

A BICULTURAL SERVICE MEMBER/CIVILIAN IDENTITY AND  
MOTIVATIONS-BASED ASSESSMENT OF MORAL INJURY IN U.S. MILITARY AND  
VETERAN POPULATIONS FROM AMERICA'S LONGEST WARS

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## **Abstract**

Experiences in war are often traumatic in nature. Over the past thirty years, research has resulted in increased understanding of these experiences and the unique trajectory that values-based, as opposed to fear-based, traumas can cause. This study investigates these values-based traumas and the mental health outcomes that may result in a syndrome known as moral injury. The current research examined the relationship between potentially morally injurious event exposure and mental health symptomology. Event exposure was conceptualized both as objective occurrences and as the subjective experience of events, with notable distinctions in significance of outcomes. After attempting to replicate previous research findings for the relationship between these potentially morally injurious events and symptomology, including with meaning-making hypothesized as a key variable, two new variables of bicultural identity integration and motivations to enlist were introduced into the research analyses. It was hypothesized that bicultural identity integration would have statistically significant and negative correlations with all mental health outcomes and that bicultural identity integration would mediate the relationship between perceived moral violations and overall mental health outcomes, and these hypothesized relationships were supported. Hypotheses that intrinsic motivations to enlist would be negatively correlated with mental health outcomes and extrinsic motivations would be positively correlated with negative mental health outcomes were partially supported. This paper ends with discussion of the study results, including clinical implications, study limitations, and suggestions for future research.

*Keywords:* moral injury, meaning making, bicultural identity integration, motivations to enlist

## Dedication

This dissertation is dedicated in memory of my father. Daddy, through all the hardships and traumas that you faced, you were fiercely loyal and unfailingly faithful to your family and to your values. Despite being a single parent and having little, you selflessly gave, not only to your children, but to anyone in need. My love for learning also came from you. You did not have the same opportunity to go to college that I did, but you were the most intelligent and skillful man I have ever known. You surrounded us with books, encouraged every dream we ever had, worked tirelessly to provide a better future for us, and you instilled in me a belief that there are no limits to what I am capable of, if only I work hard and persevere in the face of disadvantage, struggle, and, yes, even trauma. In every way, Daddy, you have been the example of grit, genuine love and kindness, and selfless sacrifice that has guided me forward in this life. You are the reason for every accomplishment and every achievement that I have had, including this one. I lost you at the very beginning of this journey and it has been so difficult to go through this without my biggest fan cheering me on. Every good thing that comes from this work I attribute to you. Every wounded soul that will benefit from this research, will unknowingly have been helped to heal because of you. This is just one small part of the legacy that you have left behind. I miss you terribly, and I love you “oodles and oodles, lots and lots, and forever, and ever.” I dedicate this to you.

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## List of Abbreviations

All-volunteer force (AVF)

Betrayal (BT)

Bicultural Identity Integration (BII)

Diagnostic and Statistical Manual of Mental Disorders (DSM)

Law of Armed Conflict (LOAC)

Meaning Making Model (MMM)

Military Occupational Specialties (MOS)

Moral Injury (MI)

Posttraumatic Stress Disorder (PTSD)

Potentially morally injurious event (pMIE)

Religious/Spiritual (R/S)

Rules of engagement (ROE)

Social Cognitive Theory and Identity Theory (SCT-IT)

Transgressions-Other (T-O)

Transgressions-Self (T-S)

## **A Bicultural Service Member/Civilian Identity & Motivations-Based Assessment of Moral Injury in U.S. Military & Veteran Population from America's Longest Wars**

The casualties of war are extensive. In the aftermath of combat, there is loss of life, damage to families and communities, and, in ways that society is only recently beginning to understand, damage to the soul of a soldier returning home from the battlefield. As increased attention has been given in the literature to these “soul wounds” or “moral injuries”—and their costly consequences—significant diagnostic, treatment, and mental health and well-being considerations have arisen (Jinkerson, 2016; Shay, 2012). A growing consensus among researchers is that there are fundamental differences between fear-based and values-based traumas and, to date, the mental health field as a whole has overlooked these distinctions (Griffin et al., 2019; Koenig et al. 2018; Nilsson et al., 2015; Shay, 2014). Enhanced understanding of unique trauma types could prove beneficial for proper assessment, diagnosis, and treatment of service-members returning home from war.

For at least the past 35 years, terms such as moral distress, moral residue, and, more recently, moral injury have been used to describe various aspects of the values-based violations that can occur when an individual is exposed to, engaged in, or prevented from responding to acts that are not easily reconciled with their ethical and moral codes (Jones, 2018). Shay (2014), the individual credited with coining the term moral injury (MI), asserts a three-pronged definition of MI that is distinct from other definitions provided in the literature. Specifically, Shay (2014) sees only transgressions by leaders as the source of MI. Shay's (2014) definition states that MI is “a betrayal of what's right, by someone who holds legitimate authority (e.g., in the military—a leader), in a high stakes situation. All three” (p. 183). Conversely, other definitions expand upon Shay's, indicating that MI involves “perpetrating, failing to prevent, or

bearing witness to acts that transgress deeply held moral beliefs and expectations,” (Litz et al., 2009, p. 695) thus allowing for one’s own actions to be a source of distress and conflict.

These two prominent definitions by Shay (2014) and Litz and colleagues (2009) have served as guideposts in the literature for beginning to understand how war impacts an individual on a moral level. Such insights are critical due to the prevalence of events that may lead to this type of injury in wartime. In one study conducted with 2797 service members returning from Operation Iraqi Freedom (OIF) in late 2005-mid 2006, 77% of participants endorsed having been exposed to human remains, 56% had witnessed another individual being killed, and 40% acknowledged having killed another individual during the deployment (Maguen et al., 2010). In an earlier sample of 1709 soldiers and Marines that had been deployed, a similarly large number of veterans reported having been engaged in at least one firefight, with 31% of deployers to Afghanistan and 71-86% of deployers to Iraq having experienced this type of combat and with most endorsing exposure to multiple firefights (Hoge et al., 2004). Additionally, in that sample, 31.4% endorsed that they were responsible for killing an enemy, 9.7% acknowledged being responsible for the death of a noncombatant—a number that rose to just over 20% in the Iraq-only sample—and over 65% reported having witnessed the aftermath of war through seeing or handling human remains (Hoge et al., 2004). Similarly, in a sample of 4854 Canadian veterans, more than half of the sample, all of whom had been deployed to Afghanistan, endorsed exposure to potentially morally injurious events (Nazarov et al., 2018). Potentially morally injurious events (pMIEs) are events that have the potential to violate one’s sense of right and wrong (Litz, 2009; Shay, 2014).

While some of the above exposures may fall neatly into the category of trauma that captures fear-based, threat-to-life scenarios—the type of trauma that can result in the commonly known and studied diagnosis of posttraumatic stress disorder (PTSD)—many other scenarios of

war become much more complex in nature (American Psychiatric Association, 2013). For instance, exposure to human remains during the aftermath of war may not cause a fear-response, but could otherwise evoke strong and long-lasting emotional distress. Likewise, trauma and emotional distress may result from service members' exposure to viewing the unnecessary torture of a prisoner even when no threat to life exists. For this reason and others, many researchers have begun to assert that moral injury and PTSD are distinct, though commonly co-occurring, syndromes with PTSD stemming from life-threatening and fear-based events and MI appearing to manifest predominantly as guilt, shame, and associated emotional distress that results from moral and values-based conflicts, regardless of fear or threat to life (Griffin et al., 2019; Koenig et al., 2018; Nilsson et al., 2015).

There is, however, much more that needs to be learned to adequately understand these distinctions and the implications of these separate but related phenomena. For instance, it is generally accepted that moral reactions to atrocities are not pathological, but rather, are normal human responses (Farnsworth et al., 2017). Subsequently then, MI, if conceptualized as a syndrome or disorder, must be separate from functional moral pain and it is not yet known where or how the response to moral violations transition from being normal to dysfunctional (Farnsworth et al., 2017; Litz et al., 2019).

Conducting research that is focused on worldview and values variables that may shed light on the question of to what degree moral pain is pathological will be critical for gaining a deepened understanding of how MI may or may not be a unique type of trauma from PTSD. This may have significant implications for future conceptualizations of differential diagnosis and treatment. Since the term "moral injury" is a relative lexical newcomer and considering the common perceptions of MI as interchangeable with PTSD, much research is needed to siphon out how one may be unique from the other or whether, in fact, they are simply manifestations of

the same disorder. To date, a large percentage of the extant literature on MI has focused on military and veteran populations. This current research, too, will not part ways with this tradition, as significantly more research is needed with this population. Due to the nature of war, service members are considered to be at a higher risk for exposure to potentially morally injurious events that could lead to PTSD, MI, or both (Corona et al., 2019; Frankfurt & Frazier, 2016; Litz et al., 2009). This demographic, then, provides an ideal population for continued research. The men and women who serve in the United States military agree to tremendous sacrifice, and, in return for their service, the nation would do well to commit continued time and energy to answer the questions that remain regarding MI. This effort begins with acknowledging the extreme nature of war and the dramatic impact and alterations it can have upon service members' lives, particularly in recent decades as the realities of war have also significantly changed.

### **Background of the Problem**

To fully appreciate the current research and the modern implications for MI among military and veteran populations, it is necessary to acknowledge that this research is being conducted in the context of the current socio-politico-military realities of the 21<sup>st</sup> century, which differs from prior eras. Trauma research conducted prior to the 21<sup>st</sup> century, as a whole, does not specifically examine MI nor does it account for the unique differences that now exist in post 9/11 military missions. For these reasons, and owing to a scant MI research base, additional investigation is warranted to examine MI in the context of new realities of war. An argument can be made that the new landscape of war has resulted in increased vulnerabilities to pMIEs and, without an understanding of these dynamic shifts, the discourse on MI will be stunted. To understand these new truths of war, it is necessary to lay the foundation for the current research by first placing this discourse in the context of the military changes that have occurred in modern

warfare. It is largely owing to these new realities of war that there is a need to strengthen the understanding of MI.

### *Judges and Juries: The New Landscape of War*

Beginning in 1973, conscription—commonly known as the draft—ended in the United States and the country transitioned to an all-volunteer force (AVF; Clever & Segal, 2012; MacLean, 2018). This shift resulted in military service that was no longer an obligation, but that was rather an intentionally pursued occupation in an organization newly faced with the need to compete with other free-market employers through an appealing offer of benefits, prestige, and purpose (Clever & Segal, 2012; Korb & Duggan, 2007). Following the post-conscription period in the United States, the AVF also saw demographic transformations, such as increased racial and ethnic diversity, higher representation of women, an increased percentage of married service members, and an overall smaller active force that required more benefits and incentives to operate as compared with prior wars (Clever & Segal, 2012; Kang et al., 2015). In more recent years, during the protracted wars in Iraq and Afghanistan, the military was also forced to lower enlistment standards to meet manpower demands (Kolb & Duggan, 2007; MacLean, 2018). Such changes in diversity must be considered when attempting to examine the trauma literature of previous generations, as such research may not have examined similar populations of interest to those that are relevant to modern researchers. While MI, as a distinct variable of interest, has only been introduced during this new AVF context, thereby accounting for this new diversity, there is scant MI research overall and a general lack of understanding about its unique trauma trajectories.

Paired with these developments, technological advancements have also created significant changes to the landscape of war. For instance, drones, targeted missile strikes, and other related capabilities have resulted in more challenging difficulties as battlefields have

moved into areas populated with civilians and, despite more precise targeting, have intertwined the lines of military engagements with the territories of noncombatants (Issacharoff & Pildes, 2013). Perhaps most importantly, the landscape of war has changed in terms of how service members are engaged in identifying the enemy, a factor which results in dramatic shifts in frontline decision-making about appropriate targets and reasonable action (Kasher, 2007). War, traditionally, was fought against identified states and members of that state's military forces who engaged in battle as uniformed, distinguishable combatants, but has since moved toward an "*individuation of enemy responsibility*" as the marker for justified force (Issacharoff & Pildes, 2013). As opposing forces moved away from being state-associated, uniformed, and identifiable, more emphasis has been placed on trying to determine individual culpability for wrongdoing (Dill, 2019; Issacharoff & Pildes, 2013). In modern guerilla warfare, the enemy is often comprised of terrorists and insurgents, who, in addition to not adhering to the principle of distinction that would require uniformed identification, also have been recognized as not respecting international law that governs armed conflict, referred to as the Law of Armed Conflict (LOAC) or the Law of War (Breen, 2019; Etzioni, 2009; United States Marine Corps, n.d.). In prior wars, there was mutual adherence to such traditions, including the necessity of uniformed combat. Without these conventions, military members no longer have easily identifiable targets and are now required to look to suspicious actions to determine if a threat exists (Issacharoff & Pildes, 2013). Subsequently, service members must make quick judgments about future possibilities and attempt to prevent casualties and collateral damage, all while working within a highly ambiguous environment where miscalculations are highly costly (Yoo, 2015). As Issacharoff & Pildes (2013) explain, this moves war from a "legislative" process requiring only that one be identified as belonging to the opposing force to a "judicial" one in which service members are required to make impossible decisions about blame in the midst of

chaotic situations that do not allow for such a judge and jury process. In the most commonly understood sense, judicial processes are retrospective, with a jury determining the culpability of an accused and a judge determining a fitting punishment. In modern war, service members are acting as both judge and jury in a split-second trial.

This type of guerilla warfare presents new challenges for traditional military personnel who operate within Rules of Engagement (ROE) that were developed for battlefields with uniformed armies and wars with identified nation-states. The increased confusion, pressures of playing judge and jury in populated areas, and other related shifts of war can exacerbate the already-difficult realities of battle with tremendously powerful and negative results at the moral level for individual soldiers. The battle lines have moved from country demarcations to abstract territories and ideologies, and the modern soldier faces a complicated juxtaposition of war and civilian life being placed side by side. This new reality can confuse decision-making processes and rationale about justifiable action and leave deep moral wounds as soldiers are later forced to reconcile the actions that were taken as they put their life on the line for their country's cause and for humanity (Erez, 2017).

### **Statement of the Problem**

The new landscape of war, with its increasingly complicated moral dilemmas, may likely be a contributing factor to increased MI among contemporary veterans (Maguen et al., 2010; Morin, 2011; Vargas et al., 2013) and, minimally, creates a new reality that warrants special consideration during the continued investigation into military trauma. This assertion aligns with the growing numbers of veterans who report struggles with trauma and post-military transitions as well as the modern-day veteran suicide epidemic in the post 9/11 world (Bryan et al., 2018; Department of the Army, 2010; Orvis, 2019). In one study of 1853 veterans, 44% of veterans who had served since 9/11 endorsed that they experienced high distress during their post-military

transition to civilian life (Morin, 2011). These transitional difficulties are mirrored in the dramatic increase in treatment-seeking veterans in the years following 9/11. Despite an overall decrease in the estimated veteran population from approximately 23.6 million down to 20.4 million between 2007 and 2016, the National Center for Veterans Analysis and Statistics (2016a; 2016b) indicates an increase in the number of users of VA healthcare treatment by 22% and disability compensation by 42%. While these increases take into account all treatment-seeking and service-connected disabilities, the data remains relevant, owing to the fact that service-connected disability claims for PTSD have more than tripled since 2008 and that PTSD remains the third most prevalent service-connected disability for which veterans are receiving compensation (Shane, 2017; United States Department of Veteran Affairs, Veterans Benefits Administration, 2018). There has been a 117% increase in veterans with service-connected disabilities from 1990 to 2018 and in a FY 2018 report 1,039,794 veterans were receiving VA compensation for a service-connected disability rating for PTSD (NCVAS, 2016a; United States Department of Veteran Affairs, Veterans Benefits Administration, 2018).

Without an enhanced understanding of MI, it is unclear how many of these cases of PTSD have been misdiagnosed, are comorbid PTSD/MI conditions without recognition of such, or have missed being captured altogether as a result of those veterans who are suffering from MI not meeting the full criteria for a PTSD diagnosis. The clinical implications of such possible oversights are significant and concerning. Among MI researchers, the growing consensus that MI may be a separate construct with unique issues suggests that this condition requires specialized assessment and intervention protocols that do not currently exist or that have only newly been created and remain in their infancy (Burkman et al., 2019; Gray et al., 2012; Koenig et al., 2018; Maguen et al., 2017; Purcell et al., 2018).

As assessment protocols and treatments continue to be developed and refined, critical gaps in the literature must be addressed to allow for increased comprehension about diagnosis and the mechanisms of MI that can then lead to more advantageous and effective counseling interventions. One such gap in the extant literature is that conventional assessment methods and interventions overlook attention to existential mechanisms that may be a central component of MI. The literature repeatedly asserts that MI occurs when one's morals have been violated and the most commonly accepted and utilized definitions specifically indicate "a betrayal of *what's right*" (Shay, 2012) and "acts that transgress *deeply held moral beliefs* and expectations" (Litz et al., 2009). Yet, when examining the literature, there is little mention regarding what those values and morals are for various individuals and how the diversity of beliefs and worldview may impact the trajectory of MI. Since pMIEs are aversive to internalized ethics, worldview, and spiritual beliefs, MI research requires an analysis that includes such philosophical and spiritual variables related to identity, values, motivations, and moral subsystems. The inclusion of these variables can be beneficial for better distinguishing how MI operates as unique from PTSD, burnout, or other potentially similar, but distinct conditions (Heston and Pahang, 2019). It is hoped that such findings may also reveal vulnerabilities to MI and consequently lead to preventative measures.

### **Purpose of the Study**

Philosophers and academics throughout the ages have argued, with no resolution, about what *is* moral or what *should* be valued. These are massive questions that likely have no answer, and that certainly will find no answer in this current research. However, the intent of this study is not to answer such philosophical questions. Rather, the purpose of this study is to introduce the variables of values, motivations, and identity more overtly into the research in order to begin to understand how different conceptualizations of morality and self-image may or may not result in

different trajectories and outcomes for MI. While it may be argued that such minutiae are irrelevant to MI outcomes, this cannot be taken for granted without empirical measurement. For example, consider a deployment situation in which a service member perceives an individual to be a threat against their comrades and makes the decision to take that person's life. It has been well-established in the MI literature that the act of killing correlates with increased negative mental health outcomes (Burkman et al., 2019; Kelley et al., 2019b; Maguen et al., 2017), but it is not known whether, for instance, a service member who enlisted for intrinsic as opposed to extrinsic reasons will experience that event differently or whether one who experiences high levels of compatibility and integration in their identity, as opposed to one who experiences tension between military and civilian cultures, will experience different levels of distress after such an incident. This is highly relevant since there is great diversity among human beings in terms of held values.

By grounding the current research solidly on a combined foundation of Social Cognitive Theory (Bandura, 1986; 2001; 2005) and Identity Theory (Chen et al., 2013; Fu et al., 2007; Stets & Burke, 2000), while incorporating well-established concepts from the psychology of morality (Blasi, 1980; Ellemers et al., 2019; Haidt, 2001; Ingram, 2015; Kleiman-Weiner et al., 2017; Rai and Fiske, 2011) and the Meaning Making Model (Park, 2010), this study builds upon current MI literature and adds valuable new data to the extant literature. Specifically, this study builds upon current conceptualizations of how negative mental health outcomes, such as anger (Bryan et al., 2018; Currier et al., 2018; Frankfurt and Frazier, 2016; Jordan et al., 2017; Litz and Kerig, 2019), guilt and shame (Bryan et al., 2016; Frankfurt, Frazier, & Engdahl, 2017; Schorr et al., 2018), and suicidality (Kessler et al., 2015; Kopacz et al., 2016b; Maguen et al., 2017; Wisco et al., 2017) are operative in MI, examines meaning-making as an important variable (Corona et

al., 2019; Currier et al., 2018; Park, 2010), and also adds new information about how bicultural identity perceptions, values, and motivations to enlist impact MI outcomes.

By incorporating more deliberate measures of values, motivations, and identity into research, the overall knowledge base about MI will benefit. As a whole, philosophical and existential variables have been largely ignored in the MI literature. While the emphasis on the biological, psychological, cognitive, and emotional variables can be expected, its limitations are undesirable for a syndrome whose very conceptualization is philosophical in nature. The purpose of this study is to begin to fill this gap and to gather exploratory data that can be expanded in future research to enhance the empirical understanding of MI.

### **Research Questions**

This study will first attempt to replicate the outcomes found in previous MI studies.

Specifically, the study will seek to answer the following questions:

RQ1: What relationship exists between potentially morally injurious event (pMIE) exposure and mental health outcomes?

RQ2: How does Meaning-Making mediate or moderate this relationship between pMIE exposure and mental health outcomes?

Following these initial efforts to strengthen what is currently hypothesized in the literature, this research will expand the literature through exploratory investigation related to bicultural identity and assessment of motivations to enlist. The broad exploratory research question addressed in this study is:

RQ3: What relationships exist between identity and motivation-based factors and overall mental health outcomes?

