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Approaching Stressful Situations with Purpose: Strategies for Emotional Regulation in Sensitive People

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A dissertation submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

In

Industrial-Organizational Psychology

Seattle Pacific University

February, 2017

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Dedication

I dedicate this dissertation to:

Spencer Joel Nagley

Husband, Companion, Love

You have been my greatest support through both the joyful and challenging times. Thank you for listening to my ideas on our cherished hikes, soothing me when I needed a sense of calm, believing in my strengths, and sharing the beauty of life's journey through past chapters and those to come. I'm blessed to walk life's path with you.

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Amy Nagley
338 words

Abstract

The purpose of this study was to evaluate strategies for emotional self-regulation (EMSR) in highly sensitive people (HSPs) under pressure. Specifically, a model of EMSR was evaluated through a moderated-mediation design with two manipulations across two experiments. A total of 445 individuals participated in the current study (52% female), all of which were US citizens. Results suggested that the relationship between sense of purpose (SoP) and EMSR was moderated by focus on potential (FoP). Specifically, SoP significantly impacted FoP, $b = .89, t = 5.23, p < .01$, FoP significantly impacted EMSR, $b = 1.11, t = 5.88, p < .01$, and the Sobel test suggested a significant indirect effect, $z = 3.91, p < .01$.

The hypothesis that sensory-processing sensitivity (SPS) moderates the relationship between FoP and EMSR was not supported, $b = .29, t = 1.50, p = .13$, 95% CI [-.09, .66]. Supplemental analyses were conducted to evaluate the extent to which SPS moderated the relationship between SoP and FoP. Aguinis's (2009) ALTMMR program was used to evaluate homoscedasticity for the relationship between SPS and FoP within both conditions of SoP. DeShon and Alexander's (1996) rule of thumb for homoscedasticity was not met, $M = 6.24, p < .01$. To correct for the violation, James's test was used to evaluate the simple slopes of the moderation. Results indicated that differential slopes were present, $U = 5.57, p < .05$. Alexander's test also indicated differential slopes, $A = 5.47, p = .02$. These results suggest that SPS moderated the relationship between SoP and FoP.

Because several of the measures used were contextualized for the current study (i.e., SoP, FoP, and EMSR), exploratory factor analyses were conducted to establish discriminate validity. Results indicated that each scale was distinct from the others, and was comprised of the items intended to measure its respective construct.

Beyond hypothesis testing, an important finding from the current study was the power of priming through vignettes. Manipulation check results indicated that the morally constructed primes were successful at impacting participants FoP and EMSR.

CHAPTER I Introduction and Literature Review

When individuals go to work, they bring their “work self” as well as experiences, thoughts, and emotions that spill over from other areas of life (Crouter, 1984; Stephens, Franks, & Atienza, 1997). When life experiences become demanding and pressure is heightened, cognitive and emotional resources become scarce and can evoke a state of negative affect in individuals (Hobfoll, 1989). Whereas negative affect can be adaptive, it can result in reactivity where attention is narrowed and focused on fixing problems (rather than seeing potential; Fredrickson, 2001). Furthermore, the tendency for reactivity in stressful situations may be exacerbated for individuals who tend to be more sensitive to stressful stimuli, pressure, and conflict (Aron & Aron, 1997). For the sake of helping leaders and employees to stay focused on the potential to be gained in high-pressure situations, the current research aims to explore the extent to which having a sense of purpose enables people of various sensitivity levels to better emotionally self-regulate under pressure.

Emotional self-regulation (EMSR) has been defined as “the extent to which individuals influence which emotions they have, when they have them, and how they experience and express those emotions” (Gross, 1998, p. 275). Consider the following scenario, put yourself in the shoes of this person, and evaluate how easy/difficult it might be influence your own emotions in real-time.

It is the end of the week and you have been stretched to your max. Your children have the flu, you have not had much sleep, your email inbox is overflowing, you have

deadlines approaching, and to top it all off, someone explicitly challenged your competence in a meeting that was very important to you in front of the entire group.

According to Hobfoll (2001), the way in which individuals handle times of stress and pressure is directly associated with their current level of internal and external resources. For example, if a person has an abundance of resources such as a supportive family, good health, purpose/meaning in life, etc., they may respond neutrally to a stressful situation. They may even respond in a way that brings out their best in the situation. On the other hand, individuals who are experiencing a cycle of decreased resources may become defensive as they attempt to protect the resources they have left. When people are emotionally aroused and focused on defending themselves (rather than on the potential in a situation), opportunities of potential and growth may be inhibited (Hobfoll, 2001), and organizational outcomes may suffer. Therefore, for the sake of individual health and organizational potential, strategies for EMSR may be necessary.

Extensive literature regarding the history of emotion and EMSR has been considered by Gross (1999) in the development of the *modal model of emotion* (Gross & Thompson, 2007). The process model highlights five conceptual families of EMSR strategies that can occur at various time-points in the emotion generative process (i.e., situation selection, situation modification, response modulation, cognitive change, and attentional deployment). Because the families have undergone little experimentation of which we are aware, the main contribution of the current study is to begin operationalizing and testing specific strategies that fall within some of these families.

Specifically, I am proposing in this study that a person's EMSR can be impacted by a sense of purpose (SoP) working through a focus on the potential (FoP) in the situation. Furthermore, I believe that this model may work differently depending on a person's level of sensory-processing sensitivity (SPS). In the following discourse, I will present a theoretical and empirical rationale for the proposed relationships in the overall model (see Figure 1 for the study model and hypotheses that will be discussed).

I anticipate that this study's results could benefit practitioners, coaches, and individuals in significant ways. Firstly, if it can be demonstrated that a SoP impacts FoP in high-pressure situations, identifying one's purpose in real time can theoretically be practiced in the privacy of one's mind for seeing things more meaningfully when it matters most. Secondly, if having a SoP proves to cause EMSR through a FoP in high-pressure situations, people who experience difficulty managing their emotions can take control and start practicing these interventions to effectively regulate their otherwise aroused emotions.

Lastly, if it is the case that people with high SPS benefit more by a SoP and FoP, they can practice tuning in to their purpose and/or potential in real time for greater EMSR in situations that are typically difficult for them. Furthermore, practitioners, coaches, managers, and even parents can perhaps use this information to enable people to thrive in situations that have been traditionally difficult for them by modeling and teaching effective ways to identify SoP and FoP in real time.

In the following sections, a thorough description of the study constructs and hypotheses will be provided. Specifically, the importance of EMSR will be discussed, followed by an elaborate description of SoP and its relationship to FoP and EMSR.

Subsequent sections will entail a discussion of the way that a FoP may enable a strong sense of EMSR for all individuals, but especially for HSPs.

Importance of Emotional Self-Regulation (EMSR)

Affect is said to be the “source of all intimacy,” and “without affect, there is neither fun nor pain” (Panksepp, 2008, p. 47). From an adaptive perspective, emotions encode situation-response dependencies that have been crucial for survival in the earlier days of humans (Tooby & Cosmides, 1990). Many emotions have been identified, and are believed to be instinctual feelings that facilitate survival. Negative emotions inform people that something needs to change to ensure survival, and positive emotions serve as signals to inform people that they are behaving in a way that is conducive to a high probability of survival.

Humans in many parts of the world are currently living in a different culture than early humans; advanced technology, flashing screens, fast-paced corporate business, and a capacity for unprecedented global connection are new to the human nervous system. The types of stimulation in today’s culture may be advancing faster than the human nervous system can keep up. If this is so, people may be erroneously attempting to protect their lives in situations where their life is not actually being threatened (e.g., having a full inbox and being challenged by a co-worker). This issue is consistent with Selye’s (1976) general adaptation syndrome (GAS), which suggests that parts of the brain may not be able to discriminate between physical and metaphorical threats. It is in these situations that negative emotions may not be as helpful as they once were, and should be regulated.

The Source of Stress, Pressure, and Emotion

The concept of EMSR implies that emotions should be regulated, but also entails an assumption that stress and emotion are natural, and adaptive phenomena for all humans (Gross, 1999). The general consensus is that aroused emotions, which often follow stressful situations are evolutionarily beneficial, such that attention is narrowed and focused on to the stressful situation at hand so the individual can deal with it deliberately and cautiously (Fredrickson, 1998; Fredrickson & Levenson, 1998). Aside from the subjective experience of the stress response, many physiological changes occur to enable individuals to take necessary action (Selye, 1936). Some of these include redirection of blood to the brain and large muscle groups (and away from extremities, skin, and vegetative organs), sharpened vision, hearing, and a release of glucose and fatty acids (Selye; 1936; Quick, Wright, Adkins, Nelson, & Quick, 2013). These physiological functions may be happening beneath a person's conscious awareness as he/she manages everyday pressures, especially if resources are being depleted.

Whereas emotions are believed to function for the purpose of directing cognitions and behavior toward environmental demands that are conducive to one's goals (Frijda, 2007), it has been shown that many maladaptive instances counter to one's goals can occur for a variety of reasons. For example, private behaviors such as rumination, suppression, avoidance, and procrastination often occur in the presence of negative emotions (Perrewe, Rosen, & Halbesleben, 2013), and actually direct thoughts and behavior away from one's goals. When emotions get out of control, and thoughts and behavior are directed away from one's goals, outcomes may not be positive for the individual or the system in which they are a part.

Some may wonder, “What causes a person to let their emotions get the best of them when the emotions are non-conducive to what is important to them?” Tooby and Cosmides (2010) argue that the *human mental architecture* is made up of numerous functionally specialized programs, all which have evolved to solve specific, adaptive problems (e.g., fear has helped humans to survive through fight or flight). If simultaneously activated however, the authors suggest that the programs can conflict with each other and interfere with the others’ function. For example, emotions such as fear may arise so strongly for an individual in distress that logical thinking patterns about one’s goals are diminished. In this case, it is important for the mind’s programs to be brought in to sync so they can work together for the individual’s adaptive outcome. If people tend to act primarily from programs that have evolved to keep them alive (i.e., fear), they may spend more time responding to perceived threats than focusing their attention toward meeting their goals.

Ample evidence suggests that individuals can impact their emotional states by activating their prefrontal cortex and logical thinking processes. For example, research shows that when a person names the emotion they are experiencing (i.e., *affect labeling*), emotional activation subsides and performance is enhanced through logical processing (Lieberman, 2013; Niles, Craske, Lieberman, & Hur, 2015). Through this rationale, naming a person’s goals or what is important to them during a state of high pressure may also strengthen logical processing. By shifting the individual’s focus toward purpose-relevant activities that align with what is important to them in that moment (rather than the problems at hand), they may be better able to emotionally self-regulate.

Sense of Purpose (SoP) as a Resource for EMSR

In comparison to goal-setting, which has been defined as an “object or aim of an action” (Locke & Latham, 2002, p. 705), *purpose* has been defined by Damon, Menon, and Bronk, (2003, p. 121) as a “stable and generalized intention to accomplish something that is at once meaningful to the self and of consequence to the world beyond the self.” The importance of purpose as a resource in one’s life is consistent with many theories related to emotional wellbeing (Battista & Almond, 1973; Crumbaugh & Maholick, 1964; Frankl 1955, 1976; McKenna & Yost, 2004; Ryff & Singer, 2006), as well as included in Hobfall’s (1989) list of 74 established resources that aid in adapting appropriately to stress. Hobfall’s (1989) resource theory suggests that people respond to various situations based on the amount and quality of resources that they possess. These resources may not in and of themselves lead a person to better regulate their emotions under stress, but may provide them with various options or schemas for perceiving and handling the situation.

For example, a person who goes into a high-pressure situation with a SoP for why they are there and what they are trying to accomplish may maintain a sense of grounding as the situation plays out (in comparison to a person without a SoP whose attention is pulled in multiple directions). As moments of disagreement or other arousing instances arise, maintaining a SoP may allow the individual to remain cognitively collected. As the individual focuses on his/her SoP, their attention may be naturally drawn to aspects of the situation that are conducive to that purpose (rather than on problems that tend to stir emotions). Therefore, the extent to which a person is able to regulate their emotions under pressure may be informed by what they are paying attention to in that moment.

SoP Directs Attention Toward Potential

Similar to a function of goal setting (Locke & Latham, 2002), having a SoP in a stressful situation may aid in directing one's attention toward purpose-relevant activities (i.e., the potential in the situation), and away from non-purpose relevant activities. When a person's focus is shifted toward purpose-related goals, accomplishment of higher-level purpose goals and task-related target goals that are conducive to a larger sense of meaning for the person may occur (de Klerk, 2005).

When pressure is high and individuals are faced with situations where resources are being drained and demands are piling up, a person without a SoP may be left to react in a thoughtless way that is counter to EMSR and accomplishment of what is important. On the other hand, tuning in to a SoP in the situation may facilitate intentional focus and enable a specific path for awareness and responding among the chaos.

By tuning in to one's purpose, a person may essentially be priming one's self to pay more attention to internal and external cues that align with that purpose and less attention to ones that do not. For example, a study by Rothkopf and Billington (1979) showed that when individuals set specific learning goals prior to a task, they paid more attention to and learned information that was specific to those goals than they did for other types of information embedded in the task. In other words, a SoP may create a framework through which the individual can filter incoming information and respond in a way that aligns with something meaningful and potential-focused for the person.

Hypothesis 1: Having a strong SoP in a high-pressure situation positively impacts one's focus on the potential in the situation.

SoP Impacts EMSR Through a Focus on Potential (FoP)

When a person shifts their awareness toward purpose-relevant stimuli, their mental faculties are by default directed away from uncontrollable problems that cause emotional arousal, and onto aspects of the situation that are controllable and meaningful. Whereas SoP is believed to impact EMSR by way of various types of cognitive processing, a major argument in the current study is that a SoP impacts EMSR by in large through a FoP.

