 594-609. https://doi.org/10.1080/10615806.2018.1504033

Barnard, L. K., & Curry, J. F. (2011). Self-Compassion: Conceptualizations, correlates, & interventions. *Review of General Psychology*, *15*(4), 289-303. https://doi.org/10.1037/a0025754

Baumard, P., & Starbuck, W. H. (2005). Learning from failures: Why it may not happen. *Long Range Planning*, *38*(3), 281-298. https://doi.org/10.1016/j.lrp.2005.03.004

Bluth, K., & Neff, K. D. (2018). New frontiers in understanding the benefits of self-compassion. *Self and Identity*, *17*(6), 605–608. https://doi.org/10.1080/15298868.2018.1508494

Brodar, K. E., Crosskey, L. B., & Thompson, R. J. (2015). The relationship of self-compassion with perfectionistic self-presentation, perceived forgiveness, and perceived social support in an undergraduate Christian community. *Journal of Psychology and Theology*, *43*(4), 231-242. https://doi.org/10.1177/009164711504300401

Cannon, D. R. (1999). Cause or control? The temporal dimension in failure sense-making. *The*

Journal of Applied Behavioral Science, *35*(4), 416-438.

Cannon, M. D., & Edmondson, A. C. (2005). Failing to learn and learning to fail (intelligently): How great organizations put failure to work to innovate and improve. *Long Range Planning*, *38*(3), 299-319. https://doi.org/10.1016/j.lrp.2005.04.005

Carmeli, A. (2007). Social capital, psychological safety and learning behaviours from failure in organisations. *Long Range Planning*, *40*(1), 30-44. https://doi.org/10.1016/j.lrp.2006.12.002

Carmeli, A., & Schaubroeck, J. (2008). Organisational crisis-preparedness: The importance of learning from failures. *Long Range Planning*, *41*(2), 177-196. https://doi.org/10.1016/j.lrp.2008.01.001

Coffee, P., & Rees, T. (2008). Main and interactive effects of controllability and generalisability attributions upon self-efficacy. *Psychology of Sport and Exercise*, *9*(6), 775-785. https://doi.org/10.1016/j.psychsport.2007.12.002

Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of applied psychology*, *78*(1), 98-104.

Costa, J., & Pinto-Gouveia, J. (2013). Experiential avoidance and self-compassion in chronic pain. *Journal of Applied Social Psychology*, *43*(8), 1578–1591. https://doi.org/10.1111/jasp.12107

Crocker, J., & Park, L. E. (2004). The costly pursuit of self-esteem. *Psychological Bulletin*, *130*(3), 392-414. https://doi.org/10.1037/0033-2909.130.3.392

Crozier, A. J., Mosewich, A. D., & Ferguson, L. J. (2019). The company we keep: Exploring the relationship between perceived teammate self-compassion and athlete self-compassion. *Psychology of Sport and Exercise*, *40*, 152-155.

DeSimone, J. A., Harms, P. D., & DeSimone, A. J. (2015). Best practice recommendations for data screening. *Journal of Organizational Behavior*, *36*(2), 171-181.

de Souza, L. K., & Hutz, C. S. (2016). Adaptation of the self-compassion scale for use in Brazil: evidences of construct validity. *Temas em Psicologia*, *24*(1), 159-172.

Diedrich, A., Grant, M., Hofmann, S. G., Hiller, W., & Berking, M. (2014). Self-compassion as an emotion regulation strategy in major depressive disorder. *Behaviour Research and Therapy*, *58*, 43-51

Dupasquier, J. R., Kelly, A. C., Moscovitch, D. A., & Vidovic, V. (2020). Cultivating self-compassion promotes disclosure of experiences that threaten self-esteem. *Cognitive Therapy and Research*, *44*(1), 108-119.

Dweck, C. S. (1986). Motivational processes affecting learning. *American psychologist*, *41*(10), 1040- 1048.

Dweck, C. S. (2006). *Mindset: The new psychology of success*. New York, NY: Random House.

Enders, C. K. (2010). *Applied missing data analysis.* New York, NY: Guilford Press.

Eskreis-Winkler, L., & Fishbach, A. (2019). Not learning from failure—the greatest failure of all. *Psychological Science*, *30*(12), 1733-1744. https://doi.org/10.1177/0956797619881133

Exline, J. J., Wilt, J. A., Stauner, N., Harriott, V. A., & Saritoprak, S. N. (2017). Self-forgiveness and religious/spiritual struggles. In L. Woodwyatt, E. L., Worthington, M. Wenzel, & B. Griffin (Eds.) In *handbook of the psychology of self-forgiveness* (pp. 131-145). Springer, Cham.

Ferrari, M., Hunt, C., Harrysunker, A., Abbott, M. J., Beath, A. P., & Einstein, D. A. (2019). Self-compassion interventions and psychosocial outcomes: A meta-analysis of

RCTs. *Mindfulness*, *10*(8), 1455-1473.

Frewen, P. A., Evans, E. M., Maraj, N., Dozois, D. J., & Partridge, K. (2008). Letting go: Mindfulness and negative automatic thinking. *Cognitive therapy and research*, *32*(6), 758-774.

Grant, A. M., Curtayne, L., & Burton, G. (2009). Executive coaching enhances goal attainment, resilience and workplace well-being: A randomized controlled study. *The Journal of Positive Psychology*, *4*(5), 396-407.