## **Significance of Study**

These research questions have the potential to add significant value to the MI literature by increasing understanding about the active components of existential and philosophical beliefs that can subsequently result in MI as a possible syndrome. Considering the realities of guerilla warfare and increased atrocities of war, exposure to pMIEs is likely to continue to be prominent (Bloom, 2017; Hoge et al., 2004; Williams, Chandler, & Robinson, 2018; Windsor, 2018). On an individual level, then, if research is able to identify vulnerabilities that threaten increased susceptibility to MI, as opposed to less impairing moral responses, preventative measures may be able to be developed. These steps could assist in building resilience against MI in military members through adaptations in training and pre-deployment preparation. Treatment interventions could also be enhanced to include appropriate training and existential focus to more adequately address MI.

These existential approaches would allow for increased emphasis on relevant identity issues that occur as a service member moves through two major transition periods and the three major roles that have been identified in the literature. Specifically, the transition into military life and then, later, out of military life necessitates the adoption of three major life roles: civilian, service member, and veteran, each of which holds unique demands, challenges, and overall implications for identity and well-being (Mobbs and Bonanno, 2018). The theoretical foundations utilized in this current study emphasizes the importance of these social-relational and institutional influences (Bandura, 1986; 2001; 2005; Rai & Fiske, 2011). Identity and values are powerful forces that may have the potential to lead to the experience of MI when violations occur or when the individual's culture and ideals are in conflict between their distinct identities (Antonelli, 2017). Addressing these transitions is, therefore, critical since civilian and military moral codes can be misaligned and conflicting as a result of significantly different environmental

demands (Bandura, 2001; Ellemers et al., 2019), which can impact how veterans tend to see themselves as separate from this civilian group after having been to war (Purcell et al., 2016).

It is known from past studies that veterans who experience MI often refer to themselves utilizing terms that appear to reflect a difficulty coping with and assimilating past actions with values and identity. The commonly used self-evaluations of being a “monster,” “animal,” “evil,” and other related terms imply a schema related to identity about oneself as a bad or unforgivable person (Burkman et al., 2019; Miller, 2016; Purcell et al., 2018; Wood, 2016). It is here where research focused solely on cognitions and emotions may not be adequately comprehensive. Concepts related to perceived values violations, motivations, and conflicting identity, to the author’s knowledge, have not been directly applied or measured in MI research. For those suffering from MI, increased knowledge about and willingness to incorporate existential factors into practice can improve treatment through evidence-based data. Such improvements in prevention and treatment will allow the United States to better address the issues facing returning service members in regard to the prevalence of transition difficulty, suicide rates, and other mental health disturbances discussed elsewhere. The impact of improved care would extend beyond the individual to families and communities, resulting in even greater significance.

An honest evaluation of such philosophical questions, grounded in empirical research, can also position the United States to examine responsibility on a macro level for potential deficits. In the larger ecosystem, there are socio-political influences that can create and enact systems that allow for wrongdoing (Bar On, 2012). Researchers have a responsibility, therefore, to examine MI not only on a personal level but also on a group and societal level as well. If there is truth in the increased prominence of pMIEs, the dissonance between values and actions, and resultant MI, it is critical to examine what environments are being created to allow for this shift. By gaining insight into how and under what conditions the capacity for doing wrong becomes

activated into behaviors that are extreme in their potentially immoral nature, policy changes can be advocated for with the backing of empirical support (Bar On, 2012). To accomplish these goals, a first step will be to incorporate these philosophical variables overtly into the MI research to obtain increased knowledge on effective and empirically-based approaches to prevention, treatment, and policy and systemic change. It is evident that improved responses to MI and especially preventative measures will have economic, cultural, and personal advantages.

### **Definitions of Terms**

In this study, Litz and colleagues' (2009) expanded definition of MI is used owing to the research that suggests that one's own actions, not just the experienced actions of others, can contribute greatly to distress and negative outcomes. This definition also aligns with a main focus of this current research that concentrates on one's worldview of both self and others. The terms "transgressive acts" and potentially morally injurious events (pMIEs) are used interchangeably in reference to those events that may violate one's morals (Frankfurt & Frazier, 2016). Both of these terms are distinct from the resulting symptomology that is reflective of the syndrome for MI. The terms "service member," "soldier," and "veteran" are used interchangeably to reference any person who currently is or has served in any branch of the United States military. While many diagnostic considerations and debates currently exist and will be discussed later, for the purpose of this paper, MI is referred to as "syndrome."

### **Assumptions and Limitations**

The current research had several limitations and assumptions that are noteworthy of mention. Limitations exist in the current research due to the limited nature of self-report measures and retrospective, cross-sectional design. Resulting from the choice for the cross-sectional nature of this initial research, this was correlation research which limited results by being unable to infer causality (Hayes, 2013). The study design had an inherent risk for possible

non-completers/drop-outs, though that was hoped to be minimal due to the short-term nature of the online survey. The study design and execution presented the possibility of a small sample size and low power due to obstacles in obtaining military sample populations and the resultant sample was, in fact, smaller than desired. Additionally, the nature of philosophical measures is complicated, and there are limitations in measurement that will later be discussed. Despite these limitations, there are considerable strengths that exist with the current design, and the research undertaking was highly valuable as a foundational first step for further research.

A few notable delimitations must also be mentioned. First, though data was collected from veterans from any service period for the purpose of future research, only data for post 9/11 veterans was included in the current study. The rationale for this criterion is due to the changing nature of war discussed earlier and attempts to limit potential confounds from time period differences. This research, therefore, assumes that the landscape of war is different in current conflicts and that previous literature prior to WWII may not be able to be directly applied in the same way. Additionally, this research excluded a specific examination of military sexual trauma (MST) and examined only combat trauma. This study used a quantitative methodology, despite the high value that could result from qualitative interviews, and this type of investigation is suggested for future research.

## **Conclusion**

The relatively nascent existence of the construct of MI within the expansive history of war and trauma naturally results in deficits of knowledge and understanding about this phenomena. Coupled with the protracted wars and United States involvement in places such as Iraq and Afghanistan, and the landscape of guerilla warfare, these deficits subsequently leave mental health professionals inadequately prepared to treat veterans returning from war. There is promising momentum in recent years around gaining increased insight into MI through empirical

research. The current study seeks to add to this valuable literature by building upon the work that has already been done and adding new contributions in the area of values, bicultural identity, and meaning-making. It is hoped that these efforts will aid in the formulation of new preventative training, interventions, and treatments that can address the suffering of the thousands of men and women who have served the United States in uniform.

## Chapter Two: Review of Literature

Traumatic events have the capacity to wound an individual, both physically and psychologically (American Psychiatric Association [APA], 2013; Shay, 2014). Psychologically, this damage can result as a response to threats to one's life as well as threats to one's values. A potentially morally injurious event (pMIE) is an event that has the capacity to violate one's moral code and unique concepts of right and wrong (Shay, 2014; Litz, 2009). It is plausible for pMIEs to create long-lasting difficulties due to the friction against one's concepts of justice, fairness, purpose, control, and other existential ideas related to humanity and the world. The event itself is separate from the resultant symptoms that one may experience (Litz et al., 2019). For conceptualization purposes, there are the events that can inflict damage upon one's moral code, and then, separately, there will be a constructed system to categorize these events as well as a potential constellation of symptoms that result. In the literature, this study of Moral Injury (MI) still faces many unknowns, though experts have come to largely agree that MI is a phenomenon with unique outcomes when compared with typical fear-based trauma symptoms and warrants further research (Drescher et al., 2011; Litz et al., 2009; Maguen et al., 2017; Shay, 2014; Steenkamp et al., 2013; Stein et al., 2012).

In this chapter, the current literature related to MI will be reviewed and evaluated. This review will begin with a focus on how MI may or may not be equivalent to or distinct from PTSD, to establish clarity around diagnostic considerations. The theoretical foundations for the current study will then be explored in-depth by applying a combined Social Cognitive Theory and Identity Theory (SCT-IT) model to relevant discourse from the psychology of morality literature. Following this theoretical discussion, a comprehensive review of the extant MI research will be conducted and will include attention to the categorization of pMIEs, what is known about symptomatology following these exposures, the role of meaning-making as an

important variable, and issues in MI measurement. Finally, SCT-IT will be applied to extend the current conceptualizations of MI through exploratory investigation of motivations to enlist as a variable for study and the proposal of a possible service member/civilian bicultural identity. The objective of this overall review is to provide a thorough understanding of MI as it is presently conceived and to highlight missing components that will be the focus of the current study. It is hypothesized that these elements will have the potential to lead to improvements in MI research and to inform treatment development. Taken as a whole, this chapter will allow for a comprehensive review of MI in its entirety and will serve as a rationale for the study methodology discussed in Chapter Three.

### **Diagnostic Background: MI & PTSD**

Moral Injury (MI) is a relatively new topic within the counseling literature, and, to date, it is not an officially recognized diagnosis under accepted classification systems or within the DSM-V category of Trauma- and Stressor-Related Disorders (APA, 2013). An ample amount of uncertainty surrounds MI—which will herein be referred to as a syndrome—and disagreement exists surrounding the matter of how to accurately conceptualize its symptoms. It is valuable to consider, then, how this construct relates to other common trauma diagnoses, particularly that which is arguably most familiar among military populations, namely, Posttraumatic Stress Disorder (PTSD).

While expert opinions are mixed about how to conceptualize MI, some consensus seems to be emerging. Among trauma researchers there are differences in thought ranging from those that argue for equivalency between MI and PTSD (Smith et al., 2013), those who see MI and PTSD as distinct but overlapping or commonly co-occurring (Bryan et al., 2018; Currier et al., 2015a; Drescher et al., 2011; Farnsworth et al., 2017; Litz et al., 2009; Shay, 2014; Vargas et al., 2013), and those who see the two as completely distinct and suggest a separate diagnosis or

syndrome classification (Jinkerson, 2016). The majority of experts now seem to agree that MI and PTSD are distinct but overlapping conditions.

Despite this agreement and all that has been learned about MI in recent years, gaining a clear picture of MI as it relates to PTSD has not yet been achieved. As Litz and Kerig (2019) keenly observe, “we should not assume without evidence that MI, as a mental and behavioral health outcome, has incremental explanatory validity and clinical utility beyond concepts more widely recognized, such as posttraumatic stress disorder (PTSD)” (p. 342). Notably, as the arguments surrounding possible overlap between MI and PTSD have occurred and evidence for the distinct trajectory of MI has been sought, the PTSD diagnosis itself has also evolved with significant conceptual changes, thereby complicating this endeavor.

It is important to note these changes and also to understand that some of the expert opinions most relied on within the MI literature, and much of the research that has been conducted, were published prior to these diagnostic changes. This can make it difficult at times to assert with clarity where particular trauma experts are positioned in light of current conceptualizations and make it challenging to ensure that variables in the literature were measured in comparable ways. For example, Bryan and colleagues (2018) observed that many PTSD studies were conducted prior to the DSM-5 inclusion of guilt and shame as relevant variables, and, therefore, much research did not account for these constructs specifically. Yet, it also cannot be clearly delineated that *all* PTSD studies prior to this iteration of the DSM do not incorporate these constructs directly. A quick examination of guilt as a variable serves to illustrate this point.

When reviewing literature that may provide insight into differential diagnosis between PTSD and MI, guilt is a major variable. Diagnostically, the DSM-III included mention of “guilt about surviving while others have not or about behavior required for survival” (APA, 1980, p.

238) as a symptom, but this began to disappear in the next revision, DSM-III-R (APA, 1987), when guilt was moved to being considered only as an associated feature, where it remained in the next revision, DSM-IV (1994). It was then removed altogether from the DSM-IV-TR (APA, 2000) until finally coming full circle as it resurfaced in a limited capacity in the current edition (APA, 2013). Specifically, guilt is mentioned in the DSM-5 under Criterion D “negative alterations in cognitions and mood” under D4 “persistent negative emotional state (e.g., fear, horror, anger, guilt, or shame)” (APA, 2013). It can be seen from this example, how the trauma literature from various periods may subsequently be examining slightly different constellations of symptoms when discussing PTSD.

In its current form, PTSD criteria appear to have moved closer to alignment with conceptualizations of MI symptomatology, not only due to the Criterion D inclusion of guilt but also as a result of being moved from being in the category of anxiety disorders to the category of trauma and other stressor-related disorders (APA, 2013). An additional change in the DSM-5 that reflects how diagnostic considerations seem to be moving toward wedding MI and PTSD, rather than separating them, can be seen in the Risk and Prognostic factors. In this section, under peritraumatic factors, the DSM-5 now includes mention that, for military members, “being a perpetrator, witnessing atrocities, or killing the enemy” (APA, 2013, p. 278) are considered risk factors for PTSD. When compared to the previous edition of the DSM-IV-TR, it is evident that changes in the language of the DSM-5 are moving toward a more comprehensive picture of trauma reactions that could potentially entail MI. Yet, the current PTSD criteria are not all-encompassing for MI. Specifically, the Criterion A requirement for “exposure to actual or threatened death, serious injury, or sexual violence” does not encapsulate the full range of pMIEs as defined in the literature and discussed later in this chapter (APA, 2013, p. 271; Currier et al., 2018; Litz & Kerig, 2019).

These excluded conditions and the broader underlying variables that they represent will now be considered further. Regarding key theoretical distinctions between MI and PTSD, even in its current adapted form, some basic assumptions exist. Fear-based traumas, such as those that may lead to PTSD, depend upon situation-specific contexts that overwhelm the physiological systems of the body and evoke fear-based reactions that tend to require exposure for extinction (Steenkamp et al., 2013). On the other hand, MI may actually involve traumas that operate on a philosophical, existential, or spiritual level relating to values and actions—which can be the actions of others or oneself—and that evoke identity-based reactions, such as guilt and shame and these symptoms may not respond to exposure treatments (Steenkamp et al., 2013; Purcell et al., 2016; Zust n.d.).

It is posited that many clinicians overlook these unique aspects of MI due to some similarities in presenting symptoms. Specifically, clinicians may acknowledge the symptoms, but miss the underlying etiology. For example, Criterion C avoidance as a symptom has been explained to be present in both PTSD and MI, but is conceptualized as being due to different functional purposes; in PTSD, avoidance is a fear-based avoidance stemming from natural, physiological responses, whereas in MI, avoidance has been proposed to be a values-based avoidance resulting from appraisal-based guilt (Burkman et al., 2019; Farnsworth et al., 2017). It is unclear how additional diagnostic adjustments may need to be made to PTSD in the future to better capture, or differentiate from, MI etiology and functioning. To aid in these future endeavors, this current study seeks to contribute to these efforts through a confirmatory and exploratory investigation into MI variables. With this in mind, attention will now turn to the components that will be examined in this current study on MI, beginning with the theoretical foundations that will be used.

## **Theoretical Foundations**

The remainder of this literature review will be evaluated, and the subsequent study will be conducted, based on the combined theoretical foundations of Social Cognitive Theory and Identity theory, and this combined SCT-IT model will be applied to tenets from moral psychology. Cognitive models are well-established as relevant and appropriate for a discourse on the etiology, diagnosis, prognosis, and treatment of trauma (i.e., Beierl et al., 2019; Ehlers & Clark, 2000; Ehring et al., 2008; Foa et al., 1989; Foa & Rothbaum, 1998; Halligan et al., 2003). However, there are limitations inherent in viewing moral injury from a strictly cognitive or social cognitive perspective. Litz and colleagues (2009), for instance, acknowledge the utility of viewing trauma from a social cognitive perspective, while also recommending that future research consider using complementary models or a more comprehensive replacement model to account for “deeper and more global” (p. 698) beliefs that arise as a result of MI. Similarly, in this dissertation, the combined SCT-IT model incorporates a broader social-cognitive approach that accounts for personal agency and merges this with an identity theory of the self that can be applied to moral psychology and MI, resulting in a compatible and comprehensive theoretical foundation.

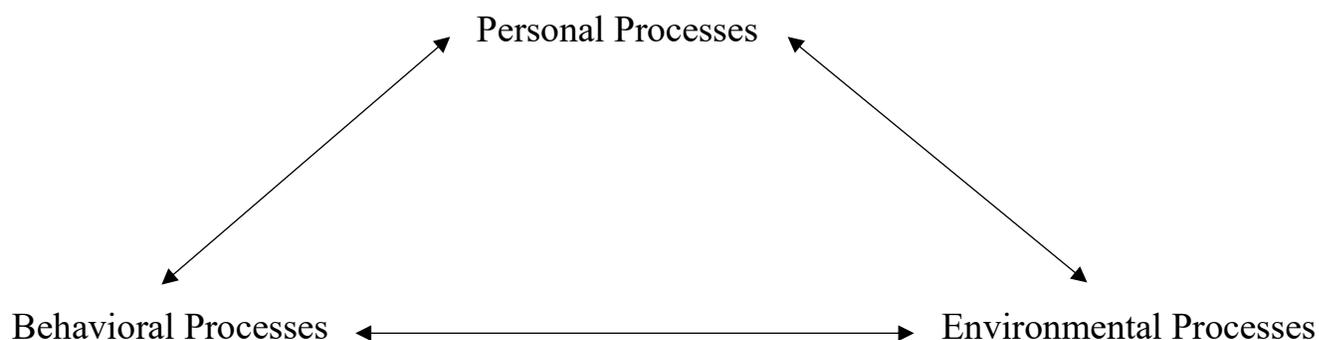
### ***SCT-IT: A Combined Social Cognitive Theory & Identity Theory Framework***

In the 1970s, a paradigm shift began to occur as much of the focus in psychology literature began to transition from behaviors to cognitions. Albert Bandura played a key role in these contributions to the field and, despite the fact that many textbooks and similar sources primarily focus on Bandura’s classic Bobo Doll experiments (Bandura, Ross, & Ross, 1961) and other earlier work (Corey, 2017; Flanagan & Flanagan, 2018; Murdock, 2017), it was Bandura’s later theoretical framework that will be the focus of this dissertation. Bandura’s Social Cognitive Theory (SCT) introduced the concept of triadic reciprocity, a model that presents behavioral,

environmental, and personal factors as three interrelated, multidirectional influences (See Figure 1; Bandura, 1986). This framework extended prior behavioral-focused theorizing to include concepts such as consciousness, motivation, and values as pivotal aspects of human functioning, thereby warranting SCT to be described as a social constructivist approach through its focus on these personal factors, which includes the fact that meaning, too, is something that is created (Bandura, 1986; Bandura, 2001).

### Figure 1

*Bandura's Model of Reciprocal Interactions*



Similarly, Identity Theory (IT) is an application of “structural symbolic interactionism” (Hogg et al., 1995, p. 256) that examines how various identities are adopted through the possession of external roles in society and internal perceptions of self, including the meaning a person attaches to those roles in a process referred to as self-verification (Stets & Burke, 2000; Stryker & Burke, 2000). Both theories speak to the role of agency, values, and a reflexive mechanism that allows for one to assess themselves in context of their social environment and roles, all of which impacts one’s behaviors, and ultimately their well-being (Bandura, 2005; Hogg et al., 1995; Schunk & DiBenedetto, 2020; Stets & Burke, 2000). Additionally, both theories define motivation and goals in terms of self-regulation processes, proposing that a person seeks to maintain equilibrium and coherence between their view of themselves and their

actions and that modifications need to be made when these are not aligned with one's personal standard (Bandura, 1986; Stets & Burke, 2000).

IT also provides adjunctive value above and beyond SCT in that it contributes valuable postulates about identity salience and commitment. The activation of identity in a particular situation results in identity salience, which in turn influences identity-congruent behaviors becoming activated (Stets & Burke, 2000; Stryker & Burke, 2000). The level of commitment that one has to a particular identity is conceptualized in probabilistic terms based upon the number of people one is connected to in that role and the strength of relationships that exist, as well as the degree of significance of relational loss that would occur if one became separated from that particular identity or role (Stets & Burke, 2000; Stryker, 1980; Stryker & Burke, 2000). Furthermore, recent iterations of IT are cohesive with what is known in the MI literature regarding dissonance, with IT positing that "identity competition" can contribute to a felt disconnect between identities and tension between competing values, self-concepts, and loyalties (Stryker & Burke, 2000). This brief overview of the complementary SCT and IT theoretical frameworks provides the SCT-IT foundation that can effectively be applied to concepts of moral psychology and the MI literature and will be elaborated on briefly in the following section.

### ***SCT-IT as Applied to Moral Psychology***

To effectively study *moral* injury, it is necessary to examine, at least briefly, the concept of morality itself. Morality is commonly understood to be a principled system that explains a general understanding of what is "right" and "wrong" or "good" and "evil." Morality literature has a long history that only in recent years began to transition from a focus on cognitive-developmental approaches and rationalistic approaches to ones more balanced between rationality and emotion and sentiment (i.e., Cooper & Hutchinson, 1997; Haidt, 2001; Kant, 1959; Kohlberg, 1976). While the literature has moved to a place of increased agreement about

the function of both rationality and emotive forces in morality, experts are still far from understanding these issues. Within the MI literature as well, a lack of consensus regarding theoretical foundations of the psychology of morality is evident. The theoretical focus among MI researchers is widely varied with emphases ranging from non-morality based foundations such as cognitive-behavioral approaches (Farnsworth, 2019) and stress models of MI (Nash, 2019), to those that overtly mention morality-based theoretical foundations oriented toward evolutionary positions of morality (Borges, 2019; Farnsworth et al., 2017), including social-functionalist approaches of survival through reciprocal care in social groups (Currier et al., 2018; Litz & Kerig, 2019). Others have focused on religious and spiritual (R/S) foundations (Koenig et al., 2019; Meador & Nieuwsma, 2018; Sullivan & Starnino, 2019), and moral decision making viewed through the concept of intuition and the moral foundation of altruism (Lancaster & Miller, 2019), whereas many others do not ground their investigations overtly to any specific theoretical foundation at all.