Emotions are believed to be signaled when people experience incongruence among their set of cognitions (e.g., “my goal is to succeed in this meeting, but I sense that I am failing;” Stets & Turner, 2010). To alleviate the dissonance, individuals are motivated to change some part of their thinking/behaving to bring all parts into congruence. For example, if an individual senses that he/she is failing at the task at hand, he/she might do one of two things: (a) shift their thoughts regarding the importance of the task to be in line with their failure (e.g., this task is not very important to me anyways), or (b) shift their behavior to be in line with their goals of success (e.g., I am going to start doing better).

Continuing to focus on problems (rather than potential) may cause a person to alleviate dissonance through justification and giving up, which does no service to their emotional state or goals. In their advocacy for the appreciative inquiry technique, Cooperrider, Sorensen, Whitney, and Yaeger (1999) strongly suggest that people should not look at situations as problems to be solved, but as potential to be realized. They postulate that when awareness is focused on the potential at hand, people are propelled into positive states of cognition and emotion. They go on to discuss that focusing on the

potential in situations has a way of creating positive energy among people, and leads to actions that are conducive to one's goals.

A *FoP* has been defined as “a focus on the possibilities and potential within the system instead of on the problems and deficits. Further, problems are discussed, not ignored. One's focus is on the potential that can be achieved on the other side by working through immediate issues” (McKenna & Yost, 2004, p. 296). When a person's actions are in line with their goals, their mental states are said to be in congruence, and emotions can relax and regulate (Stets & Turner, 2010). These concepts are consistent with Fredrickson's (2001) suggestion that personal resources are accrued during positive emotional states. Assuming that a focus on the potential is associated with positive emotional states, one might expect people to accrue additional resources that can aid in effective EMSR when they are focusing on the potential at hand (more so than the problems).

Hypothesis 2: The relationship between SoP and EMSR is mediated by FoP.

Highly Sensitive People (HSPs) May Benefit Most from FoP

Many explanations exist as to why some people's emotions tend to overpower their logical thought processes more than others. Some of these explanations include parental upbringing and behavioral modeling (Morris, Silk, Steinberg, Myers, & Robinson, 2007), early traumas (Schore, 2001), neurological problems (Pynoos, Steinberg, & Piacentini, 1999), and more. Whereas many explanations regard some kind of dysfunctional event, many individuals may default to emotional reactivity because their nervous system is wired such that their nerves are sensitive to stimulation (Kagan &

Snidman, 2004). Being sensitive to stimulation may enable emotions to overpower logical information processing because they are more salient to the individual, making it difficult for them to emotionally self-regulate during high-pressure situations.

Depending on how one is wired, stressful situations may evoke a strong sense of anxiety and pressure (Boterberg & Warreyn, 2016). Whereas some individuals may be less sensitive to stressful stimuli, others may have a tendency to get emotionally overwhelmed more easily. Of the individuals who have a difficult time navigating high pressure situations, research has shown that approximately 20% of the human population has a heightened level of sensory-processing sensitivity that can become debilitating during times of high pressure and multiple demands (Aron & Aron, 1997). Many individuals may quickly jump to advocating for such individuals to stay out of high-pressure jobs, but it has been suggested that organizations and society are a much better place with them because they tend to be very visionary, empathetic, and conscientious individuals (Aron, 1997).

Sensory Processing Sensitivity (SPS) and The Highly Sensitive Person (HSP)

Mentioned in previous texts such as Victor Frankl's *Man's search for meaning*, a certain kind of person has appeared to exist in the history of humanity that has traditionally been labeled with various terms such as "fragile," "emotional," or "sensitive." After a series of studies, a unidimensional core of SPS emerged that showed to be separate from constructs such as social introversion and emotionality (Aron & Aron, 1997). *SPS* has been defined as a genetically determined temperamental or personality trait that is present in approximately 20% of the human population, and reflects hypersensitivity to stimulation, a greater depth of cognitive processing, and

higher emotional reactivity (Aron & Aron, 1997; Aron, Aron, & Jagiellowicz, 2012). Individuals that are part of this group can be introverts and extroverts, and tend to be very empathetic, creative, conscientious, aware of subtleties in the environment, deeply affected by change and life transitions, often affected by bright lights or harsh smells, experience a rich spiritual/inner life, have strong reactions against caffeine and alcohol, and can be easily overwhelmed when a lot is going on and people are acting harshly or negatively (Aron & Aron, 1997; Aron, Aron, & Jagiellowicz, 2012).

The genetic trait (rooted in the way the nervous system is wired) is suggested to exist not only in humans, but also in over 100 species including dogs, cats, mice, monkeys, and horses (Suomi, 2006; Verbeek, Drent, & Wiepkema, 1994; Wilson, Coleman, Clark, & Biederman, 1993). Whereas the downside of SPS tends to be heightened levels of overstimulation and difficulty navigating the high-pace society that we live in today, the upside is that these individuals tend to have a strong sense of caring for others, a greater sense of awareness of subtleties that are often missed by more impulsive types, and tend to be visionaries, artists, inventors, and wise people that can significantly contribute to the greater good of organizations and society (Aron, 1997; Aron & Aron, 1997; Aron, Aron, & Jagiellowicz, 2012). Many strategies have been put forth for enabling HSPs to survive and thrive in today's world (e.g., Zeff, 2004). However, the theory of SPS may grow and flourish as other fields of research such as Industrial-Organizational Psychology begin acknowledging and contributing to the field of study.

Recall the example provided earlier where the employee was overwhelmed with work and family demands. Assuming the this person is an HSP, it is likely that the

overwhelming sense of emotionality experienced by this person could overshadow logical thought processes that enable the individual to stay calm, cool, collected, and focused on the task at hand. Instead of engaging in a path of logical thought, the individual may experience frazzled thinking and over-aroused emotions that inhibit adaptive and purposeful behavior.

Rather than entering into over-stimulating situations and being pulled in multiple directions emotionally, having a focus on what is important may provide these individuals with an anchor for their awareness. Similar to goal-setting theory (Locke & Latham, 2002), having a focus on the potential may enable HSPs to “tune out” from irrelevant stimulation and focus their attention on the potential to be realized. If individuals and organizations seek to best serve those in need, it is as important as ever in our ever-changing and high-pressure world of work that all individuals (especially HSPs) learn to bring their mental programs into harmony so emotions can be regulated and potential can be realized. See Figure 2 for the Hypothesis 3 depiction.

Hypothesis 3: For individuals with low levels of sensory processing sensitivity, focusing on potential in a stressful situation will result in slight gains in EMSR. However, for individuals who possess high levels of sensory processing sensitivity, focusing on the potential in a stressful situation will result in substantial gains in EMSR.

Conditional Indirect Effect (purpose through potential and toward EMSR)

Furthermore, people with high levels of SPS may enjoy the benefits of having a SoP on EMSR through FoP more so than people with low SPS. In other words, a larger percent of SoP may go through FoP in route to EMSR for HSPs than non-HSPs. I believe

that all people can benefit from a SoP for their EMSR. However, I believe that HSPs may disproportionately shift toward a FoP as a means for achieving EMSR more so than non-HSPs. Because HSPs tend to be aware of more subtleties in their environments and experience stimuli more deeply than non-HSPs, a slight nudge toward purpose could drastically change the breadth and depth of their situational experience. When tuned in with purpose, they may shift their focus from subtleties associated with problems, to subtleties associated with potential for ultimately regulating emotions.

A non-HSP who is less aware of subtleties on the other hand, may experience less of the deep shift in awareness that takes place after tuning into their purpose because deep-level processing is not part of their wiring. They may move toward EMSR more naturally, without the deep cognitive stimulation happening between SoP and EMSR. In other words, the percent of SoP going through FoP may be less than for HSPs.

Hypothesis 4: A conditional indirect effect will be observed, such that the impact of SoP on EMSR through FoP will be strongly positive for highly sensitive people, and slightly positive for people with low SPS.

Filling the Gaps of the EMSR Literature

Gross (1998) puts forth five specific ways to regulate one's own emotions: (a) situation selection, (b) situation modification, (c) response modulation, (d) cognitive change, and (e) attentional deployment. Whereas some of these methods may not be appropriate for situations such as the hypothetical one presented at the beginning of this discussion, attentional deployment and cognitive change may serve as useful because they can be used in the midst of an already-occurring situation. According to Gross (1998, 2010) attentional deployment has often been discussed in terms of distracting

one's attention away from the stressors at hand (e.g., thinking of one's self on the beach rather than the stressful work situation). This technique may enable the individual to feel better in the moment. However, it does not provide additional internal resources for the individual, nor does it help the person to navigate the high-pressure situation in a way that aligns with what is meaningful to him/her.

Furthermore, Hayes, Bond, and Flaxman (2013) discuss at length the dangers of avoiding unpleasant emotions, such that avoidance can interfere with useful opportunities for learning and processing. In other words, when an individual ignores negative emotions that are attached to a situation, they become less likely to engage in behavior that will enable them to learn, process, and better handle similar situations in the future. In fact, their ability to emotionally self-regulate may actually become worse, and resources are further reduced. On the other hand, if the individual was able to deploy his/her attention toward the situation at hand while simultaneously engaging in cognitive change that is conducive to finding a SoP in the situation, then a focus on the potential and EMSR may occur.

The Current Study

To build upon Gross's (1998) theory of emotion regulation strategies, the purpose of this study is to evaluate the effectiveness of SoP and FoP as specific attentional deployment/cognitive change strategies for EMSR in people under pressure (especially HSPs). Furthermore, this study will utilize an experimental methodology that will test the causal links between the strategies put forth and EMSR.

More specifically, I will test a moderated mediation model (see James & Brett, 1984) that evaluates the extent to which having a SoP in a high-pressure context

positively impacts an individual's ability to emotionally self-regulate through a FoP in the situation. Furthermore, the study will assess whether the relationship between FoP and EMSR is even stronger for individuals who are predisposed to becoming overwhelmed in high-pressure situations (i.e., HSPs).

CHAPTER II Methods

Participants and Sampling

Sample Size and Power. When attempting to identify the appropriate number of participants needed to detect significant relationships when they do exist (i.e., power), many considerations should be made. Without conducting a proper power analysis, sample sizes may not be high enough to detect effects that exist among all of the noise in the data (Thoemmes, MacKinnon, & Reiser, 2010). According to Cohen's (1988) rule of thumb, power should be greater than 0.80. To achieve this level of power, Preacher, Rucker, and Hayes (2007), advocate for at least 100 participants in each moderated mediation experiment when a medium effect size (i.e., .30 to .40) and 95% confidence interval is expected. However, Fritz and MacKinnon (2007) suggest at least 196 participants for mediation, suggesting some discrepancy.

A technique imposed by Thoemmes, et al., (2010) showed that a when using structural equation modeling (SEM) to test a moderated mediation where the effect size was believed to be medium, a sample of 400 participants was more than adequate. To help inform the appropriate sample size in the current study, a review of other studies that test moderated mediation models were assessed. In one study by Cole, Bedeian, and Bruch (2011), 460 participants were used to evaluate a mediation model where a moderator occurred on the a-path. In another study by Morgan-Lopez, and MacKinnon (2006), results were consistent with Fairchild and MacKinnon's (2009) suggestion for approximately 500 participants.

Given the various recommendations and examples, as well as the finding that approximately 15% of MTurk data will be excluded due to quality concerns (Harms & DeSimone, 2014), I recruited 457 participants.

Sampling. I recruited participants for the current study through a posting on Amazon's Mechanical Turk (MT) web platform. MT is an open, online marketplace where various work tasks are offered to individuals in return for a small amount of compensation. One main purpose of MT is to provide researchers with easy access to a large, stable, and diverse subject pool of participants, and decrease the amount of time it takes to conduct a study following theory development (Buhrmester, Kwang, & Gosling, 2011). Typical MT users consist of individuals who work full-time in a variety of occupations outside of MT (Mason & Suri, 2011), and have been shown to be more demographically representative of the U.S. population than in-person convenience samples (Berinsky, Huber, & Lenz, 2012). The criteria for participation stated that individuals must be at least 18 years old and be US citizens. I requested that participants be U.S. citizens to mitigate the potential of international cultural norms and values affecting the overall results of the study. For this study, participants were asked to complete an informed consent followed by a 15-minute survey, which resulted in compensation of \$1.20.

Design

The current design entailed a moderated mediation (James & Brett, 1984), such that the strength of the indirect effect (i.e., the percentage of SoP that goes through FoP to reach EMSR) depends on the level of the moderator (i.e., SPS). Before beginning to

introduce methodology regarding the moderator however, specific steps were taken to infer causation in the mediated relationship between SoP and EMSR.

To most accurately evaluate the extent to which having a SoP in a situation positively impacted a person's FoP and EMSR, Stone-Romero and Rosopa (2011) suggest that two experiments should be conducted for strengthening causal inferences. In the first experiment, I provided a scenario to participants that should theoretically evoke a high sense of pressure. Following the scenario, the independent variable (IV; i.e., SoP) was manipulated with an additional paragraph, and its effect on the mediator (i.e., FoP), moderator (i.e., SPS), and dependent variable (DV; i.e., EMSR) were measured (see Appendix A). In the second study, the same scenario was presented, and FoP (i.e., the mediator) was manipulated with an additional paragraph, followed by measurement of the DV (i.e., EMSR) and moderator (i.e., SPS; see Appendix B).

With regards to the manipulations in the first and second experiment, the first experiment was comprised of two conditions: (a) absence of SoP, and (b) SoP, such that half of the participants received a prompt that provided them with a SoP for the high-pressure situation, and the other half did not receive the prompt. The second experiment also included two conditions: (a) absence of FoP, and (b) FoP, such that half of the participants received a prompt that provided them with a focus on the specific areas of potential in their high-pressure situation, and the absence of FoP group did not receive the prompt. Manipulation checks were conducted for each study.