Garcia-Campayo, J., Navarro-Gil, M., Andrés, E., Montero-Marin, J., López-Artal, L., & Demarzo, M. M. P. (2014). Validation of the Spanish versions of the long (26 items) and short (12 items) forms of the Self-Compassion Scale (SCS). *Health and Quality of Life Outcomes*, *12*(1), 1-9.

Ghorbani, N., Watson, P. J., Chen, Z., & Norballa, F. (2012). Self-compassion in Iranian Muslims: Relationships with integrative self-knowledge, mental health, and religious orientation. *International Journal for the Psychology of Religion*, *22*(2), 106-118.

Gilbert, P., & Procter, S. (2006). Compassionate mind training for people with high shame and self-criticism: Overview and pilot study of a group therapy approach. *Clinical Psychology & Psychotherapy: An International Journal of Theory & Practice*, *13*(6), 353-379

Gilbert, P., & Irons, C. (2005). Focused therapies and compassionate mind training for shame and self-attacking. *Compassion: Conceptualizations, Research and Use in Psychotherapy*, 263-325.

Hardy, M. A. (1993). *Regression with dummy variables* (No. 93). Sage.

Harvey, P., Madison, K., Martinko, M., Crook, T. R., & Crook, T. A. (2014). Attribution theory

in the organizational sciences: The road traveled and the path ahead. *Academy of Management Perspectives*, *28*(2), 128-146. https://doi.org/10.5465/amp.2012.0175

Heider, F. (1958). *The psychology of interpersonal relations*. John Wiley & Sons, Inc.

Homsma, G. J., Van Dyck, C., De Gilder, D., Koopman, P. L., & Elfring, T. (2009). Learning from error: The influence of error incident characteristics. *Journal of Business Research*, *62*(1), 115-122.

Johnson, D. E. (2012). Considering shame and its implications for student learning. *College Student Journal*, *46*(1), 3-17.

Johnson, E. A., & O'Brien, K. A. (2013). Self-compassion soothes the savage ego-threat system: Effects on negative affect, shame, rumination, and depressive symptoms. *Journal of Social and Clinical Psychology*, *32*(9), 939-963.

Karlsson, G., & Sjöberg, L. G. (2009). The experiences of guilt and shame: A phenomenological–psychological study. *Human Studies*, *32*(3), 335-355.

Kelley, H. H., & Michela, J. L. (1980). Attribution theory and research. *Annual Review of Psychology*, *31*(1), 457-501. https://doi.org/10.1146/annurev.ps.31.020180.002325

Kernis, M. H. (2003). Toward a conceptualization of optimal self-esteem. *Psychological Inquiry, 14*(1)*,* 1-26. doi:10.1207/S15327965PLI1401_01

Kirschner, H., Kuyken, W., Wright, K., Roberts, H., Brejcha, C., & Karl, A. (2019). Soothing your heart and feeling connected: a new experimental paradigm to study the benefits of self-compassion. *Clinical Psychological Science, 7*(3), 545-565.

Kleine, A. K., Rudolph, C. W., & Zacher, H. (2019). Thriving at work: A meta-analysis. *Journal of Organizational Behavior*, *40*(9-10), 973-999.

Kleinig, J. (2012). Framing Failure. *Substance Use & Misuse*, *47*(13-14), 1366-1372.

Kotsou, I., & Leys, C. (2016). Self-Compassion Scale (SCS): Psychometric properties of the French translation and its relations with psychological well-being, affect and depression. *PloS one*, *11*(4).

Lavender, A., & Watkins, E. (2004). Rumination and future thinking in depression. *British Journal of Clinical Psychology*, *43*(2), 129-142.

Leary, M. R., Tate, E. B., Adams, C. E., Allen, A. B., & Hancock, J. (2007). Self-compassion and reactions to unpleasant self-relevant events: The implications of treating oneself kindly. *Journal of Personality and Social Psychology*, *92*(5), 887-904. https://doi.org/10.1037/0022-3514.92.5.887

MacBeth, A., & Gumley, A. (2012). MacBeth , A ., and Gumley, A. (2012) Exploring compassion: a meta-analysis of the association between self-compassion and psychopathology, *32*(6), 545-552. https://doi.org/10.1007/s00256-008-0605-6

Mantzios, M., Wilson, J. C., & Giannou, K. (2015). Psychometric properties of the Greek versions of the self-compassion and mindful attention and awareness scales. *Mindfulness*, *6*(1), 123-132.

Marsh, I. C., Chan, S. W., & MacBeth, A. (2018). Self-compassion and psychological distress in adolescents—a meta-analysis. *Mindfulness*, *9*(4), 1011-1027.

McCall, M. W. (1998). *High flyers: Developing the next generation of leaders*. Harvard Business Press.

McCall Jr, M. W. (2010). Recasting leadership development. *Industrial and Organizational Psychology*, *3*(1), 3-19.

McAuley, E., Duncan, T. E., & Russell, D. W. (1992). Measuring Causal Attributions: The Revised Causal Dimension Scale (CDSII). *Personality and Social Psychology Bulletin*,

18(5), 566-573. https://doi.org/10.1177/0146167292185006

McCall, Morgan, W., Lombardo, M. M., & Morrison, A. M. (1988). *Lessons of experience: How successful executives develop on the job*. Simon and Schuster.

Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological Methods*, *17*(3), 437–455. https://doi.org/10.1037/a0028085

Mills, A., Gilbert, P., Bellew, R., McEwan, K., & Gale, C. (2007). Paranoid beliefs and self-criticism in students. *Clinical Psychology & Psychotherapy*, *14*(5), 358-364.

Miyagawa, Y., Niiya, Y., & Taniguchi, J. (2019). When life gives you lemons, make lemonade: Self-compassion increases adaptive beliefs about failure. *Journal of Happiness Studies*, https://doi.org/10.1007/s10902-019-00172-0

Miyagawa, Y., & Taniguchi, J. (2020). Self-compassion and time perception of past negative events. *Mindfulness*, *11*(3), 746-755. https://doi.org/10.1007/s12671-019-01293-6

Neff, K. (2003). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and Identity*, *2*(2), 85-101.

Neff, K. D. (2003). The Development and Validation of a Scale to Measure Self-Compassion. *Self and Identity*, *2*(3), 223-250. https://doi.org/10.1080/15298860390209035

Neff, K. (2004). Self-compassion and psychological well-being. *Constructivism in the Human Sciences*, *9*(2), 27-37.

Neff, K. D. (2008). *Self-compassion: Moving beyond the pitfalls of a separate self-concept.* In H. A. Wayment & J. J. Bauer (Eds.), *Decade of behavior. Transcending self-interest: Psychological explorations of the quiet ego* (p. 95–105). American Psychological Association. https://doi.org/10.1037/11771-009

Neff, K. D. (2016). Does self-compassion entail reduced self-judgment, isolation, and over-identification? A response to Muris, Otgaar, and Petrocchi (2016). *Mindfulness*, *7*(3), 791-797.

Neff, K. D. (2016). The self-compassion scale is a valid and theoretically coherent measure of self-compassion. *Mindfulness*, *7*(1), 264-274.

Neff, K. D., & Germer, C. K. (2013). A pilot study and randomized controlled trial of the mindful self-compassion program. *Journal of Clinical Psychology*, *69*(1), 28-44.

Neff, K. D., Hsieh, Y. P., & Dejitterat, K. (2005). Self-compassion, achievement goals, and coping with academic failure. *Self and Identity*, *4*(3), 263-287. https://doi.org/10.1080/13576500444000317

Neff, K. D., Kirkpatrick, K. L., & Rude, S. S. (2007). Self-compassion and adaptive psychological functioning. *Journal of Research in Personality*, *41*(1), 139–154. https://doi.org/10.1016/j.jrp.2006.03.004

Neff, K. D., & Vonk, R. (2009). Self-compassion versus global self-esteem: Two different ways of relating to oneself. *Journal of Personality*, *77*(1), 23–50. https://doi.org/10.1111/j.1467-6494.2008.00537.x

Newton, N. A., Khanna, C., & Thompson, J. (2008). Workplace failure: Mastering the last taboo. *Consulting Psychology Journal: Practice and Research*, *60*(3), 227-245.

Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.

Parent, M. C. (2013). Handling item-level missing data: Simpler is just as good. *The Counseling Psychologist*, *41*(4), 568-600.

Pekrun, R. (2014). Emotions and learning. *Educational Practices Series*, *24*, 2-31.

Pennebaker, J. W., Colder, M., & Sharp, L. K. (1990). Accelerating the coping process. *Journal of Personality and Social Psychology*, *58*(3), 528-537.

Pennebaker, J. W. (2018). Expressive writing in psychological science. *Perspectives on Psychological Science*, *13*(2), 226-229.

Petrocchi, N., Ottaviani, C., & Couyoumdjian, A. (2014). Dimensionality of self-compassion: translation and construct validation of the self-compassion scale in an Italian sample. *Journal of Mental Health*, *23*(2), 72-77.

Pontefract, D. (2018, September 16). The foolishness of fail fast, fail often. Retrieved August 06, 2020, from https://www.forbes.com/sites/danpontefract/2018/09/15/the-foolishness-of-fail-fast-fail-often/

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, *36*(4), 717-731.

Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, *42*(1), 185-227.

Prochaska, J. O., & Norcross, J. C. (2001). Stages of change. *Psychotherapy: Theory, Research, Practice, Training, 38*(4), 443-448.

Reichers, A. E., & Schneider, B. (1990). Climate and culture: An evolution of constructs. *Organizational Climate and Culture*, *1*, 5-39.

Robinson, K. J., Mayer, S., Allen, A. B., Terry, M., Chilton, A., & Leary, M. R. (2016). Resisting self-compassion: Why are some people opposed to being kind to themselves? *Self and Identity*, *15*(5), 505–524. https://doi.org/10.1080/15298868.2016.1160952

Rodd, J. (2019). How to maintain data quality when you can't see your participants. *Association for Psychological Science Observer*, *32*(3).

Roeser, R. W., & Pinela, C. (2014). Mindfulness and compassion training in adolescence: A developmental contemplative science perspective. *New Directions for Youth Development*, *2014*(142), 9-30.

Rood, L., Roelofs, J., Bögels, S. M., Nolen-Hoeksema, S., & Schouten, E. (2009). The influence of emotion-focused rumination and distraction on depressive symptoms in non-clinical youth: A meta-analytic review. *Clinical Psychology Review*, *29*(7), 607-616.

Rucker, D. D., Preacher, K. J., Tormala, Z. L., & Petty, R. E. (2011). Mediation analysis in social psychology: Current practices and new recommendations. *Social and Personality Psychology Compass*, *5*(6), 359-371.