Given the scope and complexity of this universal phenomenon of morality, only a truncated overview of the expansive ideas pertaining to the psychology of morality will be incorporated here as it applies to SCT-IT and MI. This foundation is vital in order to establish baseline knowledge about what is understood about moral intuition, moral reasoning, moral judgment, and moral behavior and, therefore, how one may potentially come to feel morally injured. This is no easy task considering that there is a lack of consensus about these constructs and no clear dominating model of morality in the literature. Support for this assertion can be found in a statement made by Ellemers and colleagues (2019), who conducted a review of 1278 articles within the morality literature spanning the years 1940-2017, and profoundly concluded that “we were unable to clearly identify a seminal theoretical approach that has guided research on moral self-views” (p. 354). This deserves acknowledgment as a limitation when studying MI

and, yet, should not dissuade future attention, research, and efforts geared toward filling this gap. The brief examination of SCT-IT as applied to the psychology of morality literature that follows aims to not only provide for a stronger foundation upon which to study MI in this current research but also seeks to spark further interest in these complex topics for other researchers. The current exploration will be organized according to the three elements of triadic reciprocity, also known as triadic reciprocity and triadic reciprocal determinism.

**Triadic Reciprocity: Behavioral Factors.** When studying MI, the focal point of potential injury is on transgressive *acts*. These observable behaviors and pMIEs are the catalysts that allow for the potentiality of MI. According to the morality literature, moral goods are distinct from moral prohibitions, meaning that there is a unique moral impact dependent upon whether one simply restricts themselves to what is allowable (i.e., stays within the bounds of moral prohibitions) or whether they actively pursue or engage in those acts that are desirable (i.e., the “bright lights” that lead to a “full life”; Vaisey & Miles, 2014). There is a distinction between not doing harm and actively doing good. Similarly, it has been proposed that there is a distinction between engaging in action versus refraining from action. Highlighting this point, a seminal study by Greene and colleagues (2001) utilized fMRI to monitor known emotional centers of the brain while presenting participants with Harm To Save moral dilemmas commonly used by moral researchers and philosophers, such as the trolley and footbridge dilemmas. Areas of the brain that are linked to emotion demonstrated increased activity when participants were presented with moral dilemmas of a highly personally active nature (Greene et al., 2001). These moral-personal dilemmas were ones that required active participation, such as pushing a bystander into the way of harm, as opposed to a more impersonal act, such as pulling a lever that would cause harm (Greene et al., 2001). Though some have argued that study results were misinterpreted (McGuire et al., 2009), rebuttals to this critique were made (Greene, 2009) and

support for this distinction between personal and impersonal dilemmas relating to the amount of “personal force” required (Greene et al., 2009) have been found in other studies (Cushman et al., 2006; Moore et al., 2011).

Similarly, society operates with the expectation that individuals will do no harm to others; furthermore, ignorance of the fact that one’s actions will result in harm is not considered a justifiable excuse for behavior (Scarre, 2009). Ingram (2015) examines this moral responsibility from a legal perspective on moral negligence and subsequent culpability and places the discussion in the context of Arpaly’s (2003) theory of moral responsibility, indicating that all actions a person takes are their responsibility regardless of control, choice, context, or other extreme situations. Even inadvertent or unintentional actions that are done when one is not in a state that allows for calm attention and deliberation are still that person's responsibility and, while blame may be lessened in these circumstances, it is not completely removed for a person acting in these extreme states (Ingram, 2015). This assertion of blame is made even though it is simultaneously proposed that, if given the ability to consider alternative paths, one might have acted differently due to having time to allow their moral code to become activated, which indicates that having the ability to reflect or not being forced to make split-second decisions—a luxury often not afforded in war—may lead to different outcomes than when these possibilities are not present (Ingram, 2015; Yoo, 2015). This means that, as aspiring and proactive entities, human beings play an active part in creating their lived experiences even when outcomes are perceived as negative or detrimental (Bandura, 2001).

Taken as a whole, these distinctions are highly relevant in MI. Litz and Kerig (2019) allude to these separate constructs of moral-personal versus moral-impersonal actions when they declare that there is consensus in the MI literature about the existence of both acts of omission and acts of commission as two distinct types of pMIEs. If real-world experiences parallel the

Harm-to-Save laboratory studies mentioned above, there may be a reason to think that moral-personal acts of harm will result in more negative outcomes than moral-impersonal ones. Yet, these unique acts, and the potentially unique pathways and emotional sequelae are not yet well studied or understood. Additionally, atrocities that occur on the battlefield are oftentimes within the moral prohibitions of war but may not align with a service member's self-concept of their own character or what is considered morally good. As part of the self-regulatory and self-evaluative processes of SCT-IT, actions taken in war are ones for which a veteran is morally responsible and, when compared to the individual's values and ideas of right or wrong, can subsequently lead to distress when the two are not aligned (Bandura, 2001). These value systems and moral codes are developed as part of the ongoing self-reflexive mechanisms and internal processes that will now be examined further.

**Triadic Reciprocity: Personal Factors.** The personal factors of triadic reciprocity are ones that operate together to provide a higher-level conscious functioning that makes human beings diverse, purposive, and agentic (Bandura, 1986). Agency, according to Bandura (2001), "refers to acts done intentionally" where "intentions and actions are different aspects of a functional relation separated in time" (p. 6). Such capability and consciousness provides the capacity for morality, and ultimately for MI. Through forethought, self-efficacy, and self-reflection—all of which are components of the self-regulatory process—there is a sense of ownership about one's actions and a unity between one's behaviors and their perception of self, which has implications for identity and how one responds to transgressive acts (Bandura, 2001).

Forethought is a powerful mechanism of human functioning that allows a purposive agent to identify desired future states and to act intentionally and with motivation towards those goals (Bandura, 1986). Moral forethought and reflectiveness are a key component of this mechanism and serve to keep an individual aligned with their own moral code and to protect against negative

outcomes for detouring from such congruent behaviors. According to Bandura (1991), people have additional incentive to act as moral agents because “transgressive conduct is regulated by two major sources of sanctions—social sanctions and internalized self-sanctions. Both control mechanisms operate anticipatorily” (p. 68). There are repercussions for breaking social and personal standards of morality, and under most circumstances, one can calculate the risk of these consequences as part of their determinants for behavior.

Though forethought is typically active in most situations, it may give way to intuition—a reflexive and automatic cognition—in situations where an individual must act intuitively or rapidly (Haidt, 2001). It has been suggested both that a person may be more likely to enact decisions in these moments that, upon later post-hoc reflection, they have to attempt to defend due to discrepancies with their values (Haidt, 2001). Conversely, in the context of MI specifically, it has been suggested that veterans knew intuitively at the moment that a pMIE was occurring that their action or inaction was against their moral code (Held et al., 2019). That misalignment between personal standards and external action is a central aspect of MI, and more research is needed to decipher how forethought and intuition are impacted by various forces.

Another powerful force that is active in human agency has to do with one’s beliefs about their capabilities and their ability to accomplish intended outcomes. These self-efficacy beliefs extend beyond the actual skillset possessed to the judgment that one has about how to wield those skills (Bandura, 1986; Bandura, 2005). These self-efficacy beliefs are, in turn, influential in determining actions. Pertaining to efficacy, arousal states provide information to the individual and, depending largely upon whether one has learned to perceive arousal states as “facilitory” or “debilitating,” this will impact one’s appraisal of capabilities and overall self-evaluation (Bandura, 1986, p. 407). Put another way, one’s beliefs about their ability to adaptively respond to stressors and failures have tremendous influence over one’s subsequent emotional well-being

(Bandura, 2012). This assertion regarding the impact of perceived self-efficacy on coping and well-being, though not typically conceptualized or measured directly in MI research, appears to have some indirect support through studies that have examined well-being through religious and spiritual (R/S) coping (Kopacz et al., 2016b), meaning-making (Braden et al., 2015; Bryan et al., 2013; Currier et al., 2018), forgiveness and hope variables (Currier et al., 2018), and particularly through qualitative research that suggests that veterans experience improvements in mental health through changed perceptions about their ability to connect with the pain and to more fully embrace a radical acceptance of their actions and past involvement in transgressive acts (Borges, 2019).

Such coping mechanisms are also impacted by an individual's continual process of self-reflection. This continuous process of self-monitoring and evaluating oneself against their own personal internal standards allows for detection of potential mismatches between one's actions or experiences and their perceived values and identity, which may result in cognitive dissonance and emotional distress, variables were shown to be highly significant in MI (e.g., Burkman et al., 2019; Hansen, 2019; Schorr et al., 2018). In order to prevent or minimize dissonance, one must act according to their values or adjust their values, goals, and motivations to account for discrepant actions. This is particularly relevant considering that outcomes are not always achieved as intended, despite one's calculated actions (Bandura, 2001). These components of agency—forethought, self-efficacy, and self-reflection—cumulatively form the self-regulatory/self-control process.

Gino and colleagues (2011) define self-control as “the psychological capacity that enables people to enact behaviors that are consistent with their long-term goals” (p. 192). Notably, some researchers indicate that self-control is a terminable resource that can become consumed with prolonged use and, therefore, may be exhausted after a period of time, leading to

an increased likelihood of immoral or unethical actions (Baumeister & Vohs, 2016; Muraven et al., 1998). This means that in high intensity and protracted periods of stress—the types of conditions experienced in war—that self-regulation may be a resource that gets depleted, thereby making morally-congruent decision-making more difficult.

**Triadic Reciprocity: Environmental Factors.** SCT-IT posits that human behavior is socially influenced through observation, especially the observation of a member of a group to which the actor feels a deep connection or similarity or a model with shared social roles (Bandura, 1986; 2001; Stets & Burke, 2000). Observation and modeling in SCT is significant not because there is a simple “mimicry” or copying of the exact behavior observed in a model, but rather because of a process that is thought to occur in which an individual can take in and isolate the central concepts and underlying structure and significance of the behavior in order to apply it, as needed, in their own experiences and external environment (Bandura, 2005). It is this more involved process that accounts for consciousness and that highlights how personal responsibility and human agency become important.

Beyond personal human agency, however, SCT also proposes two other types of agency: proxy and collective (Bandura, 2001). Here, agency and behaviors are often dependent upon and interactive with other actors. Proxy agency involves efforts to acquire the assistance of others to achieve personal objectives or to obtain resources and results (Bandura, 2001). Collective agency refers to the cumulative interactions and exchanges that occur within a system of individuals who share goals, giftings, and behaviors to obtain desired outcomes (Bandura, 2001). The activities and exchanges with these “other participating agents” creates an interdependent social structure (Bandura, 2001). Notably, according to at least one extensive review, it was argued that attention to these intragroup mechanisms is near nonexistent, with some indication that less than a dozen publications may be produced annually with a focus on intragroup mechanisms (Ellemers et al.,

2019). Though the precise number is unknown, this review highlights that such intragroup processes are drastically underrepresented as a focus in the morality literature.

Such processes are of critical importance, however, since an interdependent social structure is extremely important within military communities where there exists a highly structured, intensely coordinated, and high stakes reliance that service members have with other members of the group. Collective environmental realities are, therefore, inevitably active in some capacity when pMIEs occur and must be considered. According to Rai and Fiske (2011),

We must abandon the assumption that moral judgments are based on features of actions independent of the social-relational contexts in which they occur (e.g., Did the action cause harm? Was the action unfair? Was the action impure?). Rather, we must reconceptualize moral psychology as embedded in our social-relational cognition, such that moral judgments and behaviors emerge out of the specific obligations and transgressions entailed by particular types of social relationships (e.g., Did the action support us against them? Did it go against orders from above? Did you respond in kind?). (p. 57)

This position, informed by Relationship Regulation Theory (RR) and Relational Models Theory (RMT), but aligned with SCT-IT, indicates that different systems of morality will exist, then, for different social relationships and systems (Rai and Fiske, 2011).

Unlike Rai and Fiske (2011) who postulate that even seemingly evil, disgusting, or aversive acts can be moral in the context of other cultures and social-relational situations—citing the example of honor killings and how these are not only acceptable but actually celebrated in certain cultural and social-relational situations—an opposing view is presented by Ingram (2015) who suggests the possibility that a person may act in ways that they believe are right due to adherence to a particular morality when their actions are, in fact, immoral. To be clear, Rai and

Fiske (2011) emphasize that their view does not eliminate the possibility of aversive or immoral acts within a given framework, but rather state that in an alternate framework that same act may be moral, whereas Ingram (2015) adheres more to an objective concept of immorality. In the words of Ellemers and colleagues (2019), "the same behaviors can acquire different moral meanings, depending on social contexts" (p. 334).

The idea that one could come to accept or even celebrate certain acts, dependent upon context, and the power of environmental pressures upon behavior are highlighted in two classic social psychology studies. The first seminal work in this area is the classic Stanford Prison Experiments, in which Zimbardo sought to determine if "good apples" in a "bad barrel" become corrupted (Miller, 2011). This has parallels to military service members who, too, are young and healthy and "good" but may be placed in the very "bad barrel" of war. What was learned in the Stanford Prison experiment was that, not only did the participants begin to act in aggressive and potentially immoral ways, but even Zimbardo himself became so detached from ethical experimental goals and was engrossed in the simulation so entirely, that he was unable to maintain an objective view as a researcher, thereby failing to stop the experiment promptly when extreme bullying began and continued to occur (Miller, 2011). Zimbardo himself later referred to himself as "evil" and, importantly, acknowledged that responsibility still falls upon those involved despite the social and situational influences that can lead one to act in such "evil" ways (Zimbardo, 2011).

The second seminal study of note here demonstrates how the influence of a person in authority, may alter one's ethical and moral behavior. The famous Milgram (1963) study on obedience involved examining whether participants would, under the direction of someone in authority, give what they believed to be the full amount of a dangerous electric shock to another individual, who was, unbeknownst to the participants, a confederate of the experimenter. The

study found that almost two-thirds of participants were, with prompting, willing to give the full shock even though it was believed to cause harm (Milgram, 1963). Additional literature adds support to this idea that when conflicting situations and moral tensions present themselves, the actor involved may be strongly influenced by those in authority and leadership (e.g., Fernandez-Dols et al., 2010).

Taken together, it can be seen that cultural and environmental influences are powerful forces acting upon an individual personally and behaviorally. Whereas actions taken by an individual, who formerly viewed those behaviors as reprehensible, are often attributed to a loss of cognitive control through deindividuation (Zimbardo, 1969). SCT-IT alternatively perceives that “people frequently engage in destructive activities, not because of reduced self-control, but because their cognitive skills and self-control are all too well enlisted through moral justification and self-exonerative devices in the service of destructive causes” (Bandura, 1986, p 389). Where anonymity and deindividuation posit a diffusion or loss of identity among a group, SCT-IT posits that it is the adoption of an identity within a group that may account for these behaviors (Bandura, 1986; Zimbardo, 1969).

These “destructive causes” are thought to be environmentally and socially influenced based upon shared values and norms of the group. “Some judgments and behaviors, such as those related to violence toward others and unequal treatment, which we may view as prescriptively immoral and which some have described as resulting from non-moral, selfish, and social biases, can reflect genuine moral motives embedded in social relationships” (Rai & Fiske, 2011, p. 69). This can become even more complicated when a person internalizes two distinct cultural identities, which may come with different value sets, thereby hindering one’s ability to blend or synchronize these moral codes due to incompatible conceptions when what is considered acceptable in one is destructive in another. For instance, a civilian identity is based on

a societal structure centrally focused on attempts to preserve peace and order, whereas military identity and social structure are created quite centrally for the purpose of training and preparing for war. The environmental forces and subsequent implications for identity are of extreme importance in MI, and more research is needed to understand the implications of this diversity that is active with triadic reciprocity.

## **Current Conceptualizations of Moral Injury**

### ***Categorization of pMIEs***

While it is agreed that a pMIE is a violation of one's moral beliefs (Litz et al., 2009; Shay, 2014), it can be seen from the morality literature that a specific moral code is not common to all individuals (Ellemers et al., 2019). Since morality emerges as a result of individually and socially constructed realities and influences, it is generally accepted that appropriate or moral behaviors are not universally applied and may change from one context to another (Ellemers et al., 2019). It must also be noted that not every pMIE will lead to extreme, long-lasting distress in every instance or for every person (Litz & Kerig, 2019). These truths and the many unknowns and disagreements about the psychology of morality make categorization of pMIEs challenging.

Various approaches have been proposed in response to this challenge. Stein and colleagues (2012), for instance, analyzed data obtained through interviews with 122 active duty service members and subsequently developed six independent, but not mutually exclusive, categories—Life Threat to Self, Life Threat to Others, Aftermath of Violence, Traumatic Loss, Moral Injury by Self, and Moral Injury by Others—that were hypothesized to be exhaustive to encompass types and aspects of military trauma. Litz and Kerig (2019), on the other hand, employ what they refer to as an intuitive heuristic to present pMIEs specifically, as opposed to military trauma in general, on a spectrum ranging from moral stressors, to moral challenges, to potentially morally injurious events; the proposed heuristic married these degrees of moral

violation with accompanying emotional and psychological responses that increase in intensity, from expected reactions and more-frequent mild frustrations to the extreme and impairing response of MI (Litz & Kerig, 2019). Yet, what constitutes a moral stressor, challenge, or injurious event is not defined and, no attempts are made to place specific events into a particular category nor to explain how these distinctions are determined (Litz & Kerig, 2019). Conversely, Frankfurt and Frazier (2016) proposed that a standardized parameter be set around what constitutes a transgressive act and suggest that the boundaries around this definition be established following systematic investigation of plausible pMIEs with the suggestion of using military rules of engagement (ROE) as a guide (Frankfurt & Frazier, 2016). This approach reflects an assumption that pMIEs can be objectively determined, whereas Litz and Kerig's (2019) heuristic and further silence on the matter implies that only categories, but not the events themselves, can be defined in this way.

Though there have been varied suggestions about what types of events would constitute a pMIE, it is proposed here that strict objective parameters, such as those proposed by Frankfurt and Frazier (2016), ignore the uniqueness of MI compared to other diagnoses and syndromes. A more subjective approach, that accounts for an individual's perception of violation of their own unique moral code, may be more beneficial. Specifically, whereas, the PTSD Criterion A requirements for a threat to life or risk of actual injury are more physiological and objective (APA, 2013), the etiology underlying events that potentially lead to MI is abstract and, therefore, more ambiguous. Utilizing a system such as ROE to define pMIEs, places morality within a human-construction of law that may not map well onto each individual's subjective experience of goodness, justice, and morality and filters the transgressive act through a presumed moral code with strong evaluative assumptions rather than seeing the act as secondary to the experience of dissonance for that particular individual. It would seem unduly limiting to systematically

define transgressive acts when morality is existential and philosophical and personal, and unique. Additionally, utilizing a system such as ROE as a measure for pMIEs, though commendable for recognizing institutional systems and social influences, limits this conceptualization to military populations and is, therefore, unnecessarily prohibitive. Furthermore, the bulk of the MI literature posits that MI results from incompatible experiences withheld schemas that subsequently results in dissonance and internal conflict (e.g., Litz, 2009). The MI syndrome is, therefore, less about the acts themselves as it is the interaction of one's moral code and the acts; this is a variable which is not overtly explored in the MI literature, but that is a focus of the current research.

To date, the most widely established categorization approach in the literature consists of variations of a two- or three-factor categorization of pMIEs. These can be best defined as Transgression-Others (T-O), Transgression-Self (T-S), and Betrayal (BT; Bryan et al., 2016; Wisco et al., 2017). Despite these broader categories being well-established, what remains unclear is whether there is increased accuracy in subsuming these categorizations into two separate categories as opposed to three. Even among those who advocate for a two-factor loading, there are differing views on and evidence for how best to subsume the categories. For instance, Nash (2013) presented two categories of Transgressions and Betrayal, thus subsuming both self (T-S) and other (T-O) transgressions into one category (also, Sun et al., 2019). Conversely, Schorr and colleagues' (2018) qualitative investigation conducted with six focus groups and analyzed using Grounded Theory conceptualized these categories based not upon the action itself, but rather where an affected veteran placed responsibility for the potentially morally violating event. As a result, they concluded that there were two categories of Responsibility of Self and Responsibility of Others, essentially subsuming T-O and BT into one category separate

from T-S (Schorr et al., 2018). Other researchers have studied the three separately and advocated for the three-factor loading (Bryan et al., 2016; Wisco et al., 2017).