Procedure

This study entailed two experiments. Between the two experiments were four conditions: two for the manipulation of the IV (SoP), and two for the manipulation of the

mediator (FoP). First participants were randomly assigned to one of four conditions through a special function in the Qualtrics survey platform, and were provided with a scenario that described a stressful situation that they are hypothetically facing (see Appendix A & B). In the scenario, participants were told to do their best to put themselves in the shoes of the person being described, and the language reflected the person reading the scenario (e.g., your children have the flu, etc.). In the scenario, the individual was having a difficult week where his/her children had the flu, they had not received much sleep, work demands were increasing, their email box was overflowing, and someone had just challenged his/her competence in an important meeting by calling him/her out in front of the group. Following the scenario, the appropriate variables were manipulated and measured (see Table 1).

Experiment 1

For the first experiment, 114 participants were randomly assigned to condition A (57% female), and 110 to Condition B (50% female). All participants were provided with a scenario that described a high-pressure situation in which they were asked to imagine as if it was happening to them. Following the scenario, half of the participants were provided with an additional paragraph that walked them through the process of stopping for a moment, connecting to some deeper aspect of themselves, and identifying their SoP in the situation (which was to get their proposal approved so hundreds of thousands of dollars can go toward educational and healthcare resources for children living on the streets). The other half of the participants for the first experiment did not receive this additional paragraph (i.e., absence of SoP group).

Measures.

Focus on the Potential. To fit the context of the current research, a 5-item contextualized measure was created based on components of related constructs such as *learning-goal orientation* (Boyle & Klimoski, 1995), *hope* (Snyder, Harris, Anderson, Holleran, Irving, Sigmon, et al., 1991), *grit* (Duckworth, Peterson, Matthews, & Kelly (2007), and *potential focus* (Blackshire, Hickory, & McKenna, 2015; McKenna, 2010; see Appendices A & B). The 5-item scale was utilized to measure the extent to which individuals were not focused on the negative aspects of the situation at hand, but instead were focused on the potential to be gained. Example items include, “I have a clear focus on overcoming setbacks to conquer the challenge at hand,” and “I see obstacles as information that will help me to solve problems.” Participants were asked to rate each item on the extent to which they agreed utilizing a scale that ranged from 1 (*not like me at all*) to 7 (*very much like me*). Cronbach’s alpha coefficient for the measure in the current study was .90 - .91.

SPS. The 27-item SPS scale (Aron & Aron, 1997) was utilized to measure the trait of SPS in individuals. Examples include, “Do you get rattled when you have a lot to do in a short amount of time?” and “Are you easily overwhelmed by things like bright lights, strong smells, coarse fabrics, or sirens close by?” Participants were rated as to how they generally felt on a seven-point scale from 1 (*not at all*) to 7 (*extremely*; see Appendices A & B for all included items), such that higher values reflect higher sensitivity. Cronbach’s alpha coefficient of this measure has been reported as 0.80 (Smolewska, McCabe, & Woody, 2006) and 0.71 – 0.87 (Ahadi & Basharpour, 2010). Cronbach’s alpha coefficient for the measure in the current study was .92 - .93.

EMSR. Because several of the commonly accepted measures for EMSR appear to measure the *ways* in which people self-regulate (e.g., cognitive reappraisal, expressive suppression; Gross & John, 2003), rather than the extent to which the emotions are (or are not) regulated, the scale that was utilized in the current study was a contextualized adaption to Gross and John's (2003) measure and an EMSR measure by McKenna (2010) and Blackshire, et al. (2015). Example items include, "In the midst of the high-pressure situation, I was able to keep my cool," and "I was able to stand in the middle of the storm and remain calm even when my interactions with others got stressful." Participants were rated as to how they generally felt on a seven-point scale from 1 (*not at all*) to 7 (*extremely*; see Appendices A & B for all included items), such that higher values reflect higher levels of EMSR. Cronbach's alpha coefficient for the measure in the current study was .95 - .97.

SoP Manipulation Check. To ensure that participants received and internalized the SoP prompt, they were asked to provide written and likert-scale responses. First, participants who received the manipulation were asked to describe their SoP in the situation by writing in an open text box. The purpose of this step was to strengthen the manipulation by enabling participants to better internalize and process the SoP that was provided to them. This qualitative data was not analyzed for the current study, but was reviewed to ensure that participants were taking the survey seriously. Fortunately, all participant responses included content that was relevant for the study.

Secondly, because SoP was contextualized to the scenario and not the overall life purpose that is the focus of many established scales (e.g., Crumbaugh & Maholick, 1964), various purpose and meaning scales that have undergone validation were not

appropriate for evaluating SoP for the current scenario. Therefore, five items that were drawn from McKenna (2010) and Blackshire, et al.'s (2015) SoP scale as well as Crumbaugh and Maholick, (1964) Purpose in Life (PIL) scale were adapted and used. Example items include, "I was able to stay true to my greater purpose, even in the midst of chaos," and "No matter how stressful the situation was, I knew why I was there." Participants were rated as to how they generally agreed with the statements on a seven-point likert scale from 1 (*not at all*) to 7 (*extremely*; see Appendices A & B for all included items), such that higher values reflect a higher SoP. Cronbach's alpha coefficient for the measure in the current study was .86.

To statistically evaluate the success of the manipulation check, I conducted a *t*-test to evaluate significant differences in SoP between participants who received the purpose manipulation and those who did not. I expected that mean scores for the purpose group would be significantly higher than scores for the control group.

Experiment 2

To evaluate the extent to which a focus on the potential of the situation significantly causes a person to better emotionally self-regulate, participants received the same scenario as they did in the first experiment (i.e., a person is experiencing a very stressful week with deadlines piling up, children being sick, etc., and to top it all off someone has just challenged the person's competence in a very important meeting), followed by a manipulation of FoP (see Table 1 for a description of manipulations and variables measured for experiment two).

For the second experiment, 120 participants were randomly assigned to condition A (55% female), and 101 to condition B (45% female). Participants in condition A

received a paragraph following the scenario that provided them with details about what it looks like to focus on the potential of the current situation, and participants in condition B received no additional information following the scenario.

Measures.

EMSR. As mentioned in the first experiment, several of the commonly accepted measures for EMSR appear to measure the ways in which people emotionally self-regulate (e.g., cognitive reappraisal, expressive suppression; Gross & John, 2003), rather than the extent to which the emotions are (or are not) regulated. Therefore, the same measure that was used in Experiment 1 was used for Experiment 2.

SPS. The same 12-item version of Aron and Aron's (1997) SPS measure that was used in the first experiment was also utilized to measure the trait of SPS in individuals in Experiment 2.

Focus on the Potential Manipulation Check. To ensure that participants received and internalized the FoP prompt, they were asked to provide both written and Likert-type responses. First, participants who received the manipulation wrote in a text box what they saw to be the potential in the situation (e.g., to move beyond the problems and ask questions that will help to gain more information for success). The purpose of this step was to strengthen the manipulation by enabling participants to better internalize and process the potential that is to be seen in the current situation. Once again, this data was not analyzed in the current study. However, it was reviewed to ensure that participants were taking the survey seriously. Fortunately, all participant responses included content that was relevant for the study.

For the Likert-scale responses, all participants (from conditions A and B) were asked to respond to the same contextualized 5-item measure of FoP that was used in the first experiment. To evaluate the effectiveness of the FoP manipulation, an independent samples *t*-test was conducted that tested for significant differences in the means of FoP scores between participants in condition A who received the manipulation, and those in condition B who did not receive the manipulation.

CHAPTER III Results

Pilot Test Results

Prior to conducting the full study, a pilot test was conducted with 57 participants through Amazon.com's Mechanical Turk platform (52.6% female). The main purpose of the pilot test was to ensure that the manipulations for study 1 (i.e., SoP) and study 2 (i.e., FoP) were having the desired impact on their respective scales. Requirements to participate consisted of being over 18 years old and a U.S. citizen. I requested that participants be U.S. citizens to mitigate the potential of international cultural norms and values affecting the overall results of the study. The pilot test methods were identical to those described above for the full study (i.e., recruitment strategy, measures, random assignment into conditions, etc.). Participants were randomly assigned into one of four conditions across two studies, and were measured across the study variables displayed in Table 1.

Pilot Manipulation Check Results.

Study 1. In the pilot test, twenty-nine individuals were randomly assigned to participate in the first study, and were subsequently randomly assigned to either the control (absence of SoP) or experimental condition (SoP). Results from the Study 1 pilot test indicated that the SoP manipulation was effective. Individuals who received the SoP paragraph scored significantly higher on the SoP scale than those who did not receive the paragraph, $t(16.52) = -5.19, p < .01$. The means were 6.17 for the experimental group and 4.38 for the control group (see Figure 3). Furthermore, the effect size for the difference between the two groups was measured with the Cohen's d statistic, and suggested high practical significance, $d = 2.06$.

Study 2. Twenty-eight individuals were randomly assigned to the second study, and were subsequently randomly assigned to either the control (absence of FoP) or experimental condition (FoP). Results indicated that the FoP manipulation was also effective. Specifically, individuals who received the FoP paragraph scored significantly higher on the FoP scale, $t(25.52) = -4.20, p < .01$ than those who did not. The means were 5.68 for the experimental group and 3.68 for the control group (see Figure 4). Furthermore, the effect size for the difference between the two groups was measured with the Cohen's d statistic, and suggested high practical significance, $d = 1.46$.

Main Study: Preliminary Analyses

Missing Data. Upon completion of the pilot test, data were collected and analyzed from a total of 457 participants. To ensure that participants did not take the survey twice, IP addresses were evaluated and checked for doubles. If duplicates were found, the first response was kept and the second one was deleted. Ten total cases were deleted due to doubles, and two additional cases were deleted because participants admitted to not taking the survey seriously. The final number of participants was 445 (52% female). Additional steps were taken to evaluate the quality of the data, including an item-level missingness analysis.

Surprisingly, Study 1 consisted of 0% missing data, and Study 2 consisted of only two item-level missing data points (both from the SPS scale; .90% missing in total). To address the two instances of missing data, I created the SPS variable to require that 25 (out of 27) items must be answered for that case to count toward the overall data analyses.

Checking Assumptions. Because the current set of experiments contain both mediation and moderation, several assumptions were checked. According to MacKinnon Fairchild, and Fritz (2007), the following assumptions should be met for mediation: (a) homogeneity of variance, (b) no interaction between the independent variable and the mediator in predicting the DV (c) reliable measures, and (d) no misspecification of causal order, direction, and that there are no unmeasured mediators causing the observed effect.

Homogeneity of Variance. To test the first assumption, I utilized Levene's test of homogeneity of variance. In Study 1, I compared the variance in FoP between the two conditions (i.e., absence of SoP and SoP). Results indicated a violation of the Levene's test, $7.33, p < .01$. To correct for this, variances not assumed statistics were used to obtain study results. In Study 2, I compared the variance in EMSR between the two conditions (i.e., absence of FoP and FoP). These results did not indicate a violation of Levene's test of homogeneity of variance, $4.03, p = .05$.

No Interaction Between IV and Mediator in Predicting DV. I checked the second assumption by conducting a linear regression from Study 1 data to ensure that FoP was not moderating the relationship between SoP and EMSR. Specifically, EMSR was regressed on to the two conditions of the SoP variable (i.e., absence of SoP and SoP) with the observed FoP variable serving as the moderator. Results surprisingly indicated that a significant interaction did exist, $b = -.28, p < .01$. Utilizing Hayes' (2013) PROCESS program to obtain more detail, results indicated that SoP significantly impacted EMSR at low levels of FoP, $b = 1.11, p < .01$, and at medium levels of FoP, $b = -.73, p < .01$. However, no significant relationship existed between SoP and EMSR at high levels of FoP, $b = .35, p = .07$ (see Figure 5 and Table 2).

Theoretically, it is likely that FoP is not the real moderator, but simply appears as such due to its possible correlation with *baseline FoP*. Baseline FoP is an individual difference variable that is conceptualized as one's propensity to FoP when one is faced with a stressful situation. These results are likely a product of what MacKinnon et al. (2007) discusses as *mediator baseline by treatment effect*. The authors suggest that the effects of a given intervention (i.e., SoP) are sometimes stronger for people who have low baseline scores on the mediator when they enter the study (i.e., people with low baseline levels of FoP). Furthermore, the authors suggest that information obtained from such models can help indicate for whom the intervention will be most effective and ineffective. In this case, it appears that people with a low proclivity to FoP in stressful situations would be prime candidates for a SoP intervention.

There is strong theoretical evidence that the IV and mediator are not actually interacting to predict the DV in the population, but instead only appear to be in my sample by virtue of the mediator being correlated with baseline levels. In other words, my model was mis-specified because it failed to account for a treatment-by-baseline interaction. Because I do not believe that FoP is the real moderator in the model, I chose to continue with the original model and hypotheses even though the assumption was violated. Furthermore, Jacoby and Sassenberg (2011) suggest that when the proposed mediator is shown to also moderate the direct effect, the researcher should not strictly rule out the current model, but instead use the information to contribute to future model specification as a program of research.

Reliable Measures. For the third assumption, I conducted a reliability analysis for each measure by assessing Cronbach's alpha statistic. For Study 1 and 2, all measures

showed adequate reliabilities above .80. See Table 3 for reliabilities, means, standard deviations, and inter-correlation coefficients from Study 1, and Table 4 for Study 2.

No Misspecification of Causal Order. With regards to the fourth assumption (model specification), I designed the study so that the causal order and direction would be clear by conducting two experiments where the IV and mediator were manipulated. Furthermore, random assignment of participants into conditions was an appropriate way to mitigate the threat of confounds (Shadish, Cook, & Campbell, 2002).