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

Schlomer, G. L., Bauman, S., & Card, N. A. (2010). Best practices for missing data management in counseling psychology. *Journal of Counseling Psychology*, *57*(1), 1-10.

Schneider, B., Gunnarson, S. K., & Niles-Jolly, K. (1994). Creating the climate and culture of success. *Organizational Dynamics*, *23*, 17-29.

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference.* Boston, MA: Houghton-Mifflin.

Shepherd, D. A., & Cardon, M. S. (2009). Negative emotional reactions to project failure and the self-compassion to learn from the experience. *Journal of Management Studies*, *46*(6), 923-949. https://doi.org/10.1111/j.1467-6486.2009.00821.x

Shepherd, D. A., Patzelt, H., & Wolfe, M. (2014). Moving forward from project failure:

Negative emotions, affective commitment, and learning from the experience. *A Psychological Approach to Entrepreneurship: Selected Essays of Dean A. Shepherd*, *54*(6), 546-576. https://doi.org/10.4337/9781783479801.00039

Sisemore, T. A., Arbuckle, M., Killian, M., Mortellaro, E., Swanson, M., Fisher, R., & McGinnis, J. (2011). Grace and Christian Psychology-Part 1: Preliminary measurement, relationships, and implications for practice. *Edification: The Transdisciplinary Journal of Christian Psychology*, *4*(2), 64-72.

Solomon, C., & Barden, S. M. (2016). Self-compassion: A mentorship framework for counselor educator mothers. *Counselor Education and Supervision*, *55*(2), 137-149.

Tafarodi, R. W., & Swann Jr, W. B. (1995). Self-linking and self-competence as dimensions of global self-esteem: initial validation of a measure. *Journal of Personality Assessment*, *65*(2), 322-342.

Tangney, J. P., Miller, R. S., Flicker, L., & Barlow, D. H. (1996). Are shame, guilt, and embarrassment distinct emotions?. *Journal of Personality and Social Psychology*, *70*(6), 1256-1269.

Turner, J. E., & Husman, J. (2008). Emotional and cognitive self-regulation following academic shame. *Journal of Advanced Academics*, *20*(1), 138-173.

Tyng C. M., Amin H.U., Saad M. N. M., & Malik, A. S. (2017) The influences of emotion on learning and memory. *Front. Psychol. 8*, doi: 10.3389/fpsyg.2017.01454

Walker, J. (2017). Shame and transformation in the theory and practice of adult learning and education. *Journal of Transformative Education*, *15*(4), 357-374.

Watkins, E. D., & Moulds, M. (2005). Distinct modes of ruminative self-focus: impact of abstract versus concrete rumination on problem solving in depression. *Emotion*, *5*(3), 319-328.

Watkins, E., & Teasdale, J. D. (2004). Adaptive and maladaptive self-focus in depression. *Journal of Affective Disorders*, *82*(1), 1-8.

Watson, P. J., Chen, Z., & Sisemore, T. A. (2011). Grace and Christian Psychology-Part 2: Psychometric refinements and relationships with self-compassion, depression, beliefs about sin, and religious orientation. *Edification: The Transdisciplinary Journal of Christian Psychology*, *4*(2).

Wang, Y., Jones, B. F., & Wang, D. (2019). Early-career setback and future career impact. *Nature Communications*, *10*(1), 1–10. https://doi.org/10.1038/s41467-019-12189-3

Weick, K. E., & Quinn, R. E. (1999). Organizational change and development. *Annual review of psychology*, *50*(1), 361-386.

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, *92*(4), 548–573. https://doi.org/10.1037/0033-295X.92.4.548

Weiner, B. (2018). The legacy of an attribution approach to motivation and emotion: A no-crisis zone. *Motivation Science*, *4*(1), 4–14. https://doi.org/10.1037/mot0000082

Williams, J. G., Stark, S. K., & Foster, E. E. (2008). Start today or the very last day? The relationships among self-compassion, motivation, and procrastination. *American Journal of Psychological Research*, 4, 37-44.

Woodyatt, L., Worthington, E. L., Wenzel, M., & Griffin, B. J. (2017). Orientation to the psychology of self-forgiveness. In *Handbook of the psychology of self-forgiveness* (pp. 3-16). Springer, Cham.

Yip, V. T., & Tong MW, E. (2020). Self-compassion and attention: self-compassion facilitates disengagement from negative stimuli. *The Journal of Positive Psychology*, 1-17.

Zessin, U., Dickhäuser, O., & Garbade, S. (2015). The relationship between self-compassion and well-being: A Meta-Analysis. *Applied Psychology: Health and Well-Being*, *7*(1), 340-364. https://doi.org/10.1111/aphw.12051

Zhang, J. W., & Chen, S. (2016). Self-compassion promotes personal improvement from regret experiences via acceptance. *Personality and Social Psychology Bulletin*, *42*(2), 244-258. https://doi.org/10.1177/0146167215623271

Zhang, H., Dong, L., Watson-Singleton, N. N., Tarantino, N., Carr, E. R., Niles-Carnes, L. V., ... & Kaslow, N. J. (2019). Psychometric properties of the self-compassion scale (SCS) in an African American clinical sample. *Mindfulness*, *10*(7), 1395-1405.