In addition to this three-pronged categorization, Litz and colleagues (2019) declare that there is a general consensus in the field regarding there being two types of acts—commission and omission—that deserve attention in MI. This concept is also supported in the morality literature (Greene et al., 2001) and, yet, with few exceptions (i.e., Fontana & Rosenheck, 2004), has not been studied extensively regarding implications or distinct trajectories for mental health outcomes in the MI literature. It is, therefore, not known whether the two- or three-pronged categorization already discussed may also become further divided into subcategories based upon possible differences between acts of omission versus acts of commission. Whether there are two or three potentially unique pathways or some other categorical conceptualization, is a question for future research.

### *Symptoms*

Though the “moral injury” terminology has only more recently been seen in the literature, the concepts related to MI have existed for much longer. Studies focused on trauma and, specifically, PTSD began to lay the groundwork for the current conceptualizations for values-based trauma. For instance, a study conducted by Fontana and Rosenheck (2004), which recruited both inpatient (N=831) and outpatient (N=554) participants from VA facilities and utilized structural equation modeling (SEM), found that the act of killing was significant, that guilt acted as a mediator, and that faith and spirituality were impacted, all of which are important variables in later MI research (Fontana & Rosenheck, 2004).

As symptoms come to be better understood, researchers have emphasized the importance of examining other associated variables that may contribute to severity of these symptoms, such as transition stress (Mobbs and Bonanno, 2018), exposure to civilian death (Vargas et al., 2013),

inability to assist women and children in need (Nazarov et al., 2018), time spent deployed and exposure to combat (Frankfurt & Frazier, 2016), and specific job duties (Kessler et al., 2015) that may increase vulnerability for MI. For example, in one study MI events related to civilian deaths were shown to be the type of event associated with the highest outcomes of symptoms, dominated by spiritual/existential issues, psychological symptoms, and loss of trust as well as increased social problems (Vargas et al., 2013).

These types of pMIEs that may present increased susceptibility to MI are oftentimes more frequently encountered by certain Military Occupational Specialties (MOSs), such as combat engineers and infantry, or certain branches of the military, which may have some explanatory value as to why these MOSs were shown in at least one study to result in an increased risk of suicide (Kessler et al., 2015) and why Marines were shown to have more negative mental health outcomes following combat (Smigelsky et al., 2019). At the same time, while there may be potential increased susceptibilities in certain branches and MOSs, the nature of modern warfare increases exposure risk broadly across deployment conditions (Issacharoff & Pildes, 2013; Maguen et al., 2010; Nazarov et al., 2018), including for both men and women—who are now allowed in combat—and it is noteworthy that preliminary studies have found no gender differences between pMIE exposure and mental health outcomes (Kelley et al., 2019a), with the possible exception being in relation to resultant alcohol use (Battles et al., 2019). Knowledge about these various factors and variables continues to grow, and, yet, it is recognized that, in many ways, little is currently known about how these factors may impact veteran health and well-being.

As discussed earlier, the lack of agreement about how MI and PTSD are distinct but overlapping has led to conflated variables and a still emerging picture of evidence distinguishing between PTSD and MI symptomatology. In a model proposed by Bryan and colleagues (2018) in

an analysis of 930 National Guard members utilizing exploratory structural equation modeling, it was found that startle reflex, memory loss, flashbacks, nightmares, and insomnia are unique to PTSD whereas anhedonia, guilt, shame, social alienation, and anger are unique to MI. Where PTSD and MI are presumed to overlap, symptoms of depression and increased SI may be present (Bryan et al., 2018). Other symptoms that have been proposed for MI include emotional numbness (Bryan et al., 2016; Sullivan & Starnino, 2019), constant work (Sullivan & Starnino, 2019), marital difficulties and divorce (Sullivan & Starnino, 2019), religious difficulties or spiritual crises (Burkman et al., 2019; Drescher et al., 2011; Fontana & Rosenheck, 2004), and impacted meaning-making systems (Currier et al., 2015b). Importantly, Shay (2012) diverges from a number of other researchers who take the position that MI does not result in physiological arousal symptoms of PTSD. Shay, on the other hand, holds that MI is experienced the same as a physical assault and, therefore, results in the same bodily outcomes and symptoms as a fear-based attack and PTSD.

**Prevalence of Symptoms.** Research indicates that while a relatively small percentage of veterans meet the full criteria for PTSD, a large number report significant challenges that relate to their moral compass, spiritual and ethical beliefs, and overall worldview (Koenig et al., 2018). For instance, Koenig and colleagues (2018) in a study evaluating psychometric properties of a new measure, MISS-M, found that among their sample of 54 Active Duty military members and 373 veterans, 90% of participants experienced at least one symptom and over half of participants endorsed five or more symptoms, such as loss of trust, religious struggles, or a sense of betrayal, items that morally or spiritually based and not accounted for in PTSD criteria (APA, 2013). Another study conducted using archival data from the National Vietnam Veterans' Readjustment Study (NVVRS) and conducted through qualitative analysis and coding of open-ended interview questions, determined that from a sample of 200 (100 original sample, 100 saturation sample)

theater Vietnam veterans, 34 (17%) endorsed having experienced pMIEs and 89 (44.5%) endorsed signs and symptoms aligned with MI outcomes. The discrepancy between endorsed exposure and signs and symptoms warrants attention and may be suggestive of an inadequate exposure screening in the chosen coding methods or archival dataset and perhaps a higher percentage of pMIE was present than what was captured (Vargas et al., 2013). Specifically, in the original interviews, participants were asked about “unusual” or “stressful” events such as being in heavy combat and participants’ open-ended responses were ultimately coded in the Vargas and colleagues (2013) study as possible MI events. However, various archival data limitations and coding decisions may have prevented the detection of events that could be considered pMIEs or that were actually perceived to be morally injurious by the participants, thus contributing to the discrepancy between relatively low levels of detected pMIE and comparatively high levels of signs and symptoms reported in the Vargas and colleagues (2013) study.

Admittedly, there is a paucity of data to sufficiently account for the prevalence of MI symptoms in military populations (Kopacz et al., 2016a). Even with conservative estimates, however, a noteworthy minority of veterans endorse experiencing symptoms of MI (Wisco et al., 2017). It is well-accepted that individuals exposed to conflicts in a warzone have a high prevalence of mental health difficulties and that certain events may lead to increased susceptibility, though more is known about the prevalence for PTSD than symptoms thought to be unique to MI (e.g., Thomas et al., 2010).

**Symptoms of Transgressions-Self.** Transgressions-Self are actions for which an individual is personally responsible, through either their action or inaction and regardless of intention or context (Held et al., 2019; Ingram, 2015; Litz et al., 2009). Since a person’s actions are part of their being, these acts have a tremendous impact upon affect and identity, even when

choices were made in the most desperate situations (Bandura, 1986). In war, seemingly impossible choices need to be made rapidly despite their long-term effects (Yoo, 2015). Deciding whether to drive over a group of children or instead stop a vehicle and expose one's unit to inevitable gunfire and death, choosing whether to attempt to pull a battle buddy from a burning vehicle or to provide cover and assistance to those engaging the enemy to try to halt the attack, or being faced with a decision as to whether to give an order to a subordinate that is part of the mission, but will likely get them killed, are the types of scenarios one may face in war.

Despite the likelihood of such events, however, currently, T-S symptoms, but not necessarily T-S events, have been least endorsed across a number of studies with various samples, indicating a potentially lower occurrence of this type of MI (Currier et al., 2018; Schorr et al., 2018; Wisco et al., 2017). The "paradox of morality" however, may account for T-S symptoms being less endorsed as this paradox notes that, due to the desire to be and appear moral, individuals will be less inclined to admit to wrongdoing and may lie or deceive in order to protect the perception of their moral character (Ellemers et al., 2019). In addition to this possibility of impression management influences, T-S may also be less endorsed due to other self-report limitations such as veteran difficulty in identifying feeling-states (Yeterian et al., 2019). It has also not yet been studied whether these symptoms are less endorsed due to congruence between one's actions and perceived military identity and expectations of war that allow for such acts to be acceptable to the veteran on a moral level (Rai & Fiske, 2011; Stryker & Burke, 2000). Despite the lower reported prevalence, T-S also appears to lead to potentially worse mental health outcomes, including potentially higher rates of suicidal ideation (SI) either when mediated through guilt (Frankfurt, Frazier, & Engdahl, 2017) or when compared to other transgressive acts (Wisco et al., 2017).

***Guilt/Shame.*** Perhaps the most widely recognized MI symptoms, to date, are guilt and shame, which are prominent among the T-S symptoms. With few exceptions (Bryan et al., 2016), there have been consistent findings that T-S is significantly and at least moderately associated with guilt and shame (i.e., Currier et al., 2018; Held et al., 2019; Jordan et al., 2017). In at least one study in which guilt was not found to be statistically significant with T-S, there was a significant finding of emotional numbing, which could possibly account for this difference (Bryan et al., 2016).

Guilt and shame are self-reflective emotions, byproducts, then, of the self-regulatory capabilities of human beings (Bandura, 2001; Ellemers et al., 2019). Yet, how these symptoms are measured is varied, and descriptions for these emotions are not unanimously agreed upon (Tignor & Colvin, 2017). For instance, where Janoff-Bulman and Carnes (2013) describe guilt as related more to inhibition and shame to activation, Ellemers and colleagues (2019) state the reverse. Others state that “shame and guilt are more alike than different; the small differences between them are a matter of degree” (Leach, 2017, p. 8), thus concluding that they are quantitatively, not qualitatively, distinct (Leach, 2017). Whether these emotions are viewed as distinct (Tangney et al., 2007) or on a unidimensional continuum (Leach, 2017), what is well agreed upon is that these are self-blaming in nature.

The agentic perspective and self-reflexive process of these emotions explain how both guilt and shame have come to be considered secondary or “manufactured” emotions (Bryan et al., 2018; Ellemers et al., 2019). These emotions are manifested during post-hoc reflections and oftentimes are considered to be functional as an adaptive component of moral pain that allows for an individual to self-correct behaviors that are not aligned with their held identities and moral codes (Borges, 2019; Farnsworth et al., 2017; Nash, 2019; Norman et al., 2014). Such functional

guilt is notably different from dysfunctional guilt that is often observed in MI, and that is thought to lead to increased negative mental health outcomes (Frankfurt & Frazier, 2017).

Guilt and shame are often correlated with symptoms of re-experiencing and avoidance of reminders of the transgressive act (Litz et al., 2009), and in a recent study, Jinkerson and Battles (2019) found preliminary support for guilt as a mediating variable between pMIEs and secondary symptoms of depression, anxiety, avoidance, and re-experiencing. Moral emotions of guilt and shame can additionally lack outward, observable expressions and can often be coupled with isolating responses and defenses that subsequently interfere with social connection (Ellemers et al., 2019). This may partially explain the proposed role of guilt as a core symptom that produces secondary symptoms, and it may be that social isolation could also manifest as a result of guilt.

For example, in one qualitative investigation with eight veterans who had combat experience, pMIE exposure, and endorsed symptoms of guilt and shame, only one had processed this event or these emotions in a non-treatment setting (Held et al., 2019). Yet, “virtually all of the veterans explained that opening up was difficult but vital in their recovery process, as it provided them with perspectives that they could not have generated on their own” (Held et al., 2019, p. 402). Despite the verbalized need for open and transparent discussion of these emotions, however, veterans are not only hindered in this process in personal settings, but may also be met with barriers in clinical settings as well. Specifically, research has found that participants had not been directly asked about certain morally-related events and atrocities despite being in treatment (Litz et al., 2009; Schorr et al., 2018) and this seems to be particularly true in regard to professional inquiry about the specific act of killing in combat, which is thought to be a particularly impactful pMIE associated with unique difficulties (Burkman et al., 2019; Maguen et al., 2017).

The act of killing has been shown to have distinct pathways and sequelae symptoms compared to other traumatic events such as those that are strictly fear-based, and the act of taking a life has been reported by veterans to be a significant moral difficulty (Burkman et al., 2019). Researchers have found that “problem-focused thoughts” were found to be significant in the association between combat killing and all negative mental health outcomes (Kelley et al., 2019b) and that killing is associated with higher levels of distress, especially when a higher number of killing incidents are reported by an individual, which may lead to a higher risk of suicide (Maguen et al., 2017). In addition to multiple killings, a study conducted by Frankfurt and Frazier (2016) found that veterans who had killed in a state of anger or rage compared to those who had killed while not in an “out-of-control” state, experienced higher levels of suicidality. Notably, little is known about these enraged killings and this is a potential area for further research that will not be addressed in the current research. However, it is supported from the SCT-IT framework and psychology of morality literature that engaging in pMIEs as an active agent (moral-personal act) as opposed to failing to act or passively acting (moral-impersonal act) has potentially unique trajectories or degree of impact upon mental health outcomes (Greene et al., 2001) and that enraged killings may influence one’s perception of self and increase self-sanctions and condemnation (Bandura, 1986; 1991). Similarly, Fontana and Rosenheck (2004) found that moral-personal acts had direct effects on a service member’s experience of faith, reducing the comfort received from R/S practices, and also found an indirect effect through guilt for agentic acts (moral-personal), accounting for a stronger association with negative outcomes when compared with moral-impersonal acts.

Regarding treatment implications for what is known about guilt and shame in MI, it has been proposed that many of the cognitive interventions that are commonly practiced in trauma approaches overlook, and potentially unintentionally minimize, the force and importance of these

differing military and civilian values by trying to contextualize the morally injurious event. When considering pMIEs, the event is oftentimes perceived by the veteran in a reasonably accurate way, at least in terms of the acts that transpired, and it is, therefore, of no therapeutic benefit for the counselor to attempt to “correct” “distorted” thoughts as this would likely damage rapport and leave the veteran feeling invalidated (Borges, 2019). Furthermore, in a commentary against the use of Socratic questioning for treatment of certain war-traumas and MI, Gray and colleagues (2017) indicated that such an intervention can be ineffective or even potentially harmful through its focus on moral reassurance rather than moral repair (Gray et al., 2017).

Moral reassurance aims to provide rationalization for transgressive acts and give logical reasoning to account for what occurred. Yet, this approach is oftentimes ineffective. For example, Schorr and colleagues (2018) discovered that veterans can justify their actions due to the extenuating situational circumstances they found themselves in and still suffer consequences, and Stein and colleagues (2012) showed significant correlations between T-S and two subscales of the Trauma-Related Guilt Inventory, that indicated high levels of guilt even when soldiers were able to acknowledge the situational realities that prompted their actions. The ability to cognitively recognize the context for the transgression does not appear to provide significant protection against MI on an emotional level. In fact, a veteran “may even acknowledge having honored one set of morals by this action (defense of the country, following orders, protecting his men), and, yet, still experience considerable distress about how those actions conflict with a separate set of morals (e.g., do not kill, protect the weak)” (Schorr et al., 2018, p. 2208). Consequently, treatments that focus on moral repair, which addresses these deeper philosophical and values-based forces and the dissonance caused as a result of incongruence, may be more effective than a focus only on moral reassurance.

As future interventions are developed to address the complexities of MI, particularly in regard to feelings of guilt and shame, MI-specific symptoms and variables will need to be considered. Among others, some of these relevant variables may emerge from five main themes that were found to be relevant in a qualitative study that found the following elements to be significant: timing (of the realization that a moral violation had occurred as well as the resultant cognitive and emotional struggles), the influence of contextual factors on decision-making (chaos, power/rank, proving oneself), reactions to moral injury (emotional, repetitive thoughts about the incident, substances to cope, secrecy, reparations), search for purpose and meaning (susceptibility to continued MIE owing to prior value violations, feeling less human, role conflict/difficult of duality from military to civilian life and expectations), and opening up (fear of disclosing) (Held et al., 2019).

**Symptoms of Transgression-Other.** In war, there is not only the danger of engaging in transgressive acts but also being witness to them as well. T-O occurs when a service member is privy to the actions of another person or persons that violate their moral code and may include occurrences such as bearing witness to a fellow soldier torturing or killing civilians and combatants, seeing an enemy soldier using a child as a human shield or deterrent for attack, or observing the mishandling of human remains. T-O, here, also includes betrayal events in which another person transgresses against the veteran themselves, such as friendly-fire incidents, lack of in-unit support or trust, or a military leader enacting high-risk orders that are deemed to be unwarranted. Notably, such “betrayal by systems” events were the most endorsed in at least one study (Schorr et al., 2018) and T-O events, in general, are endorsed more than their T-S counterparts (Currier et al., 2018; Schorr et al., 2018; Wisco et al., 2017).

T-O has been found to correlate significantly with symptoms of re-experiencing, numbing, and avoidance (Bryan et al., 2016; Kelley 2012), as well as pessimism (Bryan et al.,

2016), and loss of trust (Bryan et al., 2016; Currier et al., 2018). These symptom patterns reflect seemingly high correlations with PTSD and are, therefore, suggestive of more overlap with PTSD when examining T-O as compared to T-S. Additionally, when examining T-O symptoms, BT as a subscale of T-O has demonstrated significant correlations with suicide attempts (Wisco et al., 2017) and observing the aftermath of battle, which is here conceptualized as a component of T-O, showed peritraumatic correlations with horror (Stein et al., 2012).

In addition to the symptoms noted above, anger has been well-established as a primary symptom in MI (e.g., Currier et al., 2018; Jordan et al., 2017), including manifestation as peritraumatic anger (Stein et al., 2012). In a study of 867 Active Duty Marines with combat experience, the path from BT to PTSD through anger was also supported, and it was argued that BT events would correlate with lasting anger due to distinctions between this type of transgressive act and others (Jordan et al., 2017). While anger can also present in T-S events, it is thought to be more predominant in T-O events (Frankfurt & Frazier, 2016).

In general, the emotion of anger is thought to largely arise due to goal-interference as well as due to affronts to one's sense of justice and fairness, which, in turn, can activate a desire for revenge (Aristotle, 1941; Haidt, 2003) and is an emotion that is acknowledged to be part of a triad of other-condemning moral emotions, along with disgust and contempt (Haidt, 2003). This other-condemning aspect of this affect type may possibly support anger as being a symptom more highly correlated with T-O events. It is possible, too, that this and other moral emotions may partially account for the social isolation and lack of trust and support that is often seen in response to T-O (Houtsma et al., 2017) since moral emotions act as motivators in responding to others in one's environment (Haidt, 2003). T-O appears to impact trust and social connection, but it is not yet understood how these mechanisms operate nor what the function of anger may be in these disruptions.

Until recently, two remaining and other-condemning emotions of disgust and contempt were not studied in regard to the possible prevalence or impact upon MI (Farnsworth et al., 2014). Disgust has only been briefly acknowledged in previous extant literature (Borges, 2019; Held et al., 2019; Litz & Kerig, 2019; Stein et al., 2012), though not as a major focus of attention, and it has also been included as an item on measures used in previous studies (Bryan et al., 2018), though results on these items were not discussed directly in resultant publications, and, therefore, it is currently unknown what its impact or significance may be. In fact, on at least one occasion, researchers in a qualitative investigation chose to exclude an event reported by a veteran to be disturbing, because the primary emotion identified by the veteran, in response to seeing “a grotesque scene of death and mutilation,” was named to be disgust and it was determined by researchers to be “related exclusively due to the visual aspects of the event with no apparent moral conflict regarding how or why the event occurred” (Schorr et al., 2018, p. 2206). Yet, moral disgust has been suggested to be a reaction when the moral virtue of purity has been violated, and it may be difficult for a veteran to verbalize this activation (Haidt, 2003). Disgust as a variable has been included as part of a subscale on EMIS-M (Koenig et al., 2019), and both disgust and contempt were suggested as mechanisms for future study in Frankfurt and colleagues (2017). These suggestions warrant consideration since the three emotions in this other-condemning triad are gaining recognition as being distinct, yet tend to be conflated in research (Hutcherson & Gross, 2011), or simply lack research from a moral perspective (Tybur et al., 2013) and, therefore, further attention with clarity in the measurement of these items may provide future insights into the symptoms for T-O events.

### ***Meaning Making as a Mediating Variable in MI***

There is growing evidence that meaning-making acts as a significant variable impacting MI outcomes (e.g. Braden et al., 2015; Bryan et al., 2013; Button et al., 2017; Corona et al.,

2019; Currier et al., 2015b; Sullivan & Starnino, 2019), though some unexpected exceptions have recently been noted (Jinkerson & Battles, 2019). Meaning-making is a complex variable that has been the subject of much debate as to its definition and function with at least two major overarching conceptualizations emerging, with some varied interpretation within those larger contexts. The first conceptualization that seems to show increasing attention explores meaning through the three components of coherence, purpose, and significance (George & Park, 2016; Heintzelman & King, 2014; King et al., 2006; Martela & Steger, 2016; Steger, 2012), though this conceptualization does not tend to overtly present in the MI literature.