Manipulation Checks

Study 1. To ensure that individuals who received the SoP manipulation scored significantly higher on the SoP measure than those who did not receive the manipulation, I conducted an independent samples *t*-test to evaluate group differences on the SoP measure. The equal variance not assumed statistic was used because there was a violation of Levene's test for homogeneity of variance, 22.63, $p < .01$. Results from the *t*-test indicated that the manipulation was successful, $t(192.59) = -11.98$, $p < .01$ (see Figure 6). Furthermore, the effect size for the difference between the two groups was measured with the Cohen's *d* statistic, and suggested high practical significance, $d = 1.60$.

Study 2. To ensure that individuals who received the FoP manipulation scored significantly higher on the FoP measure than those who did not receive the manipulation, I conducted an independent samples *t*-test to evaluate group differences on the FoP measure. The equal variance not assumed statistic was used because there was a violation of Levene's test for homogeneity of variance, 9.14, $p < .01$. Results from the *t*-test indicated that the manipulation was successful, $t(217.22) = -11.84$, $p < .01$ (see Figure 7).

Furthermore, the effect size for the difference between the two groups was measured with the Cohen's d statistic, and suggested high practical significance, $d = 1.58$.

Testing Hypothesis 1: SoP Impacting FoP

It was hypothesized that having a SoP would significantly impact the extent to which a person focused on the potential of a high-pressure situation. Before testing the hypothesis, I conducted Levene's test for homogeneity of variance to evaluate potential differences in the variance of FoP across the two groups. Results indicated a violation of the Levene's test, $7.34, p < .01$. Subsequently I conducted an independent samples t -test to evaluate mean differences in FoP between the two conditions (i.e., absence of SoP and SoP) using the equal variance not assumed statistic. Hypothesis 1 was supported, suggesting that individuals who were given a SoP showed a significantly greater FoP than those who were not, $t(209.13) = -5.26, p < .01$ (see Figure 8).

Testing Hypothesis 2: Mediation

Hypothesis 2 states that the relationship between SoP and EMSR is mediated by FoP. Per the recommendation of Stone-Romero and Rosopa (2008), I conducted two experiments to test this hypothesis. In the first experiment, SoP was manipulated and FoP and EMSR were measured to establish causality for the 'a' path. In study 2, FoP was manipulated and EMSR was measured to establish causality for the 'b' path.

To obtain the pattern of results for the mediation, I first regressed the mediator (FoP) on to the dichotomous independent variable (conditions = absence of SoP, and SoP) from Study 1. Results indicated a significant 'a' path, $b = .89, t = 5.23, p < .01$. In other words, as participants went from not having a SoP to having one, their FoP scores increased by .89 units (on a 1-7 scale). Subsequently, I regressed the dependent variable

(EMSR) on to the dichotomous mediator (conditions = absence of FoP, and FoP). Results also indicated a significant 'b' path, $b = 1.11$, $t = 5.88$, $p < .01$, suggesting that as participants went from not having a FoP to having one, their scores on EMSR increased by 1.11 units (on a 1-7 scale). Lastly, I calculated the total effect ('c' path) by regressing EMSR on the dichotomous SoP variable from Experiment 1 data (ignoring the mediator). Results indicated a significant total effect, $b = 1.18$, $t = 7.18$, $p < .01$.

Before estimating the indirect, mediated effect, it is important to evaluate the distributions of the observed mediator in Experiment 1 and the manipulated mediator (as measured by the manipulation check) in Experiment 2 for similarity. If the distributions significantly differ from one another, the likelihood of range restriction on one of the paths could occur. To test the two distributions, I employed the Kolmogorov-Smirnov test. Results indicated that the two distributions were not significantly different from one another, $D = 1.25$, $p = .09$.

After confirming that the distributions of the observed and manipulated mediator were similar, the indirect (mediated) effect was calculated by multiplying the regression coefficient from the 'a' path (.89) by the coefficient from the 'b' path (1.11), for a resulting indirect effect of .99. Therefore, of the 1.18 points gained in EMSR for each additional unit increase in SoP (total effect; Likert Scale of 1-7), .99 of those points went through FoP. Furthermore, the direct effect (i.e., relationship between SoP and EMSR, controlling for FoP) was calculated by subtracting the indirect effect (.99) from the total effect (calculated from Experiment 1; 1.18) for a resulting direct effect value of .19. Lastly, the Sobel test was conducted, and indicated a significant indirect effect, $z = 3.91$, $p < .01$ (See Figure 9).

Testing Hypothesis 3: Moderation

Hypothesis 3 states that relationship between FoP and EMSR is moderated by SPS. Because the FoP variable was dichotomous (conditions = absence of FoP, and potential), Aguinis' (2009) ALTMMR program was used to evaluate homogeneity of error variance (i.e., homoscedasticity) for the relationship between SPS and EMSR within both conditions of FoP. DeShon and Alexander's (1996) rule of thumb for homoscedasticity was met, $M = 1.93$, $p = .16$.

Subsequently, I used Hayes' (2013) PROCESS program to evaluate the moderation. Although results indicated that SPS was predictive of lower levels of EMSR, $b = -.32$, $t = -3.39$, $p < .01$, a significant moderation was not found, $b = .29$, $t = 1.50$, $p = .13$ (see Figure 10 and Table 5). Therefore, the third hypothesis was not supported. Specifically, the relationship between FoP and EMSR is always positive and significant, regardless of the level of one's SPS. Because the moderation was not significant, the fourth hypothesis (conditional indirect effect) was not tested.

Evaluating Discriminate Validity: Exploratory Factor Analysis (EFA)

Because several of the scales (i.e., SoP, FoP, and EMSR) were adapted and contextualized for the purpose of the current study, I evaluated the structural validity of those measures to establish discriminate validity (Clark & Watson, 1995). More specifically, I conducted an exploratory factor analysis (EFA) to evaluate the extent to which the new measures from Study 1 and 2 exhibited a pattern of loadings on their appropriate factors that would be consistent with discriminate validity.

Study 1 EFA. For Study 1, an EFA was conducted with an oblique rotation (promax) based on Field's (2013) suggestion that variables are more likely to be related

on some level than completely independent. The Kaiser-Meyer-Olkin (KMO) test was initially run to ensure sampling adequacy for each variable in the model, and the results indicated that the data were adequately suited for factor analysis, $KMO = .94$. Before evaluating EFA results, Bartlett's sphericity test was conducted to ensure that the observed correlation matrix diverged significantly from the identity matrix (theoretical matrix). Results indicated a significant difference, $\chi = 2935.25, p < .01$, suggesting that EFA can efficiently be conducted. The number of factors extracted was set to three based on a priori theory that the three study variables (i.e., SoP, FoP, and EMSR) would load onto their respective factors. Small coefficients ($> .30$) were suppressed for the ease of evaluating results. EFA results obtained from the pattern matrix indicated that the three variables exhibited discriminate validity, and loaded together on their respective factors as hypothesized. No statistically meaningful cross-loadings ($> .32$) existed among the variables, and all variables exhibited statistically meaningful factor loadings ($> .32$; Tabachnick & Fidell, 2007). See Table 6.

Study 2 EFA. For study 2, EFA once again included an oblique rotation (Promax). The KMO test indicated adequate sampling for EFA, $KMO = .940$. The number of factors extracted were set to two based on a priori theory that the study variables (i.e., FoP, and EMSR) would load onto their respective factors. Bartlett's test of sphericity suggested that EFA can be efficiently conducted, $\chi = 2557.14, p < .01$.

As expected, results indicated that the two variables loaded highly onto their respective factors with no significant cross-loadings (See Table 7), providing evidence for discriminant validity.

Supplemental Analyses: SPS as a Moderator on the ‘a’ Path

Because the relationship between SPS and EMSR differed between the control, $r(112) = -.32, p < .01$ and experimental groups, $r(108) = -.06, p = .53$ in Study 1, I had reason to believe that SPS may still be playing a role even though it was not moderating the ‘b’ path as expected. The original theoretical argument for the moderation on the ‘b’ path was based on the notion that people with high levels of SPS would benefit most from a focus on the potential because their depth and breadth of cognitive and emotional processing would be focused on something positive (rather than negative). I believed that because they tend to be better attuned to stimuli than others, shifting to a focus on the potential (rather than problems) might drastically change their emotional experience for the better. However, data indicated that when focused on the potential, all people are equally better at emotionally self-regulating.

Instead of assuming that SPS had no place in the current model, I chose to test SPS as a moderator on the ‘a’ path based on the argument that narrowing down the stimuli through a SoP may be more helpful for an HSP than focusing on potential. Perhaps SoP was the real factor that gives an HSP the differential capacity to filter out stimuli that are not germane to a particular situation at hand and focus on potential better than non-HSPs. A further discussion of theoretical rationale will be provided in the discussion section.

Because SoP is a dichotomous variable (conditions = absence of SoP, and SoP), I used Aguinis’ (2009) ALTMMR program to evaluate homoscedasticity for the relationship between SPS and FoP within both conditions of SoP. DeShon and Alexander’s (1996) rule of thumb for homoscedasticity was not met, $M = 6.24, p < .01$.

When the homoscedasticity assumption is violated for predictors of a moderation, the biased standard errors can sometimes lead to false conclusions about the significance of the coefficient. To correct for the violation, James's test was used to evaluate the simple slopes of the moderation. Results indicated that differential slopes were present, $U = 5.57, p < .05$. Alexander's test also indicated differential slopes, $A = 5.47, p = .02$. These results suggest that SPS moderated the relationship between SoP and FoP (i.e., a moderation on the 'a' path).

Furthermore, I used Hayes' (2013) PROCESS program to test the interaction and obtain more information regarding the nature of the interaction. Not surprisingly, results failed to indicate a significant interaction, $b = .27, t = 1.69, p = .09$ due to heteroscedasticity. However, the effect size of the relationship between SoP and FoP does tend to increase as one's level of SPS goes up (see Table 8 and Figure 11). In other words, people with higher levels of SPS appear to benefit even more from a SoP than others. Their level of FoP increases at a differential rate than non-HSPs. See Figure 12 for the final study model.

Summary of Results

Results indicated that the relationship between SoP and EMSR appears to be mediated by FoP. Furthermore, the relationship between SoP and FoP is moderated by SPS, such that individuals with high sensitivity are propelled into a FoP at higher rates than non-HSPs when given a purpose. HSPs benefit the most from receiving a SoP, perhaps because it helps them to ignore irrelevant stimuli, thereby freeing up resources to work through the stressful situation in a productive manner. Furthermore, EFA and

reliability analysis results indicated that the study scales exhibited discriminate validity and adequate internal consistencies.

CHAPTER IV

Discussion

The purpose of the current study was to contribute to a program of research intended to identify strategies for EMSR in HSPs. It is my hope that the results of this research will yield practical strategies for coaching individuals to improve their EMSR, particularly for HSPs for whom maintaining clarity of focus and intent in stressful situations is especially challenging. The overall goal is to create cultures in the workplace, home, community, and society where people are in tune with what is important to them, and can overcome the paralysis associated with being overwhelmed as they seek to carry out their societal roles and activities.

Carl Jung stated, “until you make the unconscious conscious, it will direct your life and you will call it fate.” I believe that the importance of EMSR goes beyond the health of a person, and is crucial for the health of society. People are not living within vacuums, but instead, are part of a larger system. As individuals seek to carry out roles/activities in their daily lives, maintaining SoP, FoP, and EMSR puts them in the driver’s seat of their lives and allows them to engage in high-performance behavior through logical processing and intention (Lieberman, 2013; Niles et al., 2015).

Sense of Purpose Enables Focus on Potential During High-Pressure Times

The findings of the current study indicated strong, consistent support for some hypotheses, as well as raising questions and revealing opportunities for further research. For the first hypothesis, I found that people who received a SoP in the high-pressure situation tended to focus on the potential of the situation more so than those who did not receive the purpose. These results are consistent with those in the realm of resource theory (Hobfall, 1989, 2001) and goal-setting theory (Locke & Latham, 2002). Clear and

meaningful goals are shown to serve as internal resources that serve a directive function for a person. Through this function, a person's attention and awareness is directed toward goal-relevant activities and opportunities that ultimately lead to goal completion.

Similarly, I believe that when a person receives a SoP, their attention is drawn away from the plethora of irrelevant stimuli and toward the potential in the situation that aligns with their purpose.

Measuring Additional Variables that Interact with SoP to Predict FoP.

Furthermore, results indicated differences in error variances between the group of participants who received a SoP and those who did not. This may be a result of other variables impacting the way a person responds to being given a SoP. When given a purpose, individual traits or experiences could potentially interact with that purpose and result in differences across groups. For example, variables such as self-efficacy, goal commitment, importance of the goal, feedback, and task complexity have all been suggested to moderate the relationship between goal setting and performance, such that a person with higher levels of each will be more likely to accomplish the goal at hand (Locke & Latham, 2002).

In future research, I recommend that additional variables that may interact with SoP to predict FoP be measured. In addition to the moderators discussed by Locke and Latham (2002), I am specifically interested in measuring the extent to which a person is deeply aware of their SoP. Previous studies have shown that the extent to which a person can imagine their future self with a high level of salience and elaboration impacts the steps they take to become that future self (Strauss, Griffin, & Parker, 2012). In a similar

way, I would like to measure salience and elaboration of SoP as it pertains to FoP and EMSR in future studies.

Furthermore, I suggested in the results section that the proposed mediator (FoP) appeared to moderate the relationship between SoP and EMSR as a result of *mediator baseline by treatment effect* (MacKinnon et al., 2007). Per the recommendation of Jacoby and Sassenberg (2011), I recommend that future researchers contribute to future model specification by replicating the current study with the additional measurement of baseline FoP. I believe that if this variable is measured and controlled for, FoP would not moderate the relationship between SoP and EMSR, but would instead serve solely as a mediator between the IV and DV.