Appendix A: Tables

Table 1

Full Breakdown of Demographic Variables

Variable	*M*	*SD*
Age	34	10.8

	n (% of total sample)
Gender	
Female	186 (52.5%)
Male	165 (46.6%)
Non-binary/third gender	1 (0.3%)
Race	
Black or African American	21 (5.9%)
Latino/Latina/Latinx	16 (4.5%)
Indigenous or Alaska Native	3 (.8%)
Asian	36 (10.2%)
White	259 (73.2%)
Multi-racial	12 (3.4%)
Prefer not to respond	3 (0.8%)
Failure Context	
School	109 (30.8%)
Work	84 (23.7%)
A romantic relationship	55 (15.5%)
My family	30 (8.5%)
My physical health	26 (7.3%)
Friends/social life	20 (5.6%)
Athletics	16 (4.5%)
Other	14 (4.0%)

Table 2

Means, Standard Deviations, Internal Consistencies and Correlations for all Variables

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Self-Compassion Induction																
1. Condition			-		.18**	.14**	.14**	-.20**	-.14**	-.19**		-.01	.00	-.04	-.04	-.07
Self-Compassion																
2. Self-Compassion (Overall)	2.79	.75		**.83**	.85**	.74**	.81**	-.81**	-.79**	-.77**		.09	.15**	-.09	-.04	-.09
3. Self-Kindness	2.92	.98			**.90**	.75**	.83**	-.56**	-.49**	-.44**		.09	.12*	.00	.06	.06
4. Common Humanity	3.18	.97				**.85**	.76**	-.34**	-.35**	-.31**		.12*	.12*	-.07	.06	-.07
5. Mindfulness	3.26	.89					**.83**	-.44**	-.45**	-.40**	.09	.09	.09	-.08	-.02	-.04
6. Self-Judgment	3.56	.95						**.87**	.76**	.78**		-.09	-.09	.10	.06	.09
7. Isolation^{RC}	3.56	.95							**.83**	.74**		-.06	-.14**	.04	.04	.06
8. Over-Identified^{RC}	3.49	.92								**.81**		-.00	-.16**	.09	.07	.06
Attributions																
9. Locus of Causality	6.55	1.95										-.16**	.38**	.30**	.68	.26**
10. External Control	4.52	2.28										**.72**	-.08	-.13*	.05	-.02
11. Personal Control	7.13	1.90											**.84**	.44**	.29**	.33**
12. Stability	7.56	1.56												**.61**	.50**	.65**
13. Globality	7.26	1.67													**.60**	.43**
14. Universality	7.30	1.71														**.75**

Note. $N = 354$. * $p < .05$ level (2-tailed). ** $p < .01$ level (2-tailed). Condition is coded 0 = control, 1 = self-compassion induction. Reverse coded subscales for the negatively worded self-compassion subscales are indicated with the sub script= RC. Cronbach's alphas are presented along diagonal.

Table 3

Summary of Regression Analysis Predicting Self-Compassion with Condition

Model and variable	*B*	*SE*	β	R^2
Model 1				.04**
Constant	2.64	.05		
Condition	.32	.08	.21**	

Note. $N = 354$.
** $p < .01$.

Table 4

Summary of Regression Analysis Predicting Locus of Causality with Condition

Model and variable	*B*	*SE*	β	R^2
Model 1				.00
Constant	6.51	.14		
Condition	.08	.21	.02	

Note. $N = 354$.
** $p < .01$.

Table 5

Summary of Regression Analysis Predicting External Controllability with Condition

Model and variable	*B*	*SE*	β	R^2
Model 1				.00
Constant	4.56	.17		
Condition	-.09	.24	-.02	

Note. $N = 354$.
** $p < .01$.

Table 6

Summary of Regression Analysis Predicting Personal Controllability with Condition

Model and variable	*B*	*SE*	β	R^2
Model 1				.00
Constant	7.13	.14		
Condition	.01	.20	.00	

Note. $N = 354$.
** $p < .01$.

Table 7

Summary of Regression Analysis Predicting Stability with Condition

Model and variable	*B*	*SE*	β	R^2
Model 1				.00
Constant	7.63	.12		
Condition	-.14	.17	-.04	

Note. $N = 354$.
** $p < .01$.

Table 8

Summary of Regression Analysis Predicting Globality with Condition

Model and variable	*B*	*SE*	β	R^2
Model 1				.00
Constant	7.32	.12		
Condition	-.12	.18	-.04	

Note. $N = 354$.
** $p < .01$.

Table 9

Summary of Regression Analysis Predicting Universality with Condition

Model and variable	*B*	*SE*	β	R^2
Model 1				.00
Constant	7.41	.13		
Condition	-.23	.19	-.07	

Note. $N = 354$.
** $p < .01$.

Table 10

Summary of Regression Analysis Predicting Locus of Causality with Personal Control and Condition Variables

Model and variable	*B*	*SE*	β	R^2	ΔR^2
Model 1				.14**	
Constant	6.51	.13			
Condition	.08	.19	.02		
Personal Controllability (Centered)	.39	.05	.38**		
Model 2				.14	.00
Constant	6.51	.13			
Condition	.08	.19	-.40		
Personal Controllability (Centered)	.41	.07	.40**		
Condition X Personal Controllability (Centered)	-.05	.10	-.03		

Note. $N = 354$.
** $p < .01$.