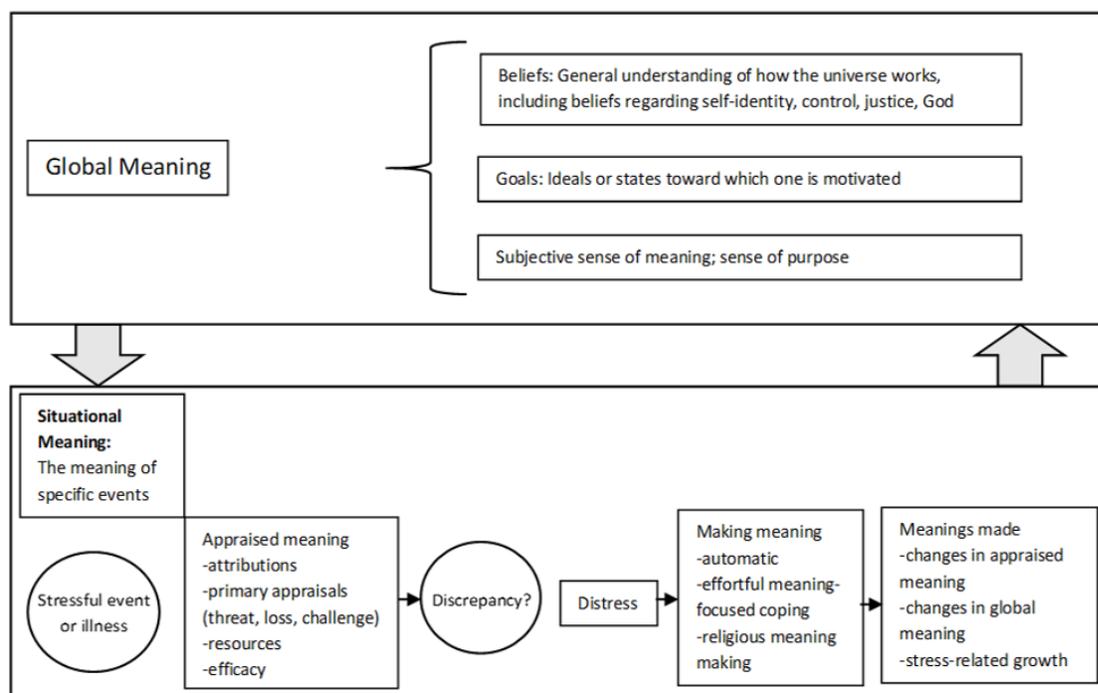
The second major conceptualization of meaning-making that has gained momentum, regards meaning-making as being primarily composed of two levels—global and situational meaning—and posits that there is the possibility that incongruence can arise between the two levels (Janoff-Bulman, 1992; Park, 2010; Park & Folkman, 1997). This conceptualization has been often cited in the MI literature (e.g. Corona et al., 2019; Currier et al., 2015b; Kopacz et al., 2019) and the global and situational meaning-making approach has been synthesized and is represented in the Meaning Making Model (MMM; See Figure 2, Park, 2010). In this framework, when the two levels of global meaning and situational meaning are in opposition, when a “discrepancy” exists, emotional dysregulation and dysfunction is said to occur and some form of reconciliation will need to transpire to adjust one or the other of these two levels so that they are once again compatible (Park, 2010). Additionally, this model distinguishes between the active process of meaning-making and the end result of meaning made (Park, 2010).

This active process highlights the idea that, as human beings experience life events, they are also in a constant state of evaluation about themselves and the world around them. As explained through the SCT-IT framework, this continual process of self-regulatory and self-evaluative mechanisms serves to inform an individual about compatibility between the three

elements in the triadic reciprocity model (Bandura 1986; 2001). Self-disapproval results when there is discrepancy or dissonance between one's internal standard of right and wrong (global meaning) when compared to their external actions within the environment (situational meaning) (Bandura, 2001). The construct of dissonance has come to be largely recognized as active in MI and it is thought that the degree of dissonance one experiences between their self-ideals and their actions may also be reflective of MI's severity (Hansen, 2019; Jinkerson, 2016; Litz et al., 2009).

## Figure 2

### *Re-creation of Park's (2010) Meaning Making Model*



Importantly, the veteran's perception of the event that causes dissonance is often accurately perceived. As Farnsworth (2019) explains, the distressing thoughts associated with one's behaviors during a pMIE in wartime are often not distorted or "falsifiable," but rather may simply be disagreeable from a moral or ethical standpoint. While there is some disagreement about the intensity of change that may occur in one's values in response to pMIEs, between those who indicate that worldviews can be "shattered" (Janoff-Bulman, 1992) versus those who

suggest they are merely “shaken” (Poulin & Silver, 2019), it is agreed that these difficult or traumatic life events result in distress and possible changes to perceptions of the world. It has been proposed that while it is possible to “return to baseline” and a pre-trauma level of functioning, there is also the possibility for resilience, decline, or growth (Bonanno & Mancini, 2012; Lerner & Blow, 2011; Mancini, 2019). In order for dissonance to be a catalyst for healthy growth, negative events may need to be reappraised in new ways. Yet, when it comes to issues of morality and worldview, “people require more evidence to perceive improvement than decline” (Klein & O’Brien, 2016, p. 1) making this process particularly difficult in situations where transgressive acts have occurred.

There is not yet clarity around the mechanisms that could lead to improvements and posttraumatic growth when it comes to MI, but there is evidence that this is an area for additional research. In recent years, several MI researchers have begun to look at meaning-making as a variable and it has been shown to be significant as a mediator between MI and negative mental health outcomes such as depression and PTSD (Currier et al., 2015b), a moderator between pMIEs and SI for T-O, but not T-S events (Corona et al., 2019), and was negatively correlated with endorsement of suicidality among two studies examining samples of veterans with depression (Braden et al., 2015; Bryan et al., 2013), as well as being identified as a significant theme in several qualitative investigations (Held et al., 2019; Nilsson et al., 2015; Purcell et al., 2018; Schorr et al., 2018; Sullivan & Starnino, 2019).

It is also proposed here that religion and spirituality may be related to global meaning since they, as a construct, may serve as a manifest variable for the latent variable of meaning-making. Religion and spirituality relates to core values, beliefs, and worldviews that provide a person with purpose and significance and may, therefore, be an indirect measure of meaning-making. Importantly, a small representation of researchers in the field have begun to measure

R/S constructs in relation to MI, with 72.2% and 80% of participants in one sample indicating religion and spirituality, respectively, to be an important or very important factor (Koenig et al., 2018; Meador & Nieuwsma, 2018). In another study with 472 veterans, results indicated that issues with forgiveness and negative religious coping (RCOPE), which potentially reflects a failure in meaning-making, showed a relationship with suicide risk (Kopacz et al., 2016b).

Despite its potential importance, many researchers overlook this construct of meaning-making. This is particularly evident on a treatment level, with many providers having not been taught to include these components into assessment or treatment. Many practitioners express discomfort with R/S-focused interventions specifically and may have even been taught to intentionally avoid such topics in therapy (Burkman et al., 2019). Considering the possibility of its correlation to meaning-making as a variable, as well as the indications from the extant literature about this variable's significance, this is noteworthy. Unlike the physiological responses of fear that occur in PTSD, there are culture-bound responses to pMIEs that appear to require a mediating or moderating value-assessment or meaning-making component; to better understand these worldview and spiritual components, this may need to be a more direct aspect of research, assessment, and treatment. Promisingly, it appears that perhaps in the last decade this variable seems to be gaining momentum with more researchers and clinicians acknowledging these R/S variables (Wortmann et al., 2017), values-focused assessment and intervention (Braden et al., 2015; Bryan et al., 2013; Button et al., 2017; Corona et al., 2019; Currier et al., 2015b; Sullivan & Starnino, 2019), and also indicating the ethical obligation to expand one's knowledge in these areas to best practice in multiculturally competent ways (Vieten et al., 2013).

## Issues in MI Measurement

Importantly, previous attempts to measure the prevalence, intensity, and trajectory of MI have revealed the need for a more refined assessment protocol for MI. A central source of debate about the most popular measures used today is the manner in which they confound event exposure and symptoms, which interferes with the measure's ability to adequately track symptoms of MI and how those symptoms change over time and improve with treatment (Currier et al., 2018; Koenig et al., 2019). Of 42 MI measures examined by Koenig, Youssef, and Pearce (2019), only three assessed for events-only, twenty-three scales measured symptoms-only, fifteen included both symptoms and events, and one remaining scale measures cognitions and beliefs specifically. The most commonly utilized measures, the Moral Injury Events Scale (MIES) and the Moral Injury Questionnaire-Military version (MIQ-M), are included among the group that captured both causal events and mental health and behavioral effects for moral injury (Currier et al., 2015a; Nash et al., 2013).

Consequently, among MI researchers, there is beginning to be a call for measure development that can fill this critical gap. To date, two measures—the Moral Injury Symptom Scale-Military version (MISS-M) and the Expression of Moral injury Scale-Military Version (EMIS-M)—have been created and discussed for their potential to address the symptom-only measurement/tracking issue (Currier et al., 2018; Koenig et al., 2018; Koenig et al., 2019; Yeterian et al., 2019). Additionally, efforts are underway for development of a gold standard measure through the Moral Injury Outcome Scale (MIOS) consortium, an international effort composed of researchers and clinicians around the globe (Yeterian et al., 2019). This effort is being undertaken because, despite possible improvements and advantages in both the MISS-M and EMIS-M, some shortcomings exist in these measures owing to their manner of test construction, such as the lack of surveying the relevant population to identify experiences in a

qualitative process, which is a gold standard process of measure development and a process that was not conducted (Yeterian et al., 2019).

Other factors that may need to be addressed as improvements to MI measures are made include the fact that there are not measures that clearly distinguish between pMIEs in which an individual was a perpetrator as opposed to an observer (Frankfurt & Frazier, 2016). Currier and colleagues (2018), in their process of developing the EMIS-M and as a result of exploratory factor analysis, did, however, utilize a structure with a first factor of other-directed events and a second factor of self-directed events for a total explained variance of 62.83%. This structure is a critical first step in addressing the important distinction between perpetrated events and observed events. In that same development process, the developers also made deliberate choices to include items that maintain the moral-focus for MI assessment and that do not assess other potentially related symptom criteria such as those in PTSD and MDD, which is valuable for detecting divergent aspects of the syndrome (Currier et al., 2018).

A final potential shortcoming of current MI measures is noteworthy. Specifically, clinicians working with MI report that veterans find it challenging to identify feeling-states regarding the experience of pMIEs (Yeterian et al., 2019). Researchers then, may benefit from considering how the possible etiology of these deficits—avoidance, memory loss, emotional numbing, or otherwise—may reflect mechanisms that could also impair the accuracy of self-report measures above and beyond possible impression management realities that could also impact these assessments (Ellemers et al., 2019). While current measures, including Phase I of the MIOS Consortium's efforts to develop a new scale, involve obtaining participant experiences via interviews and self-report techniques, this possibility of participant barriers begs the question whether what is being measured is, in fact, within the veterans' conscious awareness. To enhance the data, it would be possible to include biofeedback measures or other techniques that may

provide supplemental data about physiological functioning and response that is outside of one's awareness.

Taken together, it can be seen that, to date, measures that have been utilized for MI research are piecemeal and limited and no measure yet exists that has been designed to capture the entirety of the MI constellation of symptoms. Rather, independent measures have been used to assess for various aspects of MI symptoms such as guilt and depression (Currier et al., 2018; Jinkerson, 2016). Standardized measures for MI that have clearly defined parameters and strong validity and reliability are lacking overall. Clearly, the lack of adequate or agreed-upon assessment is problematic in the ongoing study of MI. Koenig and colleagues (2019) found that of the 42 evaluated assessments, not a single measure has yet been developed or tested according to “gold standard methodology.” While it is beyond the scope of this dissertation to fully address this issue, it is necessary to highlight these concerns and the present state of psychometric testing for MI. This discourse is relevant given the limitations of current measures, which will influence decision-making for measurement selection in the study and impact outcomes. There is a need for an adequate psychometric evaluation tool, not simply continued use of ones that fall short, and future research should focus on this development of adequate measures.

### **Utilizing SCT-IT Foundations to Extend MI**

The review presented here, detailing current conceptualizations of MI, indicates that a picture is beginning to emerge, but is not yet in focus, regarding the etiology, trajectory, and associated variables for MI. Filtering the extant literature through the SCT-IT framework has revealed key areas that can be targeted for further research in an effort to provide value to the MI research and assist in clarifying the emerging conceptualization of this important syndrome. Though several gaps have been identified, the current study will focus on two initial variables—motivations to enlist and bicultural identity—for investigation based on relevant literature.

### ***Motivations to Enlist***

Military analysts and other researchers have extensively investigated the reasons that individuals enlist in the military (e.g., Griffith, 2008; Helmus, 2018; Mankowski et al., 2015) and, as a result, have identified primary core drivers motivating an individual toward this decision. Yet, how these motivations impact mental health outcomes, in general, and MI, in particular, has, to the author's knowledge, not been investigated. According to SCT-IT, forethought influences one's goals and actions based upon imagined futures and expectancies, and these motivators are typically connected to one's sense of self in terms of their identity and self-efficacy (Bandura, 1986; Stryker & Burke, 2000). It has been proposed that common motivations for enlistment include (1) long-standing interest in the military, usually as a result of media or family ties, (2) personal development not pertaining to monetary incentives, (3) professional development related to job training, (4) college/GI Bill benefits, (5) unclear life direction and lack of alternate objectives, indicating that enlistment may be impulsive, (6) a planned stepping stone in which a person plans to utilize time in service to develop other career goals, (7) a way to flee unpleasant life circumstances, (8) desperate decisions when other options have not materialized and military enlistment seems to be all that is available, (9) desire to serve/patriotism/sense of duty, (10) desire to serve a grander purpose beyond oneself, and (11) travel (Hansen, 2019; Lawrence & Legree, 1996; Mankowski et al., 2015; Taylor et al., 2015).

This larger set of factors has often been studied according to Moskos' (1977) conceptualization of institutional versus occupational drivers for military enlistment where institutional motivations are rooted in internal values, reflecting a sense of honor and duty that one is highly dedicated to, and where occupational drivers, on the other hand, are based on a post-conscription, free-market military, and motivations that pertain more to economic gain and self-interest (Clever & Segal, 2012; Korb & Duggan, 2007; Woodruff et al., 2006). However, it

has also been found that a four-factor, as opposed to two-factor, loading may be more appropriate to categorize these motivations (e.g., Griffith, 2008; Woodruff et al., 2006), resulting in the categories labeled as “future-oriented” and “pecuniary” having been proposed in addition to “institutional” and “occupational” (Woodruff et al., 2006). Similarly, motivations to enlist have been conceptualized according to intrinsic (institutional and future-oriented) versus extrinsic goals (occupational and pecuniary), while also assessing along another dimension of high or low constraint, to measure whether a service member freely entered the military or did so as a result of external pressures (Krebs & Ralston, 2020).

It has been shown in one study, that participant’s military goals, conceptualized through enlistment motivations, impacted identification and behavioral outcomes, where intrinsic goals correlated with an increased positive perception of the Army as well as significant positive identification with the military (Woodruff, 2017). Though this study did not measure mental health outcomes, results suggest important identity-relevant implications, which in turn, may align with values, morals, and, subsequently, MI.

Considering the distinction between intrinsic and extrinsic goals, the possibility of free versus pressured choice, and the resultant impact upon identification with the military, it is evident that there are unique constellations of reasons why a person may choose to enlist in the military. It is not known, however, whether a veteran’s original motivation to enlist will contribute to perceived goal interference, or values and identity incompatibilities, that may interact with exposure to pMIEs to impact mental health outcomes. This is proposed to be potentially significant due to the dissonance that may arise due to incongruence between one’s initial military expectations and driving forces to enlist and their actual lived experiences in war.

### *A Proposed Service Member/Civilian Bicultural Identity*

If a moral injury is conceived to be based upon an individual's adopted moral code and worldview and if behaviors and environmental interactions largely result from these beliefs, then it logically follows but requires empirical support to show, that, should one's values change, their behaviors and relational patterns will inevitably adapt in order to be congruent with the altered underlying belief system. In an exploratory survey conducted with 67 experts in the field of trauma and humans rights abuses, 88% of participants indicated endorsement that, based upon their professional experiences and opinion, enduring personality change can result from trauma, of which war exposure was ranked the third-highest perceived cause, only behind torture and concentration camp experiences (Beltran & Silove, 1999). Of factors endorsed as likely forces to contribute to the ICD-10 category of Enduring Personality Change after Catastrophic Experience (EPCACE, World Health Organization, 2004)—which was a major focus of that investigation—repetitive or prolonged exposure (such as in the exposure in our longest wars) and forces related to existential beliefs were cited by a large percentage of respondents (Beltran & Silove, 1999). Shay (2014) also asserts that good character can be altered in adulthood and makes a case that current diagnostic understanding falls short of accounting for this. From a diagnostic standpoint, then, practitioners must consider whether observed changes in behaviors and personality are pathological or merely a reflection of diversity and multiculturalism—changing identity—within the same individual.

However, it is not only transitioning values and identity that may cause such effects, but also differing value systems that are held simultaneously. It has been acknowledged that conflict can exist between the values of different communities that one belongs to (Currier et al., 2018), that MI can impact the quantity and quality of social relationships that one has (Farnsworth et al. 2017), that one can “[possess] as many selves as groups of persons with which they interact”

(Stryker & Burker, 2000, p.286), and that veterans sometimes report an internal “tug-of-war” between a service member and another self-identity (Borges 2019). From an SCT-IT perspective, these observations warrant attention from an identity perspective, rather than simply a symptomology perspective.

It is also well-accepted that military and civilian realities, and subsequent demands, are often, if not completely at odds, at least very unique from one another. There is a distinction between military and civilian values, and certain standards and expectations become indoctrinated into recruits during military training (Gray et al., 2017). In the transition from civilian to soldier, individuals are highly trained with hyper-focus on how to immerse themselves into military culture, yet, in the transition following military service, there is an abrupt transition with no guidance on how to reintegrate into holding the new status of veteran (Bandura, 1986; Mobbs and Bonnano, 2018; Morin, 2011) and, despite Bandura’s (2001) declaration that, “people do not change from week to week what they regard as right or wrong or good or bad” (p. 9), this statement does not fully account for those who face such stark transitions or for those who may hold two, sometimes conflicting, identities.

For an individual that has adopted two distinct cultures, and assumed, as a result, a bicultural identity, “right or wrong” may, in fact, change from week to week, from deployment to discharge, or from the battlefield to the ballfield. Organizing and living out dual, sometimes competing, identities and schema sets are highly complex (Brannen & Thomas, 2010; Chen et al., 2013). The construct of Bicultural Identity Integration (BII; Benet-Martínez et al., 2002) addresses this idea of dual-identity conflict versus integration. Those that are high in BII perceive their dual-identities as compatible, whereas those low in BII experience high ambiguity or tension between the two (Benet-Martínez et al., 2002). Frame-switching is a term used to explain the context-dependent interpretation patterns that occur for a bicultural individual

requiring them to match whichever cultural environment and “cultural meaning system” they are currently immersed in (Benet-Martínez et al., 2002; Fu et al., 2007; Mok et al., 2010), and it has been shown that one’s level of BII impacts their manner of frame-switching (Benet-Martínez et al., 2002) and also their mental health outcomes (Chen et al., 2013). For instance, Chen and colleagues (2013) conducted a series of five studies, both cross-sectional and longitudinal, with bicultural participants and found consistent results that BII and psychological adjustment were positively correlated (Study 1  $r(211) = .20, p < .01$ ; Study 2  $r(237) = .31, p < .001$ ; Study 3  $r(171) = .11, p = .07$ ; Study 4  $r(65) = .48, p < .001$ ; Study 5  $r(151) = .19, p < .01$ ).

For those individuals with a bicultural identity, research has suggested that there are certain cultures that are better able to tolerate discrepancies between their dual-culture identities and moral codes than others (Peng & Nesbitt, 1999). For example, the ability to engage in “dialectical thinking” reflects a capacity to assess life from various vantage points and tolerate discrepancies in situations. Preliminary research has found that inconsistencies tend to be less tolerated in Western cultures, which can impact mental health outcomes due to a hypothesized draining of resources through consistent self-monitoring (Chen et al., 2013), which can also be conceptualized as depletion of self-control (Baumeister & Vohs, 2016; Muraven et al., 1998). However, this concept of bicultural identity has not, to the author’s knowledge, been studied in military populations, let alone in the context of its possible influence on MI. It is, therefore, not known whether this variable exists or how it may influence mental health outcomes following pMIE exposure. It is proposed here that military culture does, in fact, represent a distinct culture from that of a civilian culture and identity and that more data is needed to understand how cultural loyalties and the BII construct may be active in this population (Benet-Martínez et al., 2002; Chiou & Mercado, 2016). Admittedly, this categorization does not take into account the many variations that will also exist between individuals due to other possible cultural identities

(i.e., racial/ethnic, sexual orientation, etc.), and, yet, for the purposes of the exploratory research aims of this study, this societal role distinction will be the solitary focus in terms of bicultural status.