The Source of Purpose May Matter. Interestingly, SoP and FoP were given to participants in this study. Results from the goal-setting literature suggest that people perform just as highly when goals are given to them as when they come up with them on their own (Locke & Latham, 2002). However, it is unclear from the current study how a person may behave if no one is around to provide them with a purpose. In the midst of a heated argument, or a high-pressure meeting, a person may not have the luxury of talking with his/her coach or mentor. In this situation, the person would need to be competent in engaging in the forethought necessary to identify his/her own purpose in that moment.

“Forethought” is described by Bandura (2001) as a core feature of the phenomenon of human agency (that which makes life worth living). He argues that by observing others, people learn to set goals, anticipate outcomes, and create courses of action as a way of experiencing meaning in one’s life. Through the human agency lens, the extent to which a person can engage in the forethought necessary to identify a

purpose would depend upon the extent to which he/she has observed someone else go through the process of identifying a purpose. Therefore, the extent to which a person would be able to identify their own purpose in real time may strongly depend on life experiences, upbringing, education level, etc.

Future research should explore effective ways that people learn the steps involved in identifying their own purpose. Example interventions may occur on several levels, and include: (a) providing reading material that discusses steps for identifying one's purpose, (b) matching people up with coaches/mentors that model purpose-identifying behavior, and (c) conducting workshops that teach people how to identify their purpose in various situations. Following these interventions, people could be placed in a real-life stressful situation where they are asked to identify their SoP and are subsequently measured on FoP and EMSR.

Providing these three levels of intervention (along with a control group) may greatly benefit this program of research by identifying the best ways to push people in to developing a SoP and subsequently emotionally self-regulating on their own. Lastly, it will be important to evaluate the comparison between a self-developed SoP and a given SoP on a person's levels of FoP and EMSR.

Sense of Purpose Impacts Emotional Self-Regulation Through Focus on Potential

A strong contribution of this study is that, in line with recommendations by Stone-Romero and Rosopa (2011), two experiments were conducted in order to more strongly infer causality on both the 'a' and 'b' paths of the mediation. In addition to observing significant relationships on both paths, I found that a significant portion of the positive impact of SoP on EMSR occurs through FoP. In a given situation, Cooperrider et al.

(1999) argues that there is always potential to be realized, and that it is up to the individual to ask the right question that will unlock the potential that exists in reality. Once the potential is unlocked, the focus shifts away from problems and toward positive solutions. Through Cooperrider's lens, I believe that when a person tunes in to his/her SoP, attention is directed away from uncontrollable stimuli that can elicit the fight or flight response, and toward the potential that allows for the emotions to relax.

Research by Fredrickson (2001) suggests that people develop additional resources during states of positive emotion that lead to *positive emotional spiraling*. In the current study, SoP is conceptualized as a resource that helps to propel a person into EMSR. Assuming that EMSR entails a positive emotional state, it may be argued that the current study model is cyclical. Perhaps a SoP leads to a FoP, and subsequently to EMSR, at which point one's neurological networks are expanded and identification of greater SoP occurs. This phenomenon is consistent with work by Fredrickson and Joiner (2002), which suggests that positive emotions initiate upward spirals through a broadening of attention and cognition.

Although modern statistics may not be conducive to directly measuring cyclical relationships, researchers such as Fredrickson and Joiner (2002) have identified ways to provide some evidence through creative mediation designs. The authors showed that initial positive affect significantly impacted broad-minded coping, which in turn further impacted positive affect. To expand the findings of the current study, future research may include multiple mediation designs to explore positive emotional spiraling in the context of SoP, FoP, and EMSR. For example, an elaborate mediation design may include initial SoP impacting FoP and EMSR, which in turn further impacts SoP, FoP, and EMSR.

Theoretically, a person may be better able to identify and focus on their SoP if their emotions are well regulated, which may contribute to a heightened cycle of FoP and even greater levels of EMSR.

Sensory-Processing Sensitivity is Important to Consider: But Not as Expected

Due to their tendency to become overwhelmed in high-pressure situations, I hypothesized that HSPs would benefit from a FoP at differential rates than non-HSPs. As mentioned in the results section, this was not the case. Instead, supplemental analyses indicated that a SoP was the variable that actually distinguished HSPs from non-HSPs.

Understanding SPS and the Importance of SoP. In the initial moment of pressure, a SoP may be the real “cue” that differentially directs attention away from the many problems of which HSPs are aware and shifts their focus toward potential. Because HSPs are sensitive to many things that are going on at a given point in time, a high-pressure situation may cause an HSP’s focus to be pulled deeply into the problems at hand (as evidenced by lower scores on EMSR).

Neurological research has shown through fMRI scans that HSPs exhibit increased activity in brain regions involved in awareness, integration of sensory information, empathy, and action planning (Acevedo, Aon, Aron, Sangster, Collins, & Brown, 2014). Therefore, in the midst of a high-pressure situation, an HSP may feel so frazzled that he/she becomes paralyzed to adaptively handle the situation. At the onset of a high-pressure situation, HSPs may experience more cognitive depletion than non-HSPs because they are taking in more stimuli, resulting in less of an ability to focus one’s attention and emotionally self-regulate. Therefore, identifying one’s SoP may help HSPs

to filter out all of the irrelevant stimuli and better focus their attention on potential at hand.

Whereas results from the first experiment suggest that SoP is important for HSPs in terms of focusing on potential and ultimately emotionally regulating, results from the second experiment suggested that HSPs may be able to bypass SoP and directly target FoP for more efficient EMSR.

Should HSPs Skip SoP and Directly Target FoP for EMSR? Once HSPs are focused on potential (rather than problems), they tend to emotionally self-regulate equally to non-HSPs. An implication for the current study is that HSPs can reach EMSR through two routes: (a) an indirect route of identifying one's SoP, from which HSPs are differentially pushed into FoP in comparison with non-HSPs, and subsequently pushed in to EMSR at equal rates with non-HSPs, and (b) a direct route of shifting one's focus to potential by identifying where the potential exists in the situation.

Whereas SoP and FoP are shown to be separate constructs with SoP leading to FoP, they share variance with regards to "filtering out irrelevant stimuli." Results from this study suggest that HSPs may be able to skip the SoP step entirely and jump directly to identifying and focusing on where the potential exists in the situation. However, I believe that something might be lost if HSPs are not also encouraged to identify their SoP. Whereas results from the second experiment suggest that FoP alone propelled HSPs into EMSR equal to non-HSPs, adaptive experiences that emerge from knowing one's SoP were not measured. Therefore, it is unclear what could be lost by skipping SoP and directly targeting FoP as a strategy for EMSR in HSPs. For example, a SoP may impact

the extent to which a person can persevere through long-standing pressure and continue to have a FoP over time.

Because a vignette was used to create an experience for the participants, their experience with the high-pressure situation was short-lived (15 minutes at most). To best understand what is needed for HSPs (and all people) to emotionally self-regulate in high-pressure situations, future researchers should investigate the disparate impact that SoP and FoP have on a person's ability to emotionally self-regulate over time. Perhaps a FoP is sufficient for EMSR in the short-term, but a strong SoP is necessary for long-term perseverance.

Furthermore, the mechanisms by which a SoP may impact a person's perseverance should also be identified and measured. For example, perhaps having a SoP is associated with spiritual beliefs for some participants. Extensive research has suggested that individuals who believe in a higher power are better able to manage a variety of stressors on average (Koenig, 2012). An HSP's belief in something larger than themselves as it pertains to SoP was not measured in the current study, so it is unclear how these variables may be interacting to produce outcomes. Therefore, future researchers should seek to better understand the concept of SoP as it relates to religion and spirituality, long-term perseverance, and other factors.

Beyond the Results: The Power of Priming

In addition to results derived through hypothesis testing in the current study, I found that a person's FoP and level of EMSR could be manipulated by priming them with a SoP and/or FoP. In traditional language, the term *priming* often refers to some stimulus that occurs first in time and/or prepares something for use or action. For

example, a construction worker may prime surfaces with an acrylic based liquid to improve adhesive strength of paint. Through a psychological lens, a therapist may prime a patient with words of encouragement or hope as the patient leaves the office and heads back to their daily routine. Some may argue that every person we come into contact with may somehow be priming us to future action.

We live in an inter-connected world where family members, friends, co-workers, strangers, and the media are often providing us with their opinions. Many of these people tell us what we “should do” in our lives. Although hypothetical in nature due to the use of vignettes, results from the current study suggest that people’s focus and emotional states can be impacted by the ways in which they are being primed. These results are consistent with an array of previous research suggesting that primes can prepare the mind’s canvas for perception, thinking and behavior (e.g., Chen & Bargh, 1999; Higgins, Rholes, & Jones, 1977; Storms, 1958).

Furthermore, the variables measured in this study may potentially be occurring *collectively*. For the purpose of this discussion, collectively refers to the extent to which the lives and experiences of people are intertwined. In addition to common anecdotal stories of walking into a room and “feeling a vibe” or “being affected by someone’s mood,” modern science has suggested that cognitive and emotional responses can be shared by groups of people by way of neurological mirroring (Harada, Hayashi, Sadato, & Iidaka, 2016), and other physiological mechanisms (e.g., McGraty, 2010).

For example, when Person A identifies a SoP, it may also impact the FoP and EMSR of Persons B and C who are in close proximity or relationship to Person A. Once Persons B and C have been impacted, they may in turn re-prime or strengthen the SoP of

Person A and others, and continue the cycle within their collective system. When considering the impact of this potential phenomenon on families, the workplace, and the community, it becomes of utmost importance to ensure that as many people as possible are priming themselves and others for good.

Aligning Primes with Ultimate Purpose. The primes that I used in the current study were “morally” constructed, such that individuals were primed with a SoP or a FoP that was directly related to helping children that were living in poverty. I chose this type of prime because my theological/philosophical assumption is that humans exist under the “law of human nature,” a concept put forth by Lewis (1952). The law of human nature is grounded in the existence of a moral law or standard, which has been interwoven into creation and the hearts of human beings by the creator (or source). As opposed to other laws of nature (e.g., gravity), the law of human nature is the only law that humans can choose to obey or disobey.

Scientists such as Collins (2006; head of the Human Genome Project) have posited that the law of human nature has been embedded in to the biological structure of human beings. Some individuals may refer to this concept in more religious terms by calling it “made in the image of God.” Lewis (1952) and Collins (2006) posit that each time a person argues with another person about the way something should be, the underlying belief in a moral standard is reflected. Collins argues that the concept of “right vs. wrong” appears to be a universal phenomenon among all members of the human species. Whereas cultures may differ regarding what constitutes right and wrong, the mere comparison of the two cultures further reflect belief of a higher-order moral standard (Collins, 2006; Lewis, 1952).

With regards to understanding what constitutes the “true” moral standard, Lewis (1952) argues that the intention of the creator cannot be perceived directly, but indirectly by observing the “fruits” of various actions. In addition to coming from a Judeo-Christian perspective, I also ascribe to values of the Cherokee, which contributes to my overall worldview. The Cherokee hold sacred the concepts of balance and harmony with all of creation, suggesting a collective view of right vs. wrong. When balance is disrupted by any one person or group, natural consequences emerge in the collective system (Garrett, 1998). For example, deforesting an area for corporate greed without replanting may result in an array of harmful ripple effects ranging from reduced water cycling and rainfall to starvation (Fearnside, 2005). Through this lens, the “creator’s” blueprint for humanity can indirectly be understood by evaluating the ways in which various actions affect the collective system of creation for better or worse.

Importance of Priming that Promotes Balance and Harmony in Creation. In a review of world religions, Post (2002, p. 67) posits that Jewish, Hindu, Buddhist, Islamic, and Native American spiritual traditions all highlight the “flourishing that follows from a life of unselfish love – a life in tune with one’s truest self.” The primes in the current study align with these age-old spiritual values of loving and caring for others, and are also consistent with an array of research pertaining to cause and effect of the human system. An array of studies have shown that engaging in behaviors for the sake of others has positive effects on a wide range of mental and physical health markers, and longevity of the giver (Post, 2005). However, if one’s helping behavior tends to become overwhelming, negative consequences can emerge (Kiecolt-Glaser, Preacher, MacCallum, Malarkey, & Glaser, 2003), further disrupting the system. In sum, I argue

that the primes that I used in this study were morally constructed, such that the fruits of similar actions have shown through research to positively affect the collective system of humanity.

The Dark Side of Priming. If one buys into my argument for an ultimate moral standard that encompasses loving behaviors, then one must also believe that harmony in creation can be disrupted by immoral behaviors that objectively go against that standard. For the purpose of this paper, *immoral behaviors* can be defined as any private or public behavior that leads to the demise of harmony and balance in the collective system of humanity. Through this definition, behaviors such as infidelity, bragging, or overeating that might feel “good” or “right” in the moment could potentially be classified as immoral if they disrupt the flow of goodness that moves through the system. For example, a simple act of bragging could result in demoralization of another person and trigger a host of negative ripple effects in the system. Unfortunately, an assortment of previous research has shown that the power of priming can also work on the dark side.

Support has been shown for what Berkowitz and Heimer (1989) call the cognitive neoassociationistic analysis of anger model. Through an examination of four studies, the authors posit that when primed with an aversive stimulus, a person’s affect is impacted and can subsequently lead to both a primitive experience of anger and aggressive inclinations against others. Furthermore, it has been shown that people are more likely to cheat and engage in unethical behavior when they have been primed by observing someone else engage in that behavior (Gino, Ayal, & Ariely, 2009). A variety of studies have consistently shown that priming through violent video games (Anderson &

Bushman, 2001) and television (Paik & Comstock, 1994) facilitates aggressive thinking, emotions, and behavior.