Table 11

Summary of Post-Hoc Regression Analysis Predicting Locus of Causality with Personal Control and Self-Compassion Scores

Model and variable	*B*	*SE*	β	R^2	ΔR^2
Model 1				.14**	
Constant	6.55	.10			
Personal Controllability (Centered)	.385	.05	.37**		
Self-Compassion (Centered)	.010	.13	.00		
Model 2				.16**	.02
Constant	6.55	.10			
Personal Controllability (Centered)	.42	.05	-.11**		
Self-Compassion (Centered)	-.01	.13	.12		
Personal Controllability (Centered) X Self-Compassion (Centered)	.16	.06	.14**		

Note. $N = 354$.
** $p < .01$, *$p < .05$.

Table 12

Results of Mediation Model for Condition and Locus of Causality

	Unstandardized		*95% CI*		
	B	*SE*	*Lower*	*Upper*	*p*
Condition → SC (a path)	.32	.08	.161^	.469^	.00**
SC → Locus of Causality (b path)	.15	.14	-.124	.432	.28
Condition → Locus of Causality (c' path; direct effect)	.03	.21	-.388	.447	.89
Condition → SC → Locus of Causality (indirect effect)	.05	.05	-.047	.159	

Note. ** p< .01; * p< .05; ^Significant confidence interval

Table 13

Results of Mediation Model for Condition and External Controllability

	Unstandardized		*95% CI*		
	B	*SE*	*Lower*	*Upper*	*p*
Condition → SC (a path)	.32	.08	.161^	.469^	.00**
SC → External Controllability (b path)	.33	.17	.004^	.654^	.05*
Condition → External Controllability (c' path; direct effect)	-.19	.25	-.677	.298	.45
Condition → SC → External Controllability (indirect effect)	.10	.07	-.012	.242	

Note. ** p< .01; * p< .05; ^Significant confidence interval

Table 14

Results of Mediation Model for Condition and Personal Controllability

	Unstandardized		*95% CI*		
	B	*SE*	*Lower*	*Upper*	*p*
Condition → SC (a path)	.32	.08	.161^	.469^	.00**
SC → Personal Controllability (b path)	.40	.14	.132^	.670^	.05*
Condition→Personal Controllability (c' path; direct effect)	-.12	.20	-.525	.282	.55
Condition → SC → Personal Controllability (indirect effect)	.13	.06	.026^	.251^	

Note. ** p< .01; * p< .05; ^Significant confidence interval

Table 15

Results of Mediation Model for Condition and Stability

	Unstandardized		*95% CI*		
	B	*SE*	*Lower*	*Upper*	*p*
Condition → SC (a path)	.32	.08	.161^	.469^	.00**
SC → Stability (b path)	-.19	.11	-.415	.028	.09
Condition → Stability (c' path; direct effect)	-.08	.17	-.408	.257	.66
Condition → SC → Stability (indirect effect)	-.06	.04	-.155	.010	

Note. ** p< .01; * p< .05; ^Significant confidence interval

Table 16

Results of Mediation Model for Condition and Globality

	Unstandardized B	*SE*	*95% CI Lower*	*Upper*	*p*
Condition → SC (a path)	.32	.08	.161^	.469^	.00**
SC → Globality (b path)	-.06	.12	-.302	.176	.60
Condition → Globality (c' path; direct effect)	-.10	.18	-.461	.255	.57
Condition → SC → Globality (indirect effect)	-.02	.04	-.096	.048	

Note. ** p< .01; * p< .05; ^Significant confidence interval

Table 17

Results of Mediation Model for Condition and Universality

	Unstandardized		*95% CI*		
	B	*SE*	*Lower*	*Upper*	*p*
Condition → SC (a path)	.32	.08	.161^	.469^	.00**
SC → Universality (b path)	-.18	.12	-.419	.068	.16
Condition → Universality (c' path; direct effect)	-.17	.19	-.539	.193	.35
Condition → SC → Universality (indirect effect)	-.06	.05	-.153	.031	

Note. ** p< .01; * p< .05; ^Significant confidence interval

Table 18

Summary of Post-hoc Regression Analysis Predicting Self-Kindness with Condition

Model and variable	*B*	*SE*	β	R^2
Model 1				.03**
Constant	2.57	.07		
Condition	.36	.10	.18**	

Note. ** p< .01; * p< .05

Table 19

Summary of Post-hoc Regression Analysis Predicting Common Humanity with Condition

Model and variable	*B*	*SE*	β	R^2
Model 1				.02*
Constant	3.04	.071		
Condition	.28	.102	.14*	

Note. ** p< .01; * p< .05

Table 20

Summary of Post-hoc Regression Analysis Predicting Mindfulness with Condition

Model and variable	*B*	*SE*	β	R^2
Model 1				.02*
Constant	3.14	.07		
Condition	.25	.09	.14*	