Support for the need of this research attention also comes from previous MI studies and military research. For example, in a study conducted by Bryan and colleagues (2016) examining MI, National Guard participants showed higher MIES scores compared to the Active Duty participants. It has been hypothesized that National Guard and Reservists may experience increased difficulties compared to Active Duty service members, due to the former discharging from deployment immediately back to civilian environments, whereas the latter remain immersed in military communities, which may provide more opportunity for a shared understanding of experiences and act as a protective factor against MI (Bryan et al., 2016). There may be an increased awareness of biculturalism or felt marginalization in the civilian environment and perceived incompatibility of values and experiences during the two major transitions into and out of the military or in relation to the three roles of civilian, soldier, veteran (Mobbs & Bonnano, 2018), but research is needed on this variable.

Furthermore, it has been determined that MI symptoms often arise not as peritraumatic responses but rather as posttraumatic ones (Stein et al., 2012), which has been hypothesized to be attributed to the time the veteran has to reflect and due to “struggling to reconcile civilian norms with those on the battlefield” (Schorr et al., 2018, p. 2208). It is suggested here that it is not simply a matter of time granted for reflection, but also environmental context and cultural identity factors that are relevant. There is support in the literature for the importance of community involvement in the moral repair process as veteran’s seek to realign their experiences with the meanings that they hold in life (Button et al., 2017), but there has not been

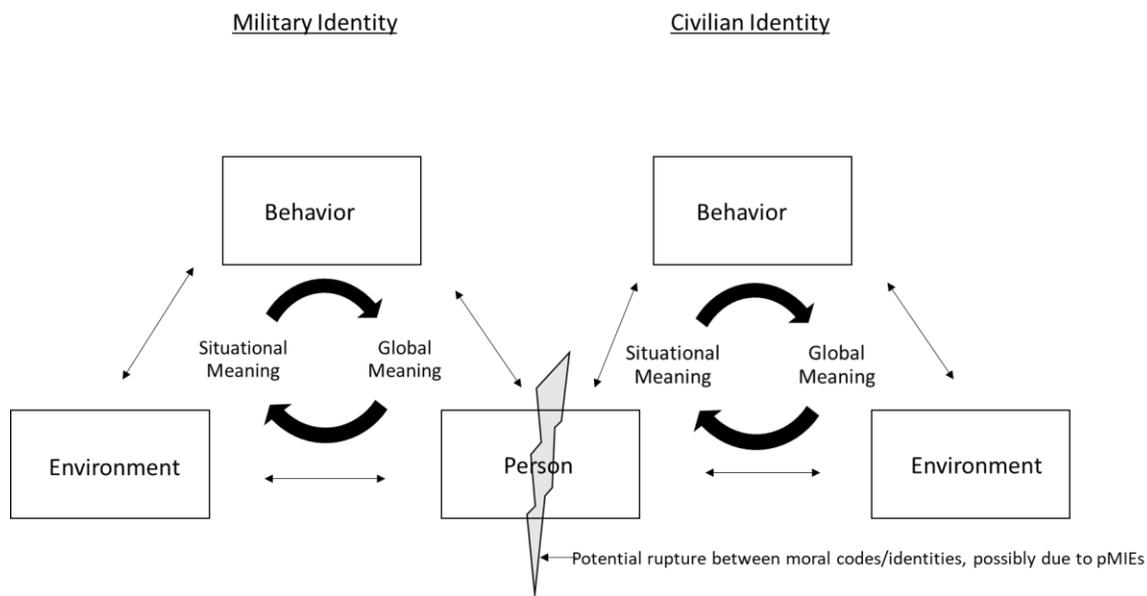
acknowledgment regarding the very different results that may arise whether this is done in a military or civilian setting or community.

While there is recognition of civilian norms in some of the literature, there is no more than subtle allusion to the possibility and implications of perceived bicultural identity. Conflicting moral codes, incompatible military and civilian values and experiences, frequent deployments and transitions reintegrating back into society, and a desire to be both a service member and engage in civilian life appear to be matters for further attention, particularly in regard to identity commitment and salience (Stryker & Burke, 2000).

Having established the need for research on this variable and having shown the compatibility of SCT-IT as constructivist theories that account for triadic reciprocity, agency, and sense-making that complement the MMM, a new conceptual model synthesizing these components is proposed. A pictorial representation of this integrated model is presented to further aid the conceptualization of this approach when working with bicultural identity (See Figure 3). The triadic reciprocity mechanisms (behavioral, environmental, personal) for each of the dual-identities (military and civilian) are thought to operate interdependently and at all times in a person's life, while the meaning-making process simultaneously occurs as a continual process within that triadic phenomenon of influence upon the individual. At moments where the internal process of meaning-making becomes disrupted (i.e. where dissonance occurs), that discrepancy will require a reparation response that may differ significantly dependent upon whether the two identities are functioning together (high integration) or whether there is an incompatibility between identities that can lead to a rupture between moral codes. Notably, this framework specifically accounts for the possibility that dissonance can be either within one of the distinct identities only or within the person themselves and between identities, and this current study will seek to provide an initial exploratory investigation of this model.

**Figure 3**

*Proposed Bicultural Identity Triadic Reciprocity Model of Meaning Making*



### **Research Questions and Hypotheses**

Based on a comprehensive review of the literature, the current study seeks to answer several research questions to contribute to the extant literature on MI. The first set of hypotheses seeks to answer the research question: What relationship exists between potentially morally injurious event (pMIE) exposure and mental health outcomes?

#### ***Hypothesis Set 1***

**H<sub>0</sub>1.1a:** Transgression-Self (T-S) will have no significant correlation with Guilt and Shame (single construct).

**H<sub>a</sub>1.1a:** Transgression-Self (T-S) will be significantly and positively correlated with Guilt and Shame (single construct).

**H<sub>0</sub>1.1b:** Perceived Moral Violation (PMV) will have no significant correlation with Guilt and Shame (single construct).

**H<sub>a</sub>1.1b:** Perceived Moral Violation (PMV) will be significantly and positively correlated with Guilt and Shame (single construct).

**H<sub>0</sub>1.2a:** Transgression-Other (T-O) will have no significant correlation with anger.

**H<sub>a</sub>1.2a:** Transgression-Other (T-O) will be significantly and positively correlated with anger.

**H<sub>0</sub>1.2b:** Moral Violation (PMV) will have no significant correlation with anger.

**H<sub>a</sub>1.2b:** Moral Violation (PMV) will be significantly and positively correlated with anger.

**H<sub>0</sub>1.3a:** Transgression-Other (T-O) will have no significant correlation with increased Depression.

**H<sub>a</sub>1.3a:** Transgression-Other (T-O) will be significantly and positively correlated with increased Depression.

**H<sub>0</sub>1.3b:** Moral Violation (PMV) will have no significant correlation with increased Depression.

**H<sub>a</sub>1.3b:** Moral Violation (PMV) will be significantly and positively correlated with increased Depression.

**H<sub>0</sub>1.4a:** Transgression-Other (T-O) will have no significant correlation with Suicidality.

**H<sub>a</sub>1.4a:** Transgression-Other (T-O) will be significantly and positively correlated with Suicidality.

**H<sub>0</sub>1.4b:** Moral Violation (PMV) will have no significant correlation with Suicidality.

**H<sub>a</sub>1.4b:** Moral Violation (PMV) will be significantly and positively correlated with Suicidality.

**H<sub>0</sub>1.5a:** Transgression-Other (T-O) will have no significant correlation with lack of trust.

**H<sub>a</sub>1.5ca:** Transgression-Other (T-O) will be significantly and positively correlated with lack of trust.

**H<sub>0</sub>1.5b:** Moral Violation (PMV) will have no significant correlation with lack of trust.

**H<sub>a</sub>1.5b:** Moral Violation (PMV) will be significantly and positively correlated with lack trust.

These relationships in research question one are also explored in regard to the variable of meaning-making (See Figures 4 and 5). Research question two addresses this variable and asks: How does meaning-making mediate or moderate the relationship between pMIE exposure and mental health outcomes?

### *Hypothesis Set 2*

**H<sub>0</sub>2.1:** The relationship between PMV and Guilt and Shame (single construct) will not be mediated by the variable meaning-making.

**H<sub>a</sub>2.1:** The relationship between PMV and Guilt and Shame (single construct) will be mediated by the variable meaning-making.

**H<sub>0</sub>2.2:** The relationship between PMV and Anger will not be mediated by the variable meaning-making.

**H<sub>a</sub>2.2:** The relationship between PMV and Anger will be mediated by the variable meaning-making.

**H<sub>0</sub>2.3:** The relationship between PMV and Increased Depression will not be mediated by the variable meaning-making.

**H<sub>a</sub>2.3:** The relationship between PMV and Increased Depression will be mediated by the variable meaning-making.

**H<sub>0</sub>2.4:** The relationship between PMV and lack of trust will not be mediated by the variable meaning-making.

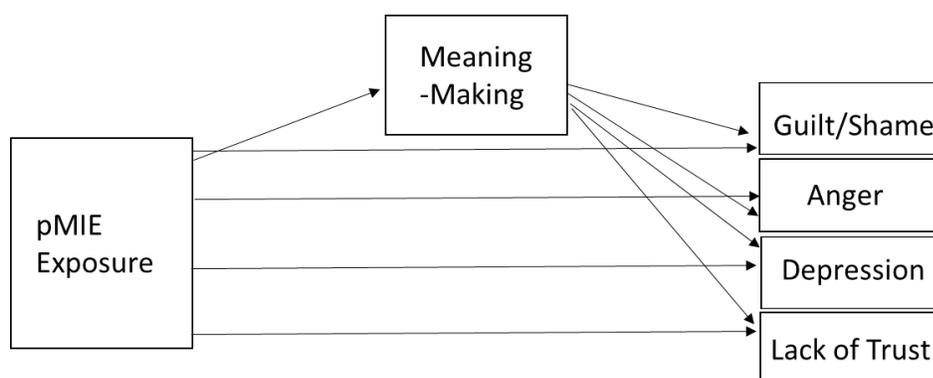
**H<sub>a</sub>2.4:** The relationship between PMV and lack of trust will be mediated by the variable meaning-making.

**H<sub>0</sub>2.5:** The relationship between PMV and Suicidality will not be moderated by the variable meaning-making.

**H<sub>a</sub>2.5:** The relationship between PMV and Suicidality will be moderated by the variable meaning-making.

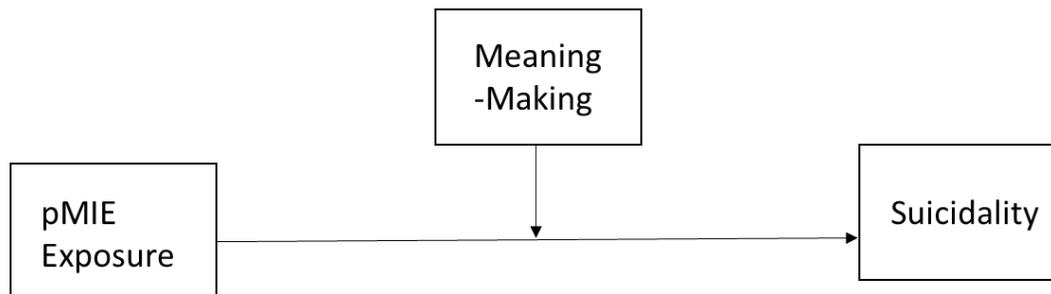
**Figure 4**

*Hypothesized Conceptual Mediation Model*



**Figure 5**

*Hypothesized Conceptual Moderation Model*



The final set of hypotheses addresses the question: What relationships exist between identity and motivation-based factors and overall mental health outcomes? Specifically, what impact does a service member's initial motivation to enlist have on mental health outcomes? How and to what degree do military member's perceptions of possessing a bicultural service

member/civilian identity impact mental health outcomes? Specifically, it is proposed that without a deeper value-alignment with military culture, through either high BII or highly internalized service member identity, that, in high pMIE exposure conditions, there may be increased dissonance and, therefore, worse mental health outcomes will exist. However, with no current data related to these constructs, these hypotheses are preliminary and it is acknowledged that these variables could show the reverse outcomes or not be correlated to mental health outcomes. Additionally, it is proposed that motivations for enlistment may impact outcomes following pMIEs, though the direction of this impact is unknown.

### Hypothesis Set 3

**H<sub>0</sub>3.1:** Identity Integration (BII) will not be significantly and negatively correlated with mental health symptomology.

**H<sub>a</sub>3.1:** Identity Integration (BII) will be significantly and negatively correlated with mental health symptomology.

**H<sub>0</sub>3.2:** The relationship between pMIE exposure and overall negative mental health symptoms will not be mediated by BII.

**H<sub>a</sub>3.2:** The relationship between pMIE exposure and overall negative mental health symptoms will be mediated by BII.

**H<sub>0</sub>3.3:** Intrinsic Motivations to enlist will not be statistically and negatively correlated with mental health symptomology.

**H<sub>a</sub>3.3:** Intrinsic Motivations to enlist will be statistically and negatively correlated with mental health symptomology.

**H<sub>0</sub>3.4:** Extrinsic motivations to enlist will not be statistically and positively correlated with mental health symptomology.

**H<sub>a</sub>3.4:** Extrinsic motivations to enlist will be statistically and positively correlated with mental health symptomology.

## Chapter Three: Methodology

This chapter presents information pertinent to the methodology that was used to explore the relationships between potentially morally injurious event (pMIE) exposure, motivations, bicultural identity, and various mental health outcomes in the current study. This chapter will review the purpose of the current research and provide an overview of the research questions and hypotheses. Following this introduction to the research, this chapter will turn its attention to providing an explanation of the process utilized to select participants and will give a thorough description of each of the measures utilized in this study. The research procedures used will be outlined, and an explanation of data analysis will follow. Finally, ethical considerations and risks and benefits of the study that were considered will be explored.

### Research Purpose

The purpose of this research is to strengthen the existing limited literature related to the nascent topic of MI and to explore new variables related to military-member perceptions, motivations, and bicultural identity to better understand what previously unstudied variables may impact various MI trajectories. The researcher hopes to inform counselors and others who work with military populations and morally wounded individuals so that improved treatments and interventions can be developed that will lead to more efficacious outcomes.

### Research Questions and Hypotheses

#### *Research Question One*

What relationship exists between potentially morally injurious event (pMIE) exposure (conceptualized separately as T-O/T-S or PMV) and mental health outcomes?

**H<sub>0</sub>1.1a:** Transgression-Self (T-S) will have no significant correlation with Guilt and Shame (single construct).

**H<sub>a</sub>1.1a:** Transgression-Self (T-S) will be significantly and positively correlated with Guilt and Shame (single construct).

**H<sub>0</sub>1.1b:** Perceived Moral Violation (PMV) will have no significant correlation with Guilt and Shame (single construct).

**H<sub>a</sub>1.1b:** Perceived Moral Violation (PMV) will be significantly and positively correlated with Guilt and Shame (single construct).

**H<sub>0</sub>1.2a:** Transgression-Other (T-O) will have no significant correlation with anger.

**H<sub>a</sub>1.2a:** Transgression-Other (T-O) will be significantly and positively correlated with anger.

**H<sub>0</sub>1.2b:** Moral Violation (PMV) will have no significant correlation with anger.

**H<sub>a</sub>1.2b:** Moral Violation (PMV) will be significantly and positively correlated with anger.

**H<sub>0</sub>1.3a:** Transgression-Other (T-O) will have no significant correlation with increased Depression.

**H<sub>a</sub>1.3a:** Transgression-Other (T-O) will be significantly and positively correlated with increased Depression.

**H<sub>0</sub>1.3b:** Moral Violation (PMV) will have no significant correlation with increased Depression.

**H<sub>a</sub>1.3b:** Moral Violation (PMV) will be significantly and positively correlated with increased Depression.

**H<sub>0</sub>1.4a:** Transgression-Other (T-O) will have no significant correlation with Suicidality.

**H<sub>a</sub>1.4a:** Transgression-Other (T-O) will be significantly and positively correlated with Suicidality.

**H<sub>0</sub>1.4b:** Moral Violation (PMV) will have no significant correlation with Suicidality.

**H<sub>a</sub>1.4b:** Moral Violation (PMV) will be significantly and positively correlated with Suicidality.

**H<sub>0</sub>1.5a:** Transgression-Other (T-O) will have no significant correlation with lack of trust.

**H<sub>a</sub>1.5ca:** Transgression-Other (T-O) will be significantly and positively correlated with lack of trust.

**H<sub>0</sub>1.5b:** Moral Violation (PMV) will have no significant correlation with lack of trust.

**H<sub>a</sub>1.5b:** Moral Violation (PMV) will be significantly and positively correlated with lack trust.

### ***Research Question Two***

How does meaning-making mediate or moderate the relationship between pMIE exposure and mental health outcomes?

**H<sub>0</sub>2.1:** The relationship between PMV and Guilt and Shame (single construct) will not be mediated by the variable meaning-making.

**H<sub>a</sub>2.1:** The relationship between PMV and Guilt and Shame (single construct) will be mediated by the variable meaning-making.

**H<sub>0</sub>2.2:** The relationship between PMV and Anger will not be mediated by the variable meaning-making.

**H<sub>a</sub>2.2:** The relationship between PMV and Anger will be mediated by the variable meaning-making.

**H<sub>0</sub>2.3:** The relationship between PMV and Increased Depression will not be mediated by the variable meaning-making.

**H<sub>a</sub>2.3:** The relationship between PMV and Increased Depression will be mediated by the variable meaning-making.

**H<sub>0</sub>2.4:** The relationship between PMV and lack of trust will not be mediated by the variable meaning-making.

**H<sub>a</sub>2.4:** The relationship between PMV and lack of trust will be mediated by the variable meaning-making.

**H<sub>0</sub>2.5:** The relationship between PMV and Suicidality will not be moderated by the variable meaning-making.

**H<sub>a</sub>2.5:** The relationship between PMV and Suicidality will be moderated by the variable meaning-making.

***Research Question Three:***

What relationships exist between identity and motivation-based factors and overall mental health outcomes?

**H<sub>0</sub>3.1:** Identity Integration (BII) will not be significantly and negatively correlated with mental health symptomology.

**H<sub>a</sub>3.1:** Identity Integration (BII) will be significantly and negatively correlated with mental health symptomology.

**H<sub>0</sub>3.2:** The relationship between pMIE exposure and overall negative mental health symptoms will not be mediated by BII.

**H<sub>a</sub>3.2:** The relationship between pMIE exposure and overall negative mental health symptoms will be mediated by BII.

**H<sub>0</sub>3.3:** Intrinsic Motivations to enlist will not be statistically and negatively correlated with mental health symptomology.

**H<sub>a</sub>3.3:** Intrinsic Motivations to enlist will be statistically and negatively correlated with mental health symptomology.

**H<sub>0</sub>3.4:** Extrinsic motivations to enlist will not be statistically and positively correlated with mental health symptomology.

**H<sub>a</sub>3.4:** Extrinsic motivations to enlist will be statistically and positively correlated with mental health symptomology.

### **Research Design**

This study utilized a correlational research design to examine the relationships between pMIE exposure and various mental health outcomes and also examined what role meaning-making, motivations to enlist, and bicultural identity have on these outcome variables. The sample was recruited primarily from social media through military-specific groups on both Reddit and Facebook. A limitation with this sampling method is the possibility of low recruitment numbers as well as the potential for high attrition rate/non-completers.

The Reddit platform has been suggested as a viable recruiting platform for researchers due to its ease of use, capability of targeting specific groups, or subreddits, within the platform, and a high number of users (Shatz, 2017). The current study obtained permission, following submission of proof of IRB approval, to post to the subreddit “r/veterans” group, which is a community of approximately 54,400 veteran members. An additional advantage to this recruitment method is that there is some indication that Reddit may provide a more diverse sample compared to alternative methods such as sampling among college students (Jamnik & Lane, 2017). In the current study, this provides an advantage considering that a college-only sample may consist of those who had higher intentions to pursue military service as a result of the GI Bill benefit provided. Facebook has also been used as a recruiting platform in myriad studies and has been shown to have possible benefits including low cost and rapid recruitment (Pederson & Kurz, 2016). A cited challenge in Facebook recruitment is the possible disconnect between targeted study population and exposure on the platform (Pederson & Kurz, 2016) and

this was minimized in the current study by recruiting only via military member and veteran-specific Facebook groups.

Prospective participants were provided with an informed consent that reviewed, in detail, the purpose, design, benefits, and potential drawbacks of participation. The informed consent contained information regarding privacy and confidentiality, risks, and also provided the study's IRB approval. Upon providing consent, an online survey was administered through Qualtrics through which demographic information was collected, which included military-specific items related to experiences and motivations, and participants were then administered eight measures which consisted of the DRRI-2 Section D and E, SEE (author-created), EMIS-M, BIIS-2, ISLES-SF, SBQ-R, PHQ-9, DAR-5. Data analysis was completed utilizing IBM SPSS Statistics 27.

### **Selection of Participants**

Following data collection, results were analyzed to ensure that all participant results included in the current analysis met inclusion criteria. Specifically, only those military members who are currently serving or who served after 9/11 were included.