On an even darker side, studies have shown that cult leaders use various types of priming to employ mind control techniques for recruiting members to achieve their selfish aims (Patel, 2015). Whereas the sources of evil and reasons that people choose to do harm to humanity are beyond the scope of this paper, it is important to better understand how leaders, parents, and community leaders can best guard against it. More research is needed in the area of immoral priming to better understand the characteristics that make people most susceptible to priming, which primes are most potent for evoking harmful behaviors, and how people can guard themselves against priming that leads to problematic behaviors.

Priming and Implications for Practitioners. Whereas a single person's emotions might not seem to matter in a large organization, an interesting study Smith-Crow and Warren (2014) has shown that emotions such as guilt, shame, embarrassment, and pride can lead to a spread of corruption within an organization through emotional contagion (i.e., emotion-evoked collective corruption model). Leaders, practitioners, and even parents should be aware and intentional about the ways in which they might be priming their employees, patients, and children unknowingly. As a means for inhibiting negative primes and facilitating harmony in the collective system, people in leadership and practitioner positions may benefit by taking a moment before beginning their meetings to become aware of and let go of thoughts and emotions that could potentially spread to other people. By letting go of negativity and identifying a morally-constructed

SoP before going into their meetings and activities with others, perhaps people in power positions could better contribute to the collective human system.

Priming and Future Research. The priming that occurred in the current study was in the form of a vignette; however, priming can take on many forms and range along the spectrum of morality. Future research should explore the strengths of various types of priming on people's cognitive, emotional, and behavioral responses to better understand priming potency. Furthermore, for the sake of promoting a sense of goodness in the collective system of humanity, additional research is needed regarding how to teach and train people from an early age to appreciate morality and facilitate the greater good. Whereas the concept of teaching morality to facilitate a collective good has traditionally been religious domain, humans are living in a very connected world where people with different religious and spiritual affiliations comprise schools, workplaces, and communities.

Entities such as the American Counseling Association (ACA) have not given up on the endeavor of incorporating morality and meaning into the American culture. Because of the overwhelming scientific evidence suggesting that people are happier and healthier when they exhibit spiritual, ethical, religious, and other human values, they have put forth a set of competencies that credentialed counselors must have to practice to in the U.S. These competencies are listed as ASERVIC (Association for Spiritual, Ethical, and Religious Values in Counseling) competencies and include various components such as understanding one's own world view and how it impacts one's counseling, self-awareness, human spiritual development, spiritual communication, assessment, and treatment that is conducive to one's spiritual foundation.

School counselors in training are currently receiving advanced education in positive psychology, hope and meaning, resilience, strengths/gifts, emotional and behavioral self-regulation, empathy, goal setting, and more. The hope is that this non-religious, yet morally constructed curriculum can help to raise up young children from diverse backgrounds with a desire to do good in the world and to better understand their meaningful place in society (e.g., Dobmeier, 2011; Fisher, 2009; Harris, Thorensen, & Lopez, 2007; Sink, 2004).

Future research in the area of priming and morality may include additional research across cultures that shows how various education systems, cultural upbringings, and societal norms affect a realm of moral behaviors in the home, school, workplace, and community. In order to create a harmonious human system that includes people from all walks of life and religious traditions, it will be important for researchers and practitioners to maintain an open mind about morality that transcends one's own religious or spiritual tradition. With an open mind related to a collective good, perhaps future researchers can identify more of the variables that impact the diverse human system for the better.

Overall Implications for Theory

To this point, strategies for EMSR have been fairly broad in nature. For example, Gross's (1999) five conceptual families of emotional regulation strategies include: (a) situation selection, (b) situational modification, (c) response modulation, (d) cognitive change, and (e) attentional deployment. These families are great for conceptualizing the ways in which emotional self-regulation occurs, but may not offer the specificity needed for measuring and testing variables. The main research contribution of the current study was the operationalization and measurement of specific strategies for EMSR (i.e., SoP and

FoP) that fit within two of the families (i.e., cognitive change and attentional deployment).

Through two experiments, I found that a SoP and FoP were effective at directly and indirectly impacting EMSR. I believe that researchers can do a great service to the theory of emotional regulation by continuing to unpack SoP and FoP as they relate to EMSR, as well as identifying and measuring other specific strategies that fall under Gross's (1999) five conceptual families.

Overall Implications for Practice

SoP has shown to begin a chain reaction that impacts a person's FoP and ultimately EMSR in high-pressure situations. I recommend that practitioners of all kinds (e.g., coaches, teachers, mentors, leaders, and even parents) use these results to develop creative strategies for lifting their protégés to greater levels of EMSR. Specifically, practitioners should use the art of appreciative inquiry (Cooperidder et al. 1999) to begin each meeting with the question, "what is our true purpose in this situation?"

I imagine a world of work where leaders ask subordinates about their morally-constructed purpose at the beginning of 1:1 meetings, employee evaluations, and team meetings. Similarly, I would like to see my future children engage in a classroom where the teacher asks the students about their vocational purpose before a test. Lastly, a mentor asking a mentee about his/her purpose during difficult time could make a world of difference for that person in healing and moving forward. I would argue that whatever situation a person finds him/herself in, there is always a deeper purpose waiting to be identified. Through Bandura's (2001) social cognitive lens, my hope is that practitioners can teach their protégés to identify their own SoP by modeling the behavior often.

On a concrete level, I recommend that practitioners engage in the following behaviors: (a) create a reminder for yourself to ask, “what is my purpose?” before beginning your day, your work assignments, and your meetings, (b) begin each meeting with subordinates by asking them, “what is your real purpose in this situation?” If subordinates provide a generic, surface-level response, ask them again, “and what is your purpose beneath that?” (c) encourage subordinates to identify their own purpose in real times of high pressure by modeling it to them, and by assisting them with incorporating behavioral cues into their routine (e.g., remind yourself to identify your purpose on a sticky note that you keep on your computer monitor), and (d) begin team discussions and meetings by asking the group, “what is our true purpose in this situation?”

Overall Limitations and Future Directions

As mentioned throughout the discussion section, results from the current study shed light on questions and limitations that may only be answered by conducting additional interventions and measuring additional variables. The largest limitation across all hypotheses was that participants were exposed to a hypothetical situation (versus a real-life situation). Furthermore, I carried out the SoP and FoP interventions by asking participants to read a paragraph. It is currently unclear how the results from the current study would transfer to a real-world situation where participants are taken through elaborate workshops that teach them to identify their SoP and FoP, and subsequently exposed to a real high-pressure experience. A clear next step for future research is to replicate this study in a real-world context.

In sum of all future directions across hypotheses, I recommend that future researchers take the following steps: (a) measure variables such as *baseline FoP* and

salience and *elaboration* of SoP to inform a more elaborate study model, (b) identify the levels through which people learn to identify their own purpose in real time (i.e., reading material, modeling, intensive workshops), (c) evaluate characteristics that make people susceptible to immoral priming, which types of primes are most potent, and how people can guard against being unintentionally primed, (d) identify the mechanisms by which a SoP potentially impacts perseverance through high-pressure over time, including its relationship with spirituality, (e) evaluate various ways that society can embed moral primes and teaching in a culturally-diverse world for facilitating harmony. I believe that taking these next steps will contribute to model specification and elaboration that can inform the human system in which we are a part for the better.

Conclusions

The purpose of this study was to understand the strategies that lead to EMSR during high-pressure situations (specifically for HSPs). Major findings include the phenomenon of impacting a person's focus and emotions in a positive direction by providing them with a specific, morally-constructed SoP. Furthermore, HSPs who have traditionally had a difficult time filtering out irrelevant information can differentially benefit by tuning in to a SoP. Once the purpose shifts their attention toward the potential at hand, they appear to find themselves on equal playing ground with non-HSPs in terms of EMSR. The underlying assumption of this research is that humans have a purpose in the world, which is to evolve into greater levels of awareness, compassion, and unity as a collective system. As we act out of greater purpose in our everyday lives, especially when times are tough, we move closer to collective harmony.

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Table 1

Experimental Manipulations and Measures

	Experiment 1 Manipulations	Measures	Experiment 2 Manipulations	Measures
Condition A	Experimental Condition (SoP)	Manipulation Check (SoP scale) FoP SPS EMSR	Experimental Condition (FOP)	Manipulation Check (FoP) SPS EMSR
Condition B	Control Condition (Absence of SoP)	Manipulation Check (SoP scale) FoP SPS EMSR	Control Condition (Absence of FOP)	Manipulation Check (FoP) SPS EMSR

Note. SoP = Sense of Purpose; FoP = Focus on Potential; EMSR = Emotional Self-Regulation, SPS = Sensory-Processing Sensitivity.

Table 2

*Violated Assumption: FoP Moderating Relationship
Between SoP and EMSR*

FoP	<i>b</i>	<i>p</i>	95% CI	
Main Effect	-.28	.01	-.50	-.07
One <i>SD</i> below mean	1.11	< .01	.68,	1.53
At the mean	.73	< .01	.45,	1.00
One <i>SD</i> above mean	.35	.07	-.03,	.73

Note. SoP = Sense of Purpose; FoP = Focus on Potential; EMSR = Emotional Self-Regulation.

Table 3

Descriptive Statistics, Reliability Estimates, and Study Variable Inter-correlations for Experiment 1

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. SoP	1.68	-.46	(.86)				
2. FoP	.88	-.36	.58	(.90)			
3. EMSR	1.18	-.41	.61	.63	(.95)		
4. SPS	-.12	-.02	.02	-.15	-.22	(.93)	
5. Gend	.54	.50	.01	-.03	-.07	.26	--
6. Age	-1.75	-.33	.12	.09	.19	-.06	.11

Note. $N = 224$. Correlations were two-tailed. Values above +/- .15 are significant at the $p < .05$ level, and correlations above .19 are significant at the $p < .01$ level. SoP = Sense of Purpose; FoP = Focus on Potential; EMSR = Emotional Self-Regulation, SPS = Sensory-Processing Sensitivity; Gend = Gender. SoP is a dummy-coded variable (0 = absence of SoP; 1 = SoP). Gender is dummy-coded as: 0 = Male, 1 = Female.

Table 4

Descriptive Statistics, Reliability Estimates, and Study Variable Inter-correlations for Experiment 2

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. FoP	1.92	-.36	.58	(.91)			
2. EMSR	1.11	-.24	.61	.66	(.97)		
3. SPS	-.15	-.06	.02	-.16	-.24	(.92)	
4. Gend	.50	.50	.01	-.14	-.02	.27	--
5. Age	-1.23	.49	.12	.10	.08	-.17	.16

Note. $N = 221$. Correlations were two-tailed. Values above +/- .14 are significant at the $p < .05$ level, and correlations above +/- .24 are significant at the $p < .01$ level. FoP = Focus on Potential; EMSR = Emotional Self-Regulation, SPS = Sensory-Processing Sensitivity; Gend = Gender. FoP is a dummy-coded variable (0 = absence of FoP; 1 = FoP). Gender is dummy-coded as: 0 = Male, 1 = Female.

Table 5

Hypothesis 3: SPS Does Not Moderate the Relationship Between FoP and EMSR

SPS	<i>b</i>	<i>p</i>	95% CI	
Main Effect	.29	.13	-.09	.66
One <i>SD</i> below mean	.77	< .01	.25,	1.28
At the mean	1.05	< .01	.68,	1.42
One <i>SD</i> above mean	1.33	< .01	.81	1.86

Note. SPS = Sensory Processing Sensitivity; FoP = Focus on Potential; EMSR = Emotional Self-Regulation.

Table 6

Study 1 Factor Loadings for Exploratory Factor Analysis with Promax Rotation

Items	SoP	FoP	EMSR
Pur_1 “My personal existence in this situation was purposeful and meaningful.”	.97		
Pur_2 “No matter how stressful the situation was, I knew why I was there.”	.73		
Pur_3 “I was guided by a transcending SoP.”	.94		
Pur_4 “In the situation, I had clear goals and aims.”	.57		
Pur_5 “I was able to stay true to my greater purpose, even in the midst of chaos.”	.65		
Pot_1 “I had a clear focus on overcoming setbacks to conquer the challenge at hand.”		.38	
Pot_2 “I saw obstacles as information that will help me to solve problems.”		.92	
Pot_3 “I was focused on gaining more information/feedback that might help me to succeed at this project.”		1.01	
Pot_4 “I was focused on figuring out how to adapt my current strategy to meet my goal.”		.79	
Pot_5 “I was able to see the opportunities as well as obstacles in the situation.”		.82	
EMSR_1 “I was able to stay in control under the pressure.”			.81
EMSR_2 “I was able to maintain the ability to regulate my emotions when others disagreed with me (or pointed blame).”			1.04
EMSR_3 “In the midst of the high-pressure situation, I was able to keep my cool.”			.96
EMSR_4 “I was able to keep my emotions from getting the best of me.”			.97
EMSR_5 “I was able to stand in the middle of the			.95

storm and remain calm even when my interactions with others got stressful.”

EMSR_6 “I was faced with the stressful situation, I made myself think about it in a way that helped me to stay calm.”

.77

Note. SoP = Sense of Purpose; FoP = Focus on Potential; EMSR = Emotional Self-Regulation.

Table 7

Study 2 Factor Loadings for Exploratory Factor Analysis with Promax Rotation

Items	FoP	EMSR
Pot_1 "I had a clear focus on overcoming setbacks to conquer the challenge at hand."	.81	
Pot_2 "I saw obstacles as information that will help me to solve problems."	.83	
Pot_3 "I was focused on gaining more information/feedback that might help me to succeed at this project."	.91	
Pot_4 "I was focused on figuring out how to adapt my current strategy to meet my goal."	.87	
Pot_5 "I was able to see the opportunities as well as obstacles in the situation."	.80	
EMSR_1 "I was able to stay in control under the pressure."		.90
EMSR_2 "I was able to maintain the ability to regulate my emotions when others disagreed with me (or pointed blame)."		.93
EMSR_3 "In the midst of the high-pressure situation, I was able to keep my cool."		.96
EMSR_4 "I was able to keep my emotions from getting the best of me."		.96
EMSR_5 "I was able to stand in the middle of the storm and remain calm even when my interactions with others got stressful."		.94
EMSR_6 "I was faced with the stressful situation, I made myself think about it in a way that helped me to stay calm."		.85

Note. FoP = Focus on Potential; EMSR = Emotional Self-Regulation.