Note. ** p< .01; * p< .05

Appendix B: Figures

Figure 7

Comparison of Self-Compassion Means for Conditions

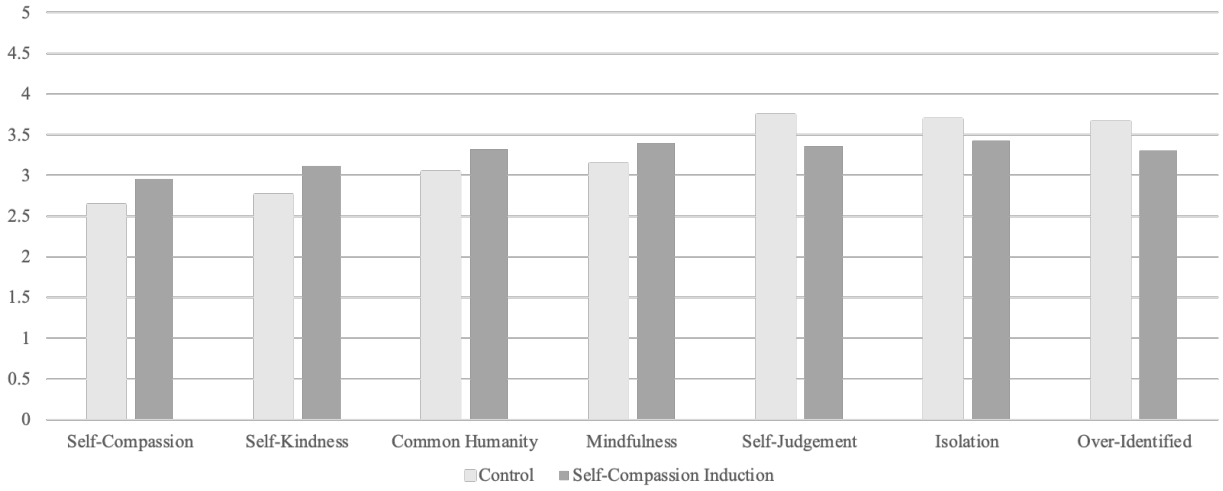


Figure 8

Comparison of Attribution Dimension Means for Condition

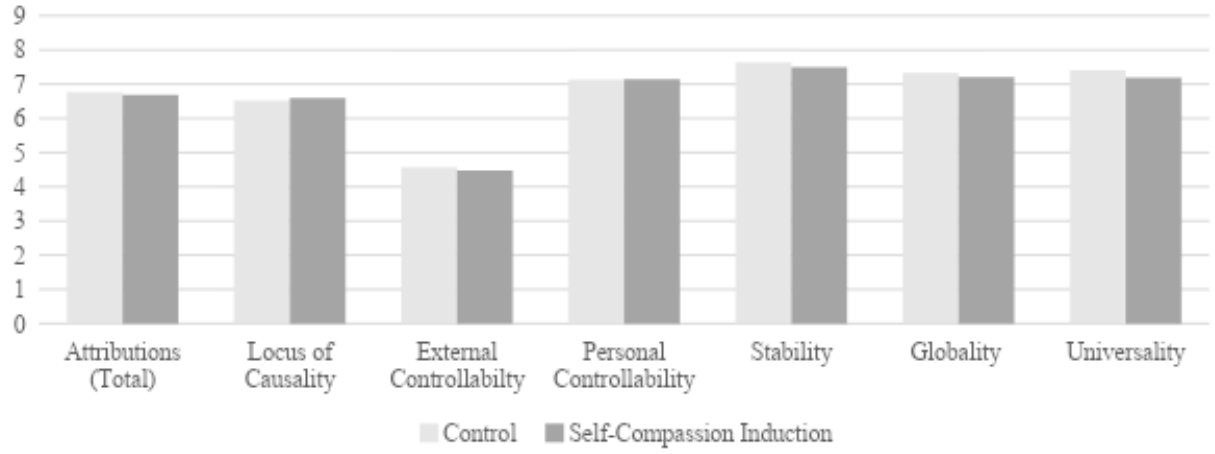
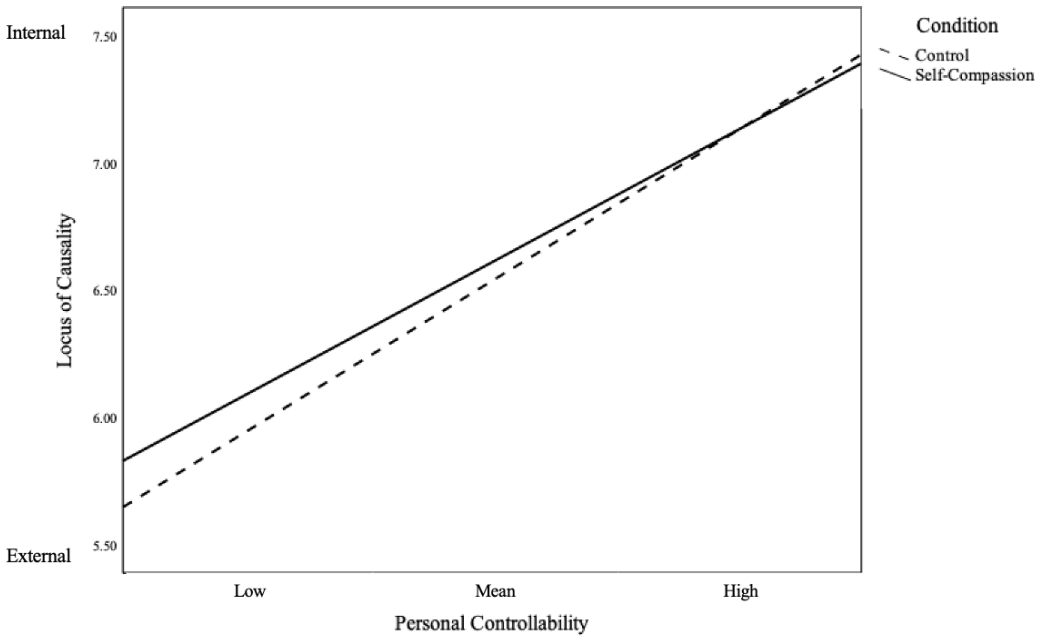


Figure 9

Graph of simple slopes for condition moderating the relationship between personal controllability and locus of causality



Note. This graph demonstrates that at low personal controllability, those in both the self-compassion group and the control rated the locus of causality as external to a similar extent. Additionally, at high personal controllability, the self-compassion group and the control group rate the locus of causality as internal to a similar extent.