### **Instrumentation**

#### ***Demographic Information***

Basic demographic information was collected from all participants that included age, gender, and education level. Military specific demographics were also included to ensure that participants had previously served or were currently serving in the military and to obtain information regarding rank, MOS, branch, and component of service and year entered into the military as well as the number of years served. Participants were also asked to indicate if they had been deployed and whether these deployments were voluntary or mandatory.

### ***Motivation to Enlist***

Motivation to enlist was measured via a question that was included among the demographic questions. Participants were presented with a question asking about their top motivations for enlisting and were asked to select among eleven options that have been shown to be the primary motivators for enlistment (e.g., Griffith, 2008; Helmus, 2018; Mankowski et al., 2015). Participants indicated how strongly each factor influenced their decision on a Likert scale from 0 (not at all influential) to 10 (extremely influential). Five of the 11 items subsequently loaded onto the Intrinsic Motivations variable and the remaining six items loaded onto the Extrinsic Motivations variable (See Appendix A).

### ***Deployment Risk and Resilience Inventory-2 (DRRI-2)***

The DRRI-2 assesses risk and resilience factors and contains 17 independent scales, any of which can be used separately or in a unique combination for research; the scale resulted from a three-phase development process that occurred over a period of multiple years (Vogt et al., 2013). In the current study, the DRRI-2 was used to assess for pMIE exposure through the Section D: Combat Experiences scale (17 items) and Section E: Aftermath of Battle scale (13 items), both of which objectively examine exposure without confounding one's judgment or emotional reaction to the events (Vogt et al., 2012). Scores on the Combat Experiences scale and Aftermath of Battle experiences scale range from 17-102 and 13-78, respectively, with higher scores indicating increased exposure and, therefore, potentially increased risk to subsequent symptomology (Vogt et al., 2012). The DRRI-2 has evidence of strong validity and internal consistency reliability with an alpha of .91 on the Combat Experiences scale and .92 on the Aftermath of Battle scale (Vogt et al., 2012), with evidence of strong reliability and validity having been replicated in other studies, including with a nonclinical sample (Maoz et al., 2016).

### ***Subjective Experience of Exposure (SEE)***

To assess whether the objective events endorsed on the DRRI-2 were, per veteran report, morally challenging, after each subscale (Combat Experiences and Post Battle) of the DRRI-2 were completed, participants were asked to respond to the following question for each subscale: “To what degree did you perceive these events to violate a part of your values or moral code?” This question is an item created by the researcher and is meant to capture the veteran’s perception of whether these events were in violation of their own moral code, which is a proposed alternative conceptualization for pMIEs that takes into account the unique moral code of the individual. This is significant due to the personal and varied nature of morality and the questions that remain about how to properly categorize pMIEs, including who determines whether an event was potentially morally injurious (Schorr et al., 2018; see also Stein et al., 2012; Litz & Kerig, 2019).

### ***Expressions of Moral Injury Scale-Military Version (EMIS-M)***

The Expressions of Moral Injury Scale-Military Version (EMIS-M) is a 17-item scale that was normed on two samples ( $N=286$  and  $N=624$ ) of veterans with combat exposure, and that examines symptoms specific to MI; it has been shown to have high reliability (Cronbach’s  $\alpha=.94$ ) and strong convergent and divergent validity (Currier et al., 2018). The measure examines symptoms based on whether they are self- or other-directed (Currier et al., 2018), which aligns well with the theoretical foundations of the current study which views influential learning as resulting from either direct experience or observation (Bandura, 1986). Use of this measure in the current study allows for measurement of MI-specific symptomology and is strengthened by additional research support for the EMIS-M (Koenig et al., 2019; Yeterian et al., 2019).

### ***Bicultural Identity Integration Scales-Version 2 (BIIS-2)***

The Bicultural Identity Integration scale-Version 2 (BIIS-2) is a 17-item measure assessing bicultural identity on two dimensions of distance (the degree to which two cultures are separated versus overlap) and harmony (the degree of congruence versus conflict between two cultures), with items rated on a 5-point Likert Scale (Huynh et al., 2018). The BIIS-2 is the third iteration of the scale (Benet-Martínez et al., 2002; 2005), and like other scales of bicultural measurement (Ward et al., 2018; Yampolsky et al., 2016), is relatively new, understudied, and has been created with a dearth of literature surrounding bicultural identity. Despite preliminary claims for its reliability and validity (Huynh et al., 2018), these values have not been reported and, as a relatively new measure, the BIIS-2 lacks solid support and testing. This is acknowledged as a limitation. Notwithstanding these limitations, this measure provides valuable initial information for the current exploratory variables in this study. Before the BIIS-2 was administered, participants were asked to rate, on a 5-point Likert scale, how strongly they identify with military culture as well as how strongly they identify with the civilian culture.

### ***Integration of Stressful Life Events Scale-Short Form (ISLES-SF)***

The Integration of Stressful Life Events Scale-Short Form (ISLES-SF) is a 6-item brief version of the original 16-item ISLES scale that measures situational meaning-making in response to an identified event (Holland et al., 2014; Holland et al., 2010). Items on the ISLES-SF are rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) with resulting scores (possible range from 6-30) loading onto two factors of Comprehensibility and Footing in the World, where higher scores indicate an increased level of meaning made about the event (Holland et al., 2014). There is adequate support for the psychometric properties of the ISLES ( $\alpha = .92-.94$ ,  $r = .57$ ,  $p < .001$ ) (Holland et al., 2010) and preliminary evidence for the

ISLES-SF as an appropriate and reliable brief version of the scale with high correlations with the full ISLES measure ( $r=.951$ ,  $p<.001$  in a 3-month interval) (Holland et al., 2014).

### ***Suicide Behavior Questionnaire-Revised (SBQ-R)***

The Suicide Behavior Questionnaire-Revised (SBQ-R) is a 4-item scale assessing for suicidal ideation (SI) and behavior across four domains of lifetime presence of SI, frequency of SI thoughts, threat, and the likelihood of acting on SI (Linehan & Nielsen, 1981; Osman et al., 2001). Scores range from 3-18, with differing point ranges possible for each of the four items. The measure has been found to have adequate internal consistency reliability ( $\alpha=.88$ ) and strong criterion-related validity (Osman et al., 2001).

### ***Patient Health Questionnaire (PHQ-9)***

The Patient Health Questionnaire (PHQ-9) is a 9-item measure of depressive symptom severity, with scores ranging from 0 to 27, which has been used often in research (Kroenke et al., 2001) and has been recommended in the MI literature as a brief measure for depression (Jinkerson, 2016). Participants rate their depressive symptoms over a period of the past two weeks pertaining to how often they have been bothered by the symptoms on a scale from 0 (not at all) to 3 (nearly every day). Owing to its brevity and its evidenced reliability ( $\alpha=.89$ ) and validity, it is an appropriate brief measure of depressive symptoms (Beard et al., 2016; Kroenke et al., 2009).

### ***Dimensions of Anger Reactions (DAR-5) Questionnaire***

The Dimension of Anger Reactions (DAR-5) questionnaire is a short, 5-item assessment of anger that has been shown to have strong validity and reliability (Cronbach's  $\alpha=.86$ ), thus lending credibility for its use in the current study (Forbes et al., 2014). Scores on the DAR-5 can range from 5-25, with scores of 12 or above being indicative of possible impairment and suggested for intervention. Though the DAR-5 captures other-directed anger (Forbes et al.,

2004), the endorsed items on the DAR-5 are limited to current affect and problematic anger exhibited within the last four weeks (Forbes et al., 2014).

### **Research Procedures**

A research proposal was submitted for approval to IRB. Participants were recruited via social media, provided with informed consent, and assured participation was voluntary. The informed consent explained the details and purpose of the study and explained limits to confidentiality, risks, benefits of participation, and explained procedures for the storage of data.

### **Data Processing and Analysis**

Data was analyzed utilizing IBM SPSS Statistics Version 27. Data was first screened for missing data, which was excluded from analysis, and to ensure that inclusion criteria had been met. Variables were created in SPSS from relevant scale items as described below. For each computed variable, reliability, possible range, and actual range were examined (See Table 1). Analysis was then conducted using bivariate correlations and regression analysis procedures.

Transgression-Other and Transgression-Self were defined and aligned with existing data to attempt to replicate outcomes from previous research, while avoiding the use of measures that confound events and symptomology (Currier et al., 2018; Koenig et al., 2019). It is for this reason that the DRRI-2 was selected as a measure as opposed to the more commonly utilized scale, Moral Injury Events Scale (MIES). T-S ( $\alpha = .802$ ) was defined/calculated from items #2, 8, 12, 13, and 16 from the DRRI-2 Combat Experiences Scale. This determination was made based upon previous research indicating significant positive correlations between the MIES Transgressions-Self scores and Combat Experiences Scale of the DRRI-2 (Bryan et al., 2016) and by selecting items that show an active action on the part of the participant (i.e. “I fired...,” “I was involved...,” “I participated...”). This construct resulted in a possible score of 5-30, with an actual range in the data set of 5-21, with higher scores being indicative of higher personal action

in combat or against others. Transgression-Other, likewise, has been shown to have significant positive associations with the DRRI-2 Combat and Post Battle Scales (Bryan et al., 2016) and was defined in the present study ( $\alpha = .876$ ) by the Combat Experiences scale items #3-7, 9-11 and Post Battle scale items #8-10. This resulted in possible scores for T-O ranging from 11-66 with higher scores indicative of a higher level of T-O exposure.

Perceived Moral Violation (PMV) was computed from the author-derived Subjective Experience of Exposure (SEE) item that was presented twice in the survey, once following the DRRI-2 Combat Experiences scale and once following the DRRI-2 Post Battle scale. The PMV construct, though novel in its exact usage, is grounded in existing theorizing and conceptualizations (see particularly, Koenig, 2018; see also, Currier et al., 2015; Nash et al., 2013; Park, 2010). Answers were given on a Likert scale ranging from 0 (not at all) to 10 (extremely) with possible scores of 0-22 and higher scores being indicative of a higher perceived violation of one's values/moral code. PMV ( $\alpha = .887$ ) is proposed as an alternative conceptualization for categorizing pMIEs.

Mental health outcomes were assessed via items from the EMIS-M, DAR-5, PHQ-9, and SBQ-R. Guilt was computed from the EMIS-M from items #1 and 7, with higher scores indicating increased guilt and shame symptomology. Anger was assessed via the DAR-5, depression via the PHQ-9, suicidality via the sum total possible score from all four questions on the SBQ-R, and trust was computed from items #3, 9, and 15 from the EMIS-M with higher scores being indicative of lower trust. A composite mental health outcomes score was all computed from the sum of these measures with higher scores indicative of worse mental health outcomes.

Meaning-making was computed via the sum score on the ISLES-SF with higher scores indicative of a higher level of integration of events. Use of the ISLES-SF to assess for meaning-making is consistent with previous MI research (e.g. Currier et al., 2015b).

The novel concept of Bicultural Service Member/Civilian Identity was conceptualized in the research questions as identity compatibility or identity integration and referred to as Bicultural Identity Integration (BII). BII was calculated utilizing the BIIS-2, which was adapted for use with non-racial/ethnic identities as an early research attempt at investigating a bicultural military/civilian identity integration. Items from the BIIS-2 utilized to calculate BII were items #1, 2, 3, 4, 5R (reverse coded), 7R, 8R, 9R, 10R, 12R, 13, 16R, and 17R. Items #6, 11, 14 and 15 were removed due to ambiguity or confusion in wording resulting from adapting the questions from racial/cultural reference to a military/civilian cultural reference. Higher scores are indicative of higher integration or compatibility between military and civilian roles.

Intrinsic Motivation was computed from items #1, 2, 3, 9, and 10 from the Enlistment Motivations/Motivation to Enlist scale, a non-published author-created scale based upon previous literature establishing the commonly accepted reasons that an individual pursues enlistment (Hansen, 2019; Lawrence & Legree, 1996; Mankowski et al., 2015; Taylor et al., 2015). Extrinsic Motivations were computed from items #4, 5, 6, 7, 8, and 11 from the same scale and also accounted for considerations from previous research (Korb & Duggan, 2007; Woodruff et al., 2006; see also, Griffith, 2008; Helmus, 2018; Mankowski et al., 2015).

**Table 1***Computed Variable Reliabilities and Ranges*

<b>Variable</b>	<b>Reliability (<math>\alpha</math>)</b>	<b>Possible Range</b>	<b>Actual Range</b>
Transgression-Self	.802	5-30	5-21
Transgression-Other	.876	11-66	11-43
Perceived Moral Violation	.887	0-22	2-22
Guilt	.803	2-10	2-10
Anger	.928	6-30	6-30
Depression	.939	0-27	0-27
Suicidality	.872	3-18	4-16
Trust	.882	3-15	3-15
Meaning-Making	.886	6-30	6-30
BII	.891	13-65	18-63
Intrinsic Motivations	.841	0-50	0-50
Extrinsic Motivations	.713	0-60	0-56

**Ethical Considerations**

The study was conducted in a manner consistent with the American Counseling Association's (ACA; 2014) Code of Ethics and standards for research. The informed consent document provided to prospective participants was consistent with the language outlined in the ACA Code of Ethics (G.2.a), no identifying information was collected from participants, and the research design and procedures were determined to present a low risk. Though the online survey and data collection methods were not anticipated to present a risk to participants, additional

safeguards were also put in place by including appropriate referrals to mental health resources upon completion of the survey. The resources provided included Give An Hour, the Suicide Hotline, and an explanation of benefits that may be available to veterans through the VA or through employer benefits packages, such as Employee Assistance Programs.

### **Summary**

This chapter discussed the methodology of the current study. The purpose, design, research questions, and data collection methods and procedures were reviewed in detail, including specific conceptualizations of all variables and their corresponding computations from the data set. Ethical considerations related to the methodology, informed consent procedures, and the ACA Code of Ethics (2014) were reviewed.

## Chapter Four: Results

The purpose of this study is to contribute to the existing research investigating Moral Injury and to strengthen this extant literature by addressing some of the many questions that currently surround the MI construct. Specifically, in addition to attempting to replicate current research results, this study offers an alternative conceptualization for identifying pMIEs and also introduces new variables related to identity and motivation. These new conceptualizations are proposed to enhance the MI literature by more overtly studying the existential, values-based, and philosophical factors that are, by definition, an inherent part of MI. This chapter will review the results of the three proposed research questions addressed in this study and their corresponding hypotheses.

Research question one examined the relationship between pMIE exposure and mental health outcomes. To address the first research question, bivariate correlation analysis was used. Research question two asserted that meaning-making would mediate the relationship between pMIE exposure and guilt, anger, depression, and trust and moderate the relationship with suicidality. Four simple mediation analyses utilizing SPSS PROCESS macro 4 were run to test the proposed mediation and one moderation analysis was run utilizing SPSS PROCESS macro 1 to test for moderation. Research question three introduced exploratory research variables related to identity and motivations to examine the proposed model of bicultural military/civilian identity and the hypotheses regarding identity integration. Bivariate correlational analysis was conducted to test correlations in research question three and a simple mediation analysis was also conducted to test the hypothesis that the effect of Perceived Moral Violation on overall mental health outcomes would be mediated by identity integration.

## Data Screening

Data collection occurred over a four-week period from September-October 2020, resulting in responses from 102 participants. Twelve participants were removed due to not meeting inclusion criteria. Five of these individuals answered “No” to the initial screening question “Have you served or are you currently serving in the United States military” and, therefore, were removed from the sample. Seven additional participants were removed due to incomplete answers at the second verification question in the survey in which participants answered questions about their years of service. The current research examines only those who have served post-9/11 and, therefore, participants who served the entirety of their military service prior to 2001 or ended service in 2001 were removed from the final sample in order to analyze only those who served in post-9/11 environments.

Finally, the remaining data was screened for missing or careless responding and 9 additional respondents were removed due to attrition in the survey and excessive missing answers defined as not completing one or more scales in their entirety. This resulted in a final sample of  $N=54$ . On average, the completion time for the survey, after accounting for three outliers, was 4946 seconds/82 minutes. The removed outliers finished the survey over the course of 1-2 days. The prolonged completion time, both with and without the three outliers included, is presumably because participants may multi-task and may not complete the survey straight through in a single sitting or as a single task. These response times can skew the results of the actual completion time. The duration of time to complete the survey was also analyzed via a middle quartile mean which indicated that the average time for completion ranged from 18.8 min-26.7 minutes.

## Participant Demographics

In the current sample of  $N=54$  participants, 57.4% ( $N = 31$ ) were male, 40.7% ( $N=22$ ) were female and 1.9% ( $N=1$ ) identified as “other”. Ages ranged from 27-68 years old with 50% of the sample being in their 30s. A majority of the sample, 70.4% ( $N=38$ ) were married or in a relationship with a committed life partner and a majority (59.3%,  $N=32$ ) had a college degree with the highest percentage of education being at the master’s level (29.6%) and second highest bachelor’s degree (25.9%). In the sample, 59.3% of participants were currently employed full-time, 13% part-time, and 27.8% were not currently employed or were retired. See Table 2 for participant demographics. Participants were asked to indicate the “primary” branch and component of the military in which they served, and this question allowed only one response. Therefore, it is possible that some participants may have served in additional branches or components throughout their military career, though this is unknown based upon the design of the question. In the current sample, 40.7% served primarily in the Air Force, 37% in the Army, 11.1% Marines, 9.3% Navy, and 1.9% Coast Guard. The Majority were active duty (64.8%  $N=35$ ) followed by National Guard (24.1%) and Reserves (11.1%). See Table 3 for participant military background and demographics.

**Table 2**

*Participant Demographics*

	<b><i>N or Range</i></b>	<b><i>% or M</i></b>
	Age	
Overall Age	27-68	41.39
Age (Male)	27-68	40.52
Age (Female)	31-64	43.14

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Gender		
Male	31	57.4
Female	22	40.7
Missing	1	1.9
Educational Background		
High School diploma/GED	3	5.6
College Freshman	1	1.9
College Sophomore	3	5.6
College Junior	5	9.3
College Senior	2	3.7
Trade/Technical/Vocational Training	8	14.8
Bachelor's Degree	14	25.9
Master's Degree	16	29.6
Professional Degree	1	1.9
Doctorate Degree	1	1.9
Current Relationship Status		
Single-Never in a serious relationship	3	5.6
Single-Not currently in a serious relationship	2	3.7
Non-Committed Dating Relationship	1	1.9
Monogamous Dating Relationship	4	7.4
Married/Life Partner	38	70.4
Divorced	5	9.3
Widowed	1	1.9

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Currently Employed		
Yes, Full-Time	32	59.3
Yes, Part-Time	7	13
<b>No (including retirement)</b>	<b>15</b>	<b>27.8</b>

**Table 3***Participant Military Background and Demographics*

	<i>N or Range</i>	<i>% or M</i>
Date Range Entered Military		
1970s	4	7.4
1980s	4	7.4
1990s	14	25.9
2000-2009	27	50
2010-2020	5	9.3
Branch of Military		
Air Force	22	40.7
Army	20	37
Navy	5	9.3
Marines	6	11.1
Coast Guard	1	1.9
Component of Service		
Active Duty	35	64.8
National Guard	13	24.1

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## Traumatic Exposures

Traumatic exposures, or pMIEs, were captured both through the DRRI-2 and through a perceived moral violations (PMV) variable computed via the subjective experiences of exposure questions described in the methodology section of this study. In regard to traumatic exposure assessed by the DRRI-2, all combat exposure and post battle experience questions were answered by either 49 or 50 participants out of 54 participants. Out of 54 participants, 40.7% ( $N=22$ ) never went on combat missions and 22.2% endorsed daily or almost daily combat missions, with a total of 51.8% having gone on at least one combat mission and 7.4% ( $N=4$ ) missing values. Of the sample, 35.3% took part in assaults on fortified enemy positions, 44.5% witnessed a unit member or ally being seriously wounded or killed, 42.7% endorsed that they encountered roadside bombs or other mines/booby traps during deployment, 63% experienced hostile incoming fire, 14.8% friendly fire, 39% were in a convoy attack, 42.7% witnessed an enemy be seriously injured or killed, 35.2% witnessed civilians that were injured or killed, 20.5% were personally injured in combat, 27.9% endorsed having personally fired their weapon at the enemy, 29.7% endorsed that they believe they wounded or killed another individual, 16.8% dealt with locating or disarming explosives, 24.1% involved in searching and clearing buildings or homes, 27.9% involved in locating or disarming enemy combatants, and 7.4% involved in hand-to-hand combat.

Post Battle experiences data shows that 63.1% of participants saw people begging for food with 22.4% reporting this occurred daily or almost daily, 51.9% endorsed encountering refugees who had lost their homes, and 55.6% observed communities or homes that had been destroyed. 31.5% reported taking care of injured or dying individuals, and 37% seeing civilians

seriously wounded or disfigured, 37.1 saw enemies wounded/disfigured, and 53.8% saw Americans and allies wounded and disfigured. 38.9% saw bodies of enemy combatants, 31.5% saw the bodies of dead Americans, and 31.5% saw the bodies of dead civilians. 33.5% interacted with detainees or prisoners of war, 44.6% encountered the sight, sound, and smell of dead and dying animals, and 27.8% were involved in the handling of human remains.