Table 8

*Supplemental Analysis: SPS Moderating
the Relationship between SoP and EMSR (b-path)*

SPS	<i>b</i>	<i>p</i>	95% CI	
Main Effecty	.27	.09	-.04	.59
One <i>SD</i> below mean	.58	.01	.11,	1.05
At the mean	.87	< .01	.54,	1.20
One <i>SD</i> above mean	1.15	< .01	.68	1.62

Note. SPS = Sensory-Processing Sensitivity; SoP = Sense of Purpose; EMSR = Emotional Self-Regulation.

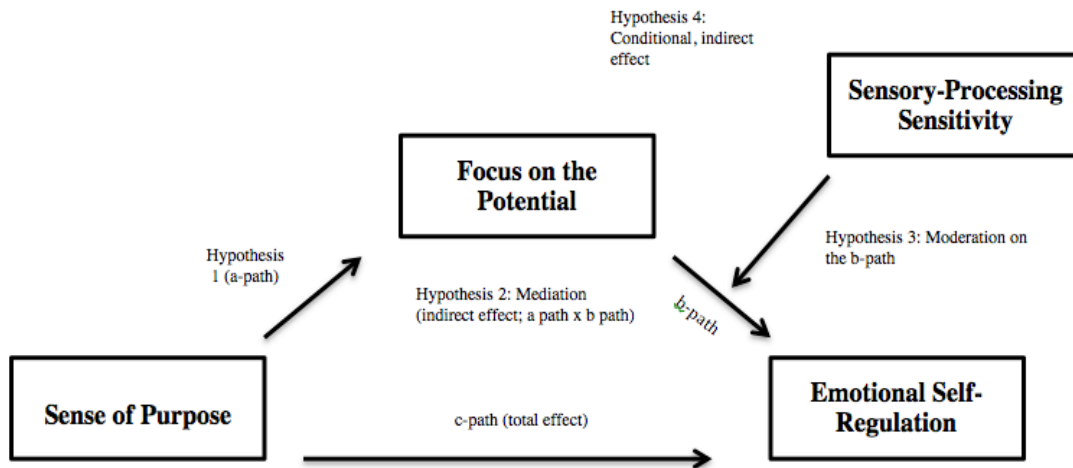


Figure 1. Overall study model. Depicts a moderated mediation model, which will be tested through two experimental studies per the recommendation of Stone-Romero and Rosopa (2011).

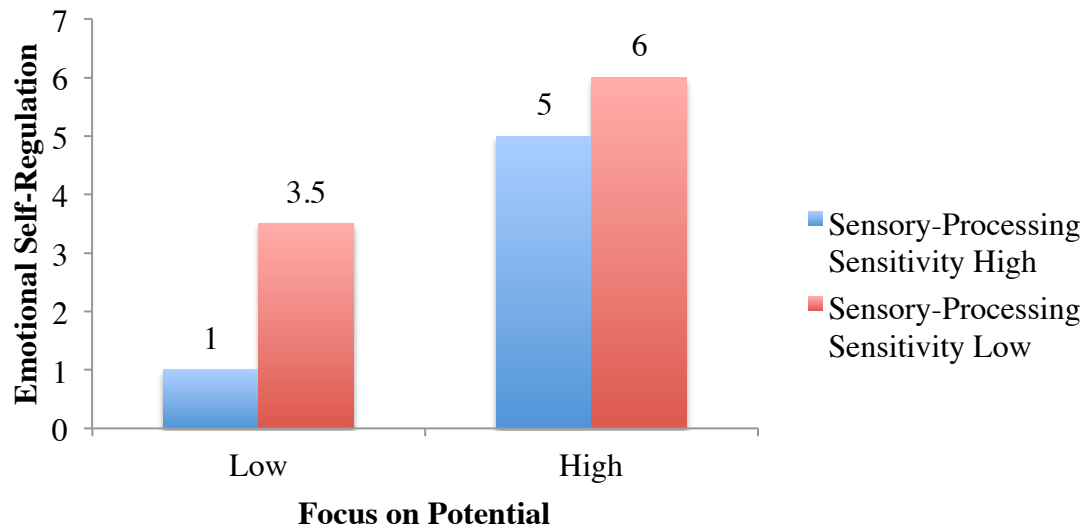


Figure 2. Hypothesis 3 on 'b' path. Depicts the third hypothesis, suggesting an interaction effect between FoP and SPS on EMSR.

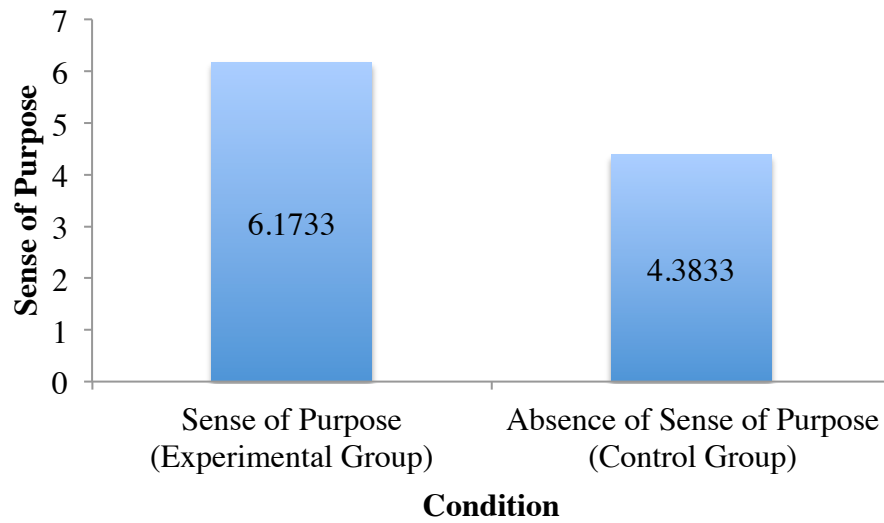


Figure 3. Pilot Test: Manipulation check experiment 1. Depicts pilot test data for Experiment 1, conditions A and B. Illustrates the mean scores for the SoP manipulation check in Experiment 1 on a 1-7 Likert-type scale.

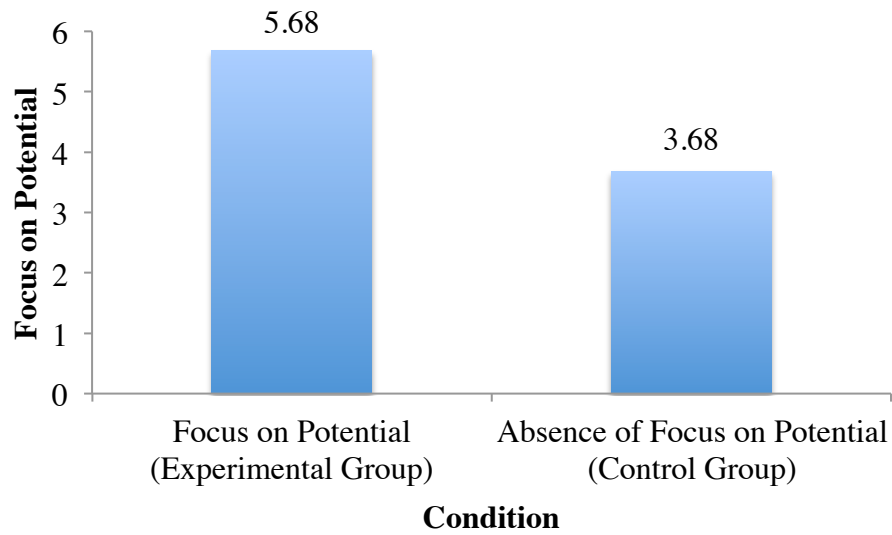


Figure 4. Pilot test: Manipulation check experiment 2. Depicts pilot test data for Experiment 2, conditions A and B. Illustrates the mean scores for the FoP manipulation check in Experiment 2 on a 1-7 Likert-type scale.

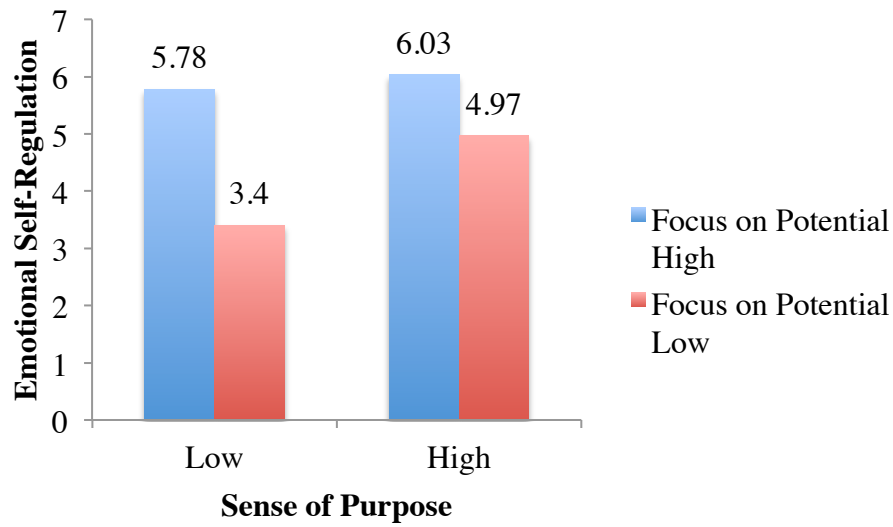


Figure 5. Violated assumption: IV and mediator interacting on DV. Depicts results of the violated assumption that the proposed mediator (FoP) does not moderate the relationship between the IV (SoP) and DV (EMSR).

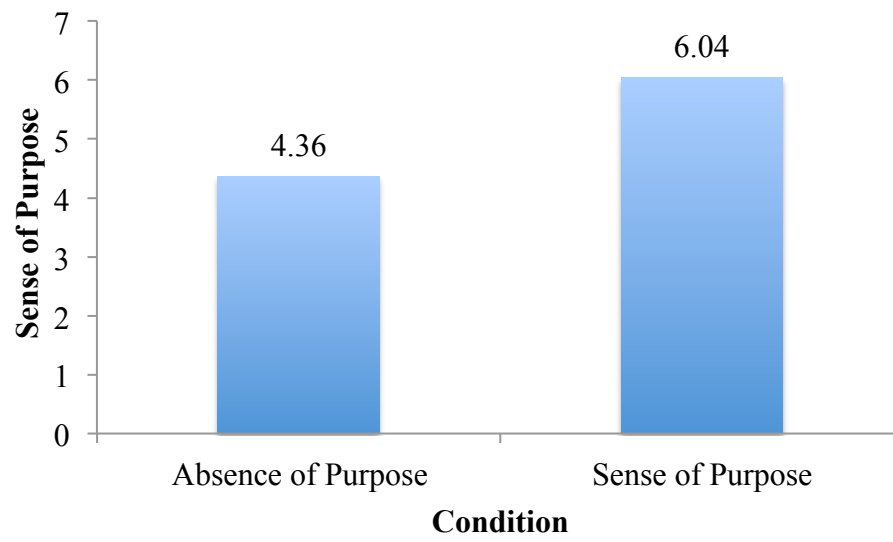


Figure 6. Experiment 1 manipulation check.

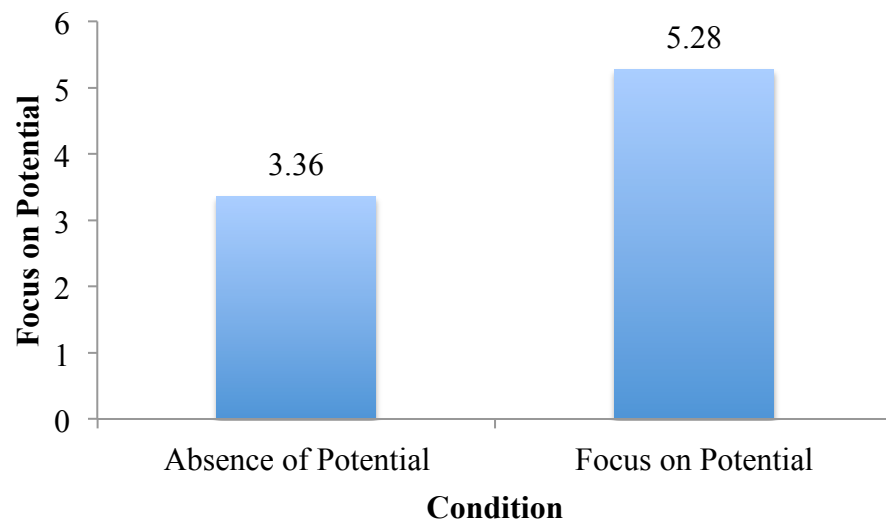


Figure 7. Experiment 2 manipulation check.