Figure 10

Graph of simple slopes for self-compassion moderating the relationship between personal controllability and locus of causality

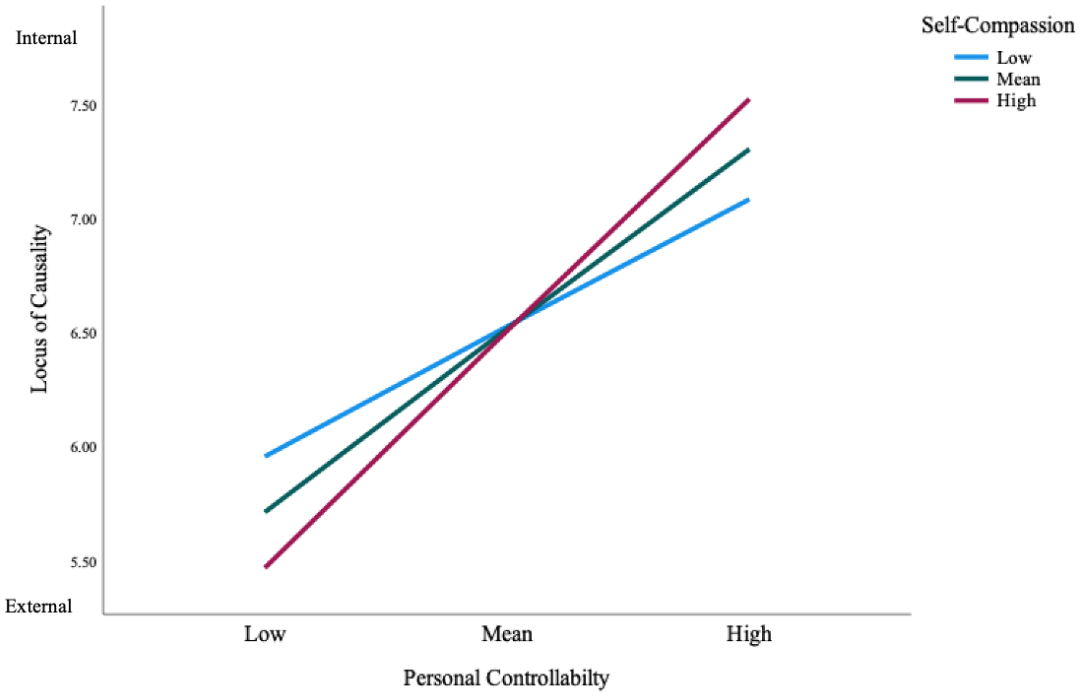
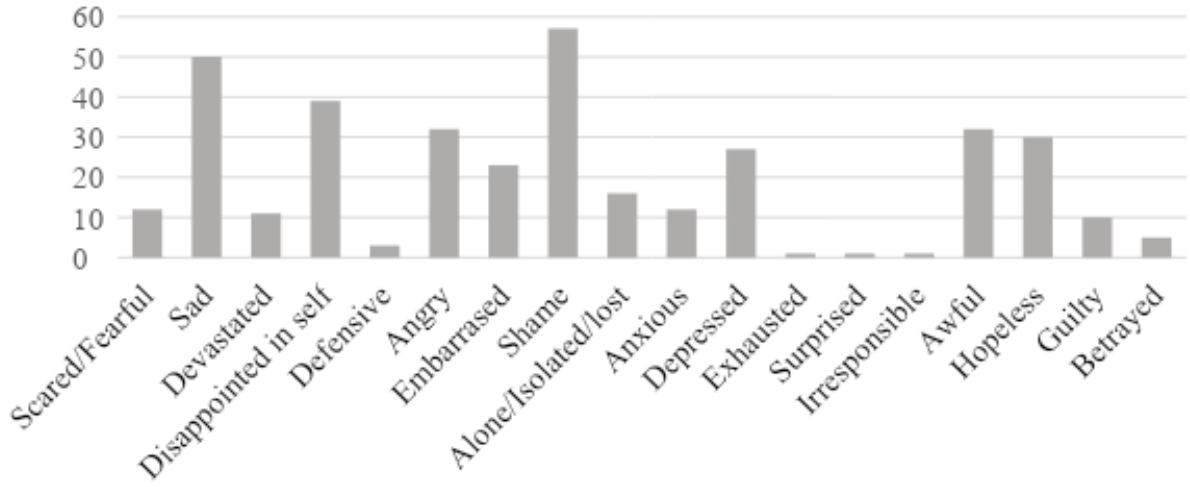


Figure 11

Informal Qualitative Analysis of Reported Emotions Felt at Time of Failure



Note. The Y-axis denotes the number of times the emotion was reported to be felt. In total there was 362 mentions of emotion captured. That is, some individuals in the study reported feeling more than one emotion at the time of failure.