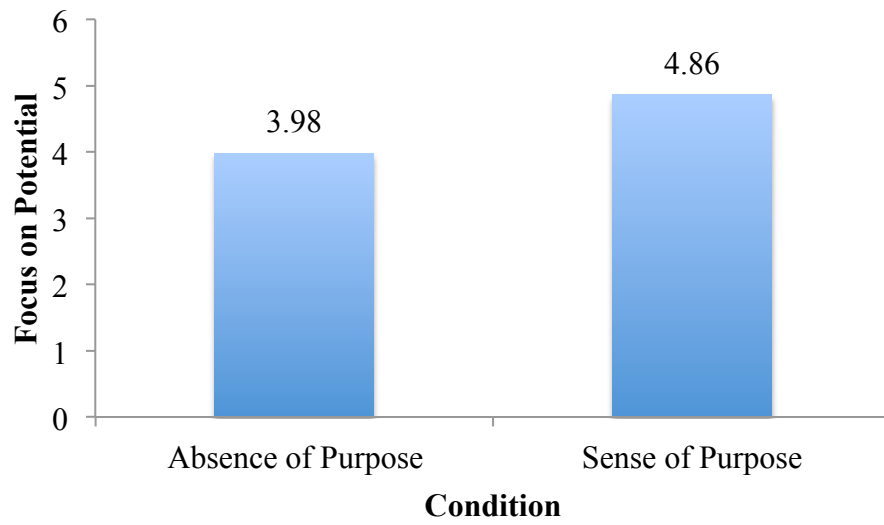


Figure 8. Results: Hypothesis 1 ‘a’ path. Depicts results for the first hypothesis, suggesting significant differences in FoP between the two conditions (absence of SoP, and SoP).

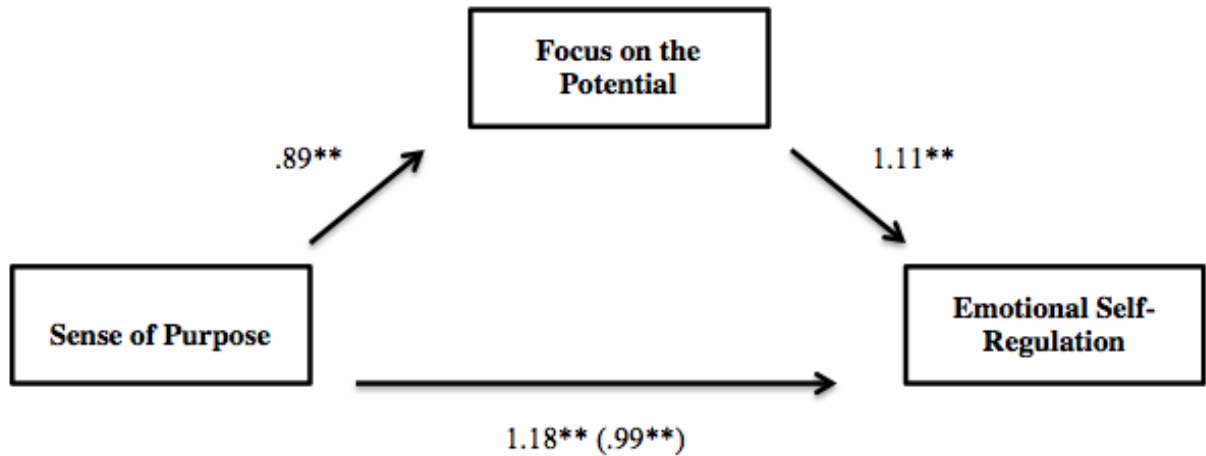


Figure 9. Results: Hypothesis 2 mediation. Depicts results for the proposed mediation. The relationship between SoP and EMSR is mediated by a focus on the potential. Relationships between variables are expressed as unstandardized regression coefficients. The total effect is 1.18, and .99 represents the indirect, or mediated effect. The direct effect isn't depicted, and equals .19.
** $p < .01$.

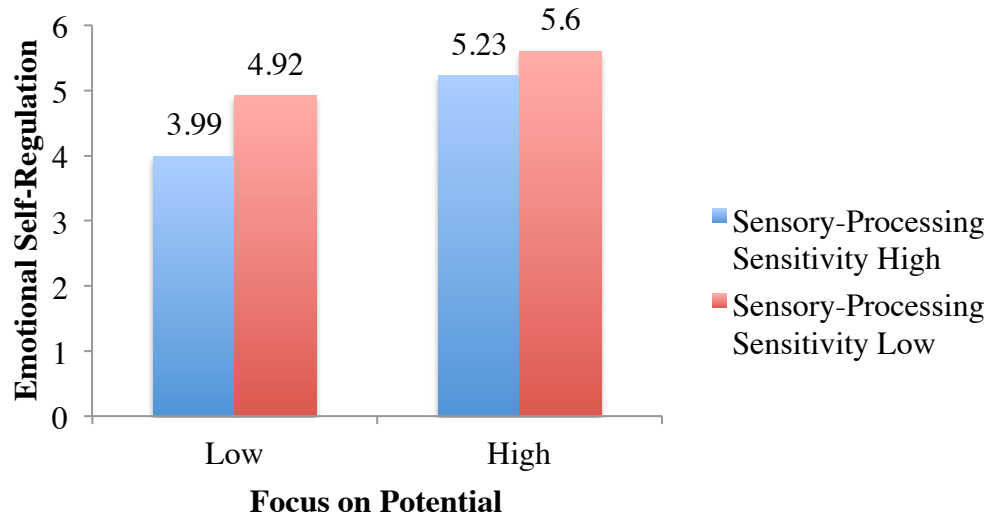


Figure 10. Results: Hypothesis 3 moderation. Graphically represents data that fails to support an interaction between FoP and SPS on EMSR. High levels of SPS are comprised of mean scores above 5 on a scale of 7.

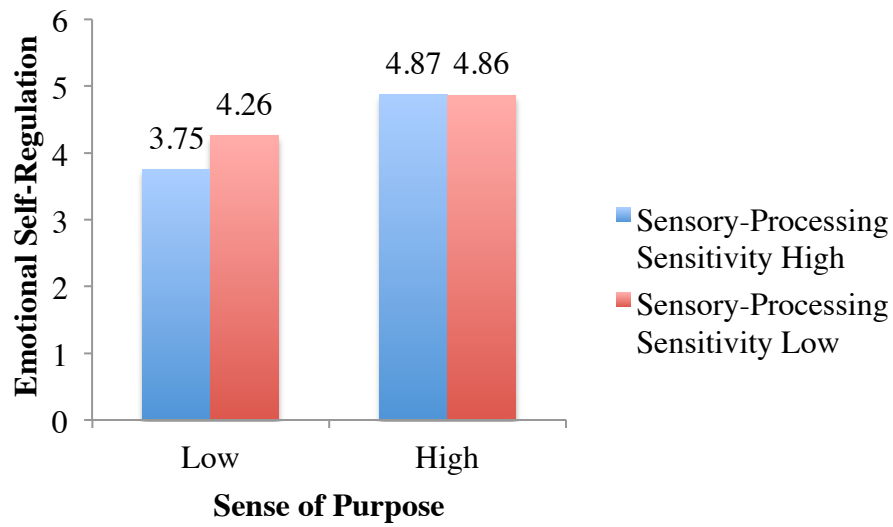


Figure 11. Supplemental Analysis: Moderation on ‘a’ path. Depicts the evaluation of the relationship between SoP and FoP as moderated by SPS.

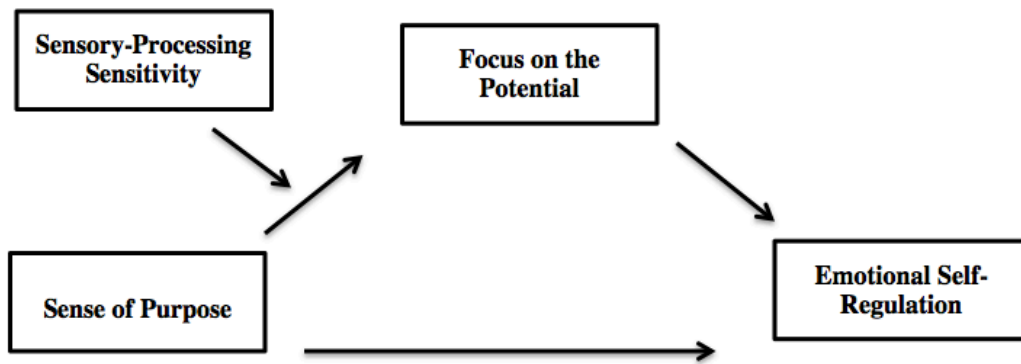


Figure 12. Final study model. The model includes a significant mediation and moderation on the ‘a’ path.

Appendix A

Experiment 1. The relationship between SoP (IV) and FoP (Mediator)

Instructions: Read the following scenario carefully, and do your best to put yourself into the person's (i.e., Morgan) shoes. Thoughtfully answer the questions that follow.

Scenario

You walk into the boardroom and sit down for an important meeting with 9 colleagues. (You have been very **busy this week**, with documents **piling up** on your desk and **emails** that you **can't quite get through**. You have stayed at **work late** for three nights now working on a proposal, and to top it all off your **children and spouse are sick with the flu**). You are asked to report out on your proposal, but 5 minutes into your presentation your **superior cuts you off** and says, "Really? I think **you are being down right ignorant** with this proposal. I'd be surprised if it got through the receptionist's desk. How about you stop wasting our time and bring it back when you have something on value." (You notice a few colleagues smirking, and others appear to pity you).

(This prompt below is given randomly to half of the population; Purpose Group). Although you are feeling heightened pressure, you **stop for a moment, tune into** a deeper part of yourself, and ask, "What is my **purpose** in this situation? At that moment, you identify that your **purpose is to get this proposal approved** that is going to free up hundreds of thousands of dollars that will **help children** who are on the streets to **receive better education and healthcare**. You are **here for a reason** that is **bigger than yourself**, and that is to **enrich the lives** of these children in need. You take a deep breath and shift your focus back to the meeting.

1. Briefly describe your transcending Sense of Purpose in this situation: (First part of manipulation check)

2. Rate the extent to which you agree with the following statements based on your experience in the scenario above: (Second part of manipulation check) (1-7 LIKERT)

- 1) My personal existence in this situation was purposeful and meaningful
- 2) No matter how stressful the situation was, I knew why I was there
- 3) I was guided by a transcending sense of purpose
- 4) In the situation, I had clear goals and aims
- 5) I was able to stay true to my greater purpose, even in the midst of chaos.

2. Rate the extent to which you were able to do the following as you put yourself in the shoes of the person in the scenario above: (DV: EMSR; 1-7 LIKERT)

- 1) I was able to stay in control under the pressure
- 2) I was able to maintain the ability to regulate my emotions when others disagreed with me (or pointed blame)
- 3) In the midst of the high-pressure situation, I was able to keep my cool
- 4) I was able to keep my emotions from getting the best of me
- 5) I was able to stand in the middle of the storm and remain calm even when my interactions with others got stressful
- 6) When I was faced with the stressful situation, I made myself think about it in a way that helped me to stay calm

3. Of all the things that you are experiencing from the scenario, rate the extent to which you focused on the following: (Mediator: FoP Scale; 1-7 LIKERT)

- 1) I had a clear focus on overcoming setbacks to conquer the challenge at hand
- 2) I saw obstacles as information that will help me to solve problems
- 3) I was focused on gaining more information/feedback that might help me to succeed at this project
- 4) I was focused on figuring out how to adapt my current strategy to meet my goal
- 5) I was able to see the opportunities as well as obstacles in the situation

4. Read the following questions and answer each question according to the way you personally feel using the following scale. (Moderator: SPS; moderator 1-7 LIKERT)

See the 27-item Sensory-Processing Sensitivity scale by Aron & Aron (1997)

Appendix B

Experiment 2. The relationship between FoP (Mediator) and EMSR (DV)

Instructions: Read the following scenario carefully, and do your best to put yourself into the person's (i.e., Morgan) shoes. Thoughtfully answer the questions that follow.

Scenario

You walk into the boardroom and sit down for an important meeting with 9 colleagues. (You have been very **busy this week**, with documents **piling up** on your desk and **emails** that you **can't quite get through**. You have stayed at **work late** for three nights now working on a proposal, and to top it all off your **children and spouse are sick with the flu**). You are asked to report out on your proposal, but 5 minutes into your presentation your **superior cuts you off** and says, "Really? I think **you are being down right ignorant** with this proposal. I'd be surprised if it got through the receptionist's desk. How about you stop wasting our time and bring it back when you have something on value." (You notice a few colleagues smirking, and others appear to pity you).

(This prompt below is given randomly to half of the population; Potential Group).

Although you are feeling heightened pressure, you take a moment to **look beyond the challenges** and **focus on the potential** in the current situation. You **believe** that your colleagues are very successful and intelligent individuals that **may be able to help you** to move forward. Therefore, you humbly **ask yourself** if there is any truth behind your superior's feedback, and then you **identify a few questions** to ask the group that will provide you with more information about what is needed for your proposal to be accepted. Your **focus** is on the **potential of the situation**.

1. Briefly describe the potential in the current situation: (First part of manipulation check for FoP)

2. Of all the things that you are experiencing from the scenario, rate the extent to which you focused on the following: (Second part of manipulation check for focus on the potential; 1-7 LIKERT)

- 1) I had a clear focus on overcoming setbacks to conquer the challenge at hand
- 2) I saw obstacles as information that will help me to solve problems
- 3) I was focused on gaining more information/feedback that might help me to succeed at this project
- 4) I was focused on figuring out how to adapt my current strategy to meet my goal
- 5) I was able to see the opportunities as well as obstacles in the situation

3. Rate the extent to which you were able to do the following as you put yourself in the shoes of the person in the scenario above: (DV: EMSR; 1-7 LIKERT)

- 1) I was able to stay in control under the pressure
- 2) I was able to maintain the ability to regulate my emotions when others disagreed with me (or pointed blame)
- 3) In the midst of the high-pressure situation, I was able to keep my cool
- 4) I was able to keep my emotions from getting the best of me
- 5) I was able to stand in the middle of the storm and remain calm even when my interactions with others got stressful
- 6) When I was faced with the stressful situation, I made myself think about it in a way that helped me to stay calm

4. Read the following questions and answer each question according to the way you personally feel using the following scale. (Moderator: SPS; moderator; 1-7 LIKERT)

See the 27-item Sensory-Processing Sensitivity scale by Aron & Aron (1997)