The items assessing subjective experiences of exposure in combat indicated that 40.7% of participants did “not at all” perceive events they experienced to violate their moral code (score of 0), 16.7% endorsed a slight violation (score of 1-4) , 5.6% endorsed a moderate violation (score of 5), 22.4% endorsed a significant level of felt violation (score of 6-10), and the remaining 14.8% were missing values. For post battle experiences, 42.6% endorsed that these experiences did “not at all” violate their values or moral code, 14.9% endorsed a slight violation, 13% rated a moderate violation, 18.6% endorsed a significant level of perceived violation, and 11.1% had missing values.

### **Data Analysis**

Data was analyzed utilizing IBM SPSS Statistics Version 27 with the PROCESS macro models 1 and 4 (Hayes, 2013).

### ***Testing Research Question One***

Research question one asked, “What relationship exists between pMIE exposure and mental health outcomes?” Given the current conceptual disagreements and measurement shortcomings that exist in the MI literature when categorizing pMIEs (e.g. Ellemers et al., 2019; Frankfurt & Frazier, 2016; Litz & Kerig, 2019, Stein et al., 2012), capturing pMIE exposure can present some difficulty. In the current research, all hypotheses in research question one were analyzed first with the commonly recognized T-O and T-S conceptualizations for pMIEs (Bryan et al., 2016; Wisco et al., 2017) and then again with the PMV conceptualization for pMIEs. T-O

and T-S were computed from DRRI-2 scores, as opposed to the commonly-used MIES scale, due to growing debate about the confounded nature of events and symptoms on the MIES (Currier et al., 2018; Koenig et al., 2019). As discussed earlier in this study, it is proposed that the moral nature of transgression requires more overt attention to be focused on the unique and personal nature of MI and a new variable, PMV, was thereby conceptualized for the current research. Both conceptualizations of pMIE construct were tested as part of research question one.

Bivariate correlations were run for T-S and Guilt/Shame and for T-O and the individual mental health outcomes of anger, depression, suicidality, and lack of trust (See Table 4). Correlation analysis suggested that neither T-O nor T-S have statistically significant correlations with any of the tested mental health outcomes. Namely, T-S was not significantly related to guilt/shame ( $p = .291$ ,  $r = .081$ ) and T-O was not significantly correlated with anger ( $p = .172$ ,  $r = .144$ ), depression ( $p = .146$ ,  $r = .155$ ), suicidality ( $p = .402$ ,  $r = .037$ ), or lack of trust ( $p = .088$ ,  $r = .198$ ). In addition to being analyzed individually, mental health outcomes were also analyzed as a composite score. This correlation also failed to show significant correlation with either T-S ( $p = .244$ ,  $r = .105$ ) or T-O ( $p = .123$ ,  $r = .176$ ). In all cases for research question one, in which pMIE exposure was conceptualized via events-only T-O and T-S constructs derived from the DRRI-2, the result was a failure to reject the null hypothesis. A possible explanation for the failure to reject the null hypothesis in all instances of research question one using the DRRI-2 derived T-O and T-S constructs, is due to the items selected for those constructs.

Since T-O and T-S variables were conceptualized with specific items from the DRRI-2 scales that are not well-established in the literature, and to account for possible errors in conceptualization of items, composite scores were calculated for the DRRI-2 Combat Experiences scale, Post Battle scale, and combine Combat and Post Battle scales. Analyses was run with each of these new variables representing pMIE exposure with the same results of non-

significance for Combat Experiences. Conversely, all mental health outcomes variables were significantly correlated with the Post Battle Scale with guilt being significant at  $p < 0.05$  and all other tested mental health outcomes variables being significant at  $p < 0.01$ . Additionally, depression ( $p = .036$ ,  $r = .265$ ), lack of trust ( $p = .044$ ,  $r = .244$ ), and the composite mental health symptoms score ( $p = .024$ ,  $r = .299$ ) were positively and significantly correlated with the total combined Combat and Post Battle scale score at  $p < 0.05$ .

**Table 4**

*Correlations of Variables from Research Question One*

	Guilt/Shame	Anger	Depression	Suicidality	Lack of Trust	MH
T-S	.081	--	--	--	--	.105
T-O	--	.144	.155	.037	.198	.176
DRRI-2 Combat	.170	.063	.070	.054	.147	.135
DRRI-2 Post Battle	.261*	.427**	.465**	.393**	.352**	.464**
DRRI-2 Total	.229	.235	.265*	.208	.252*	.299*
PMV	.781**	.379**	.475**	.498**	.528**	.591**

\*Correlation significant at the 0.05 level (1 tailed)

\*\*Correlation significant at the 0.01 level (1 tailed)

Research question one was then analyzed again with the Perceived Moral Violation (PMV) variable to represent pMIE exposure. The results of these analyses indicated statistically significant correlation between PMV and all mental health outcome variables. Specifically, PMV had a large effect with guilt/shame ( $p < .001$ ,  $r = .781$ ,  $r^2 = .610$ ), lack of trust ( $p < .001$ ,  $r = .528$ ,  $r^2 = .279$ ) and overall mental health symptoms ( $p < .001$ ,  $r = .591$ ,  $r^2 = .349$ ), accounting for 61%, 27.9%, and 34.9% of the variance in these variables, respectively. Analyses also indicated that

PMV had a medium effect with anger ( $p = .006$ ,  $r = .379$ ), depression ( $p < .001$ ,  $r = .475$ ,  $r^2 = .226$ ), and suicidality ( $p < .001$ ,  $r = .498$ ,  $r^2 = .248$ ). Data, therefore, suggests that there are strong correlations between PMV and guilt/shame, lack of trust, and overall mental health symptoms, and moderate correlations between PMV and anger, depression, and suicidality. Utilizing PMV as the variable representing pMIE exposure, the null hypothesis was rejected in all instances.

### ***Testing Research Question Two***

Research question two asked, “How does meaning-making mediate or moderate the relationship between pMIE exposure and mental health outcomes?” and was analyzed utilizing only PMV to conceptualize pMIE exposure due to the results of research one analysis indicating that T-O and T-S were shown not to be statistically significant in the current study. Four simple mediation analyses were conducted utilizing the PROCESS Macro model 4 (Hayes, 2013) for four outcomes variables. A moderation analysis was conducted on a fifth outcome variable utilizing PROCESS Macro model 1 (Hayes, 2013). It is noted that not all assumptions of linear regression models were met with the current variables and this, therefore, could impact interpretation of data.

It was hypothesized that there would be a positive indirect effect of pMIE exposure on guilt through meaning-making, which was supported in the simple mediation analysis as indicated by the total effect of X on Y, which was statistically significant  $t(45) = .3250$ ,  $p < .001$  with a 95% CI from .2440 to .4061. A statistically significant indirect effect of .0480 for X on Y at the 95% confidence interval suggests that for every unit increase of PMV, there is estimated to be a .0480 unit difference in guilt as a result of meaning-making. The direct effect (.278) of X on Y was also statistically significant  $t(45) = 5.9912$ ,  $p < .001$ , 95% CI from .1058 to .6621.

Contrary to hypothesized predictions, meaning-making as a mediator variable was not statistically significant when testing a simple mediation with PMV as a predictor and anger as an

outcome variable. Analysis found an indirect effect of X on Y of .2237 with a 95% confidence interval from -.0240 to .4512. Likewise, depression as an outcome variable was also not found to be significant with an indirect effect of .1866 with a 95% confidence interval from -.1350 to .4414.

A final simple mediation analysis was run with lack of trust as an outcome variable. As with guilt, a statistically significant indirect effect was found. The indirect effect of PMV on lack of trust through the proposed mediator of meaning-making was found to be .1369 with a 95% confidence interval from .0382 to .2459.

**Table 5**

*Indirect and Direct Effects of Mediation Model from Research Question One*

	Indirect Effect	BootSE	BootLLCI	BootUCLI	Direct Effect	LLCI	UCLI
Guilt/Shame	.0480	.0275	.0004	.1080	.2770	.1837	.3704
Anger	.2237	.1183	-.0218	.4516	.1439	-.1812	.4690
Depression	.1866	.1374	-.1192	.4373	.4210	.0034	.8386
Lack of trust	.1369*	.0538	.0362	.2487	.1901	.0057	.3744

To test the final hypothesis of research question two, a moderation analysis was conducted utilizing PROCESS macro model 1. The mean centered effect of PMV on suicidality with the proposed moderator of meaning-making was significant as indicated by the  $b_3$  regression coefficient of .0441 ( $p = .0087$ ) for the interaction of X and M on Y, with significant conditional effects at medium and high, but not low, levels of meaning-making.

### ***Testing Research Question Three***

Research question three sought to answer the question, “What identity and motivation-based factors influence mental health outcomes following pMIE exposure?” This research question introduces novel variables to the MI literature and was, therefore, exploratory in nature. It was hypothesized that there would be significant correlations between identity compatibility (BII) and mental health outcomes. To test this hypothesis, bivariate correlation analysis was run for Identity Integration (BII) and the individual mental health symptoms of guilt/shame, anger, depression, suicidality, and lack of trust as well as overall mental health symptoms. All mental health symptoms were found to be statistically significant and negatively correlated with BII as predicted. Specifically, guilt/shame ( $p = .010$ ,  $r = -.318$ ) was significant at the 0.05 level (1-tailed) and anger ( $p = .002$ ,  $r = -.401$ ), depression ( $p < .001$ ,  $r = -.449$ ), suicidality ( $p = .003$ ,  $r = -.370$ ), lack of trust ( $p = .001$ ,  $r = -.432$ ), and overall mental health symptoms ( $p < .001$ ,  $r = -.500$ ) were significantly correlated at the 0.01 level (1-tailed). See Table 5.

**Table 6**

*Correlations with BII for Study Variables in Research Question Three*

	Guilt/Shame	Anger	Depression	Suicidality	Lack of Trust	Overall Mental Health Symptomology
Pearson Correlation	-.318*	-.401**	-.449**	-.370**	-.432**	-.500**
$p$	.010	.002	.000	.003	.001	.000
$N$	53	53	50	53	53	53

\*Correlation is significant at the 0.05 level (1-tailed)

\*\*Correlation is significant at the 0.01 level (1-tailed)

It was also hypothesized that the relationship between pMIE exposure and overall negative mental health symptoms will be mediated by BII. A simple mediation analysis utilizing PROCESS macro model 4 was utilized and a statistically significant indirect effect was found. The indirect effect of PMV on overall mental health symptoms through the proposed mediator of identity integration was found to be .4167 with a 95% confidence interval from .0329 to 1.0295. The total effect of X on Y had an effect of 2.1260,  $t(42) = 4.6581$ , and  $p < .0001$ . The direct effect of X on Y had an effect of 1.7094,  $t(42) = 3.9009$ , and  $p = .0004$ .

Finally, for the variable of motivations to enlist, bivariate correlation analysis was conducted to analyze what relationships exist between intrinsic enlistment motivations with various mental health outcomes and extrinsic enlistment motivations with various mental health outcomes (See Table 6). Results of the analysis suggest that intrinsic enlistment motivations are not significantly correlated with mental health outcomes, with the exception of suicidality ( $p = .046$ ,  $r = -.240$ ). Extrinsic motivations were significantly correlated with guilt ( $p = .001$ ,  $r = .438$ ) and lack of trust ( $p = .012$ ,  $r = .317$ ). Anger, depression, and overall mental health symptoms did not significantly correlate with either intrinsic or extrinsic motivations.

**Table 7**

*Correlations for Motivations to Enlist*

	Intrinsic Motivations	Extrinsic Motivations
<b>Guilt</b>		
<i>r</i>	-.048	.438**
<i>N</i>	50	51
<b>Anger</b>		
<i>r</i>	-.140	.104

<i>N</i>	47	48
Depression		
<i>r</i>	-.149	.066
<i>N</i>	50	51
Suicidality		
<i>r</i>	-.240*	-.041
<i>N</i>	50	51
Lack of Trust		
<i>r</i>	-.100	.317*
<i>N</i>	50	51
Overall MH symptoms		
<i>r</i>	-.159	.150
<i>N</i>	47	48

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\*Correlation is significant at the 0.05 level (1-tailed)

\*\*Correlation is significant at the 0.01 level (1-tailed)

### Summary

This chapter reviewed the results of the current study, which attempted to replicate findings in the extant MI literature, and which also offered an alternative conceptualization for identifying pMIEs and introduced new variables, namely, bicultural identity integration (BII) and motivations to enlist. This chapter reviewed the results of the three research questions, and their corresponding hypotheses, addressed in this study.

## **Chapter Five: Summary, Conclusions, and Recommendations**

The purpose of this quantitative study was to contribute to the nascent and relatively scant literature examining moral injury in military member and veteran populations. Current conceptualizations of trauma do not adequately address the potentiality of distinct trajectories, various possible subtypes, or differential diagnosis regarding fear-based versus values-based offenses (Griffin et al., 2019; Koenig et al. 2018; Nilsson et al., 2015; Shay, 2014). While there is increasing attention to this gap in the literature, on moral injury, specifically, there remain many unknowns about this syndrome. The current research was grounded in the extant knowledge base on this topic and expanded upon this existing foundation through exploratory investigation into new variables proposed to be relevant to MI. These variables, and the overall study, were grounded in a theoretical framework of SCT-IT that also took into account major concepts from the moral psychology literature. Utilizing these SCT-IT foundations, this study aimed to identify how perceptions, motivations, and identity may impact mental health outcomes associated with MI. This chapter provides an overview of this early attempt to incorporate these exploratory variables and provides a discussion pertaining to initial outcomes as well as directions for future research.

Specifically, in research question one, this study examined the relationships between pMIE exposure and mental health outcomes. In research question two, the role of meaning-making as a potential mediator or moderator was examined. Lastly, in research question three, new variables that were hypothesized to be relevant to MI were introduced. This chapter discusses the results of the analyses that were conducted for each of these research questions, the results of which were presented in chapter four. Following the discussion of these results and

their implications for clinical practice, limitations of the study and suggestions for future research will be presented.

### **Summary of Findings and Implications**

Participants for this study were recruited from various social media groups via Facebook and Reddit. The sample consisted of 54 participants, all of whom were post-9/11 military members and veterans.

#### ***Research Question One***

Research question one asked, “What relationship exists between potentially morally injurious event (pMIE) exposure and mental health outcomes?”, with pMIE exposure conceptualized separately as either Transgression-Other (T-O) or Transgression-Self (T-S) and also as Perceived Moral Violation (PMV). It was hypothesized that T-S would be significantly and positively correlated with guilt and shame as a single construct, that T-O would be significantly and positively correlated with anger, depression, suicidality, and lack of trust, and that PMV, as an alternative conceptualization for pMIEs, would be significantly and positively correlated to all of the above mental health symptoms.

Inconsistent with previous research (Bryan et al., 2016; Burkman et al., 2019; Currier et al., 2018; Held et al., 2019; Jordan et al., 2017; Litz et al., 2009; Maguen et al., 2017) and contrary to hypotheses, none of the T-S or T-O correlations were supported with the selected items from the DRRI-2. There are a number of possible reasons for the lack of significance in the T-S and T-O variables. As noted elsewhere in this research, there were possible conceptualization errors when selecting items from the DRRI-2 for T-S and T-O. While the DRRI-2 has been used in previous MI research, for instance, to assess for exposure (Bryan et al., 2016), to measure social disconnectedness and alienation (Bryan et al., 2018), to capture “non-transgressive combat exposure” (Frankfurt et al., 2017), as a measure of “index events” for

trauma (Stein et al., 2012), and as an adapted measure for pMIE exposure (Currier et al., 2018), it has not been utilized with the T-S and T-O categorization specifically and, overall, a clear parameter for its use has not been established. This measure, however, was still chosen for the purposes of this current study owing to its benefits of providing events-only information about pMIE exposure, thus accounting for potential problems related to the existence of confounded variables in more commonly used measures (i.e. Koenig et al., 2018).

It is also possible that the current conceptualizations were adequate and that predictions were not supported due to the small sample size and low power in the current study.

Additionally, results may be due to the actual experiences of the sample. Specifically, and consistent with previous research indicating that T-S tends to be endorsed at lower rates than T-O events (Currier et al., 2018; Schorr et al., 2018; Wisco et al., 2017), the current study showed that 48.1% ( $N=26$ ) endorsed no T-S events in which they actively took part (i.e. “I fired...”, “I was involved...”, “I participated...”) and the highest score on this scale in the current sample was 21 out of a possible score of 30. Conversely, only 14.8% ( $N=8$ ) endorsed no exposure to T-O. While there were higher levels of T-O as compared to T-S events in the sample, it may be that total exposures in the sample for T-O were also not enough to be detected in the initial analyses and, therefore, were not supported as being correlated to mental health outcomes as expected. However, it may be more likely that conceptualization errors occurred or there were limitations in specifying T-S and T-O, as opposed to overall event exposure resulted in these findings.

This is likely considering that when DRRI-2 items were re-analyzed with complete subscale scores, Post Battle subscale scores were significant for all individual symptoms tested and for overall mental health outcomes. Furthermore, while there were no significant correlations with the Combat subscale, both depression and lack of trust were shown to be significantly correlated with the combined Combat and Post Battle subscale scores. Specifically, depression

and overall mental health symptomatology were the most strongly correlated factors with both the Post Battle and combined Post Battle/Combat scales in this new analysis.

These results appear to be consistent with previous research that suggests that overall mental health difficulties are posited to be an indicator of MI (Bryan et al., 2016; Burkman et al., 2019; Currier et al., 2018; Held et al., 2019; Jordan et al., 2017; Litz et al., 2009; Maguen et al., 2017). While depression has been found to be a symptom present in previous research and is thought to be associated with MI (Jinkerson, 2016; Maguen et al., 2010; Nazarov et al., 2018; Stein et al., 2012), it should also be noted that depression has been proposed as well to be a primary symptom where MI and PTSD overlap (Bryan et al., 2018). Therefore, the higher significance of depression here could suggest that these symptoms in the current sample are reflective of MI, or possibly an overlap of MI and PTSD. Symptoms thought to be PTSD-specific symptoms, such as startle reflex and flashbacks (Bryan et al., 2018), were not assessed for in the current research, thus not allowing for further distinction to be made.

Interestingly, when PMV was utilized as an alternative conceptualization for pMIE exposure to allow for participant-specific perceptions of a violation to be captured, it was found that PMV was significantly and positively correlated with negative mental health outcomes, both individually and as an overall construct, with moderate to large effects. These results aligned with expected outcomes and previous research. The larger effect sizes and significance of the correlations between pMIE and mental health outcomes, when conceptualized as PMV as opposed to as objective events captured in the DRRI-2, lends considerable support for the proposed position that it is the interrelatedness of events and one's moral codes rather than the events themselves that may lead to MI.

For instance, the events-only analysis in the current sample indicated a lower degree of negative mental health outcomes than the perceptions-based analysis in the same sample.

Military members may not perceive certain combat actions to be a transgression in the context of their own personal values and moral code. This aligns with the position advocated for by Rai and Fiske (2011) in the moral psychology literature which posits that events can be perceived as moral or immoral dependent upon the specific framework within which they operate, which is contrary to a more objective view of morality (Ingram, 2015). These are important, and relatively novel considerations, in the MI literature that have powerful implications for how pMIE categorization is best conceptualized. For example, the current findings add support for rejecting highly standardized conceptualizations (i.e. Frankfurt & Frazier, 2016) that do not account for the personalized distinctions between events themselves (DRRI-2) and perceptions (PMV).

The importance of assessing veteran perceptions has been recently introduced in the MI literature through previous categorization attempts, namely, in regard to where an impacted veteran placed responsibility for an experienced transgressive event (i.e. on self or others; Schorr et al., 2018) and through specific items in popular MI measures (Currier et al., 2015a; Nash et al., 2013), though these items confound perceptions with events (Koenig et al., 2019). While such previous attempts at measuring veteran perceptions assessed how veterans perceived responsibility and moral violation, these attempts would benefit from further distinction between objective events and felt transgressions of moral codes, which is argued here to be relevant and to potentially better account for the unique and personal nature of MI.

Importantly, the emphasis on veteran's perception of the events that are causing dissonance also has been shown to have relevance in treatment because events are often accurately perceived and certain treatment approaches that attempt to correct distorted thoughts may not be effective (Farnsworth, 2019). Since events themselves may not be universally traumatic, but may be traumatic when they are disagreeable from a moral or ethical standpoint, this has potential clinical implications that will be discussed further later in this chapter.

Furthermore, assessing the perceptions of the impacted veteran in this way may also protect against unintentional dismissal of other morally-based emotions and responses, such as disgust, that have been disregarded in previous studies of MI, due to interpretations made by the researchers that reported events were not moral ones, despite this potentially being moral in nature to the study participant themselves (Schorr et al., 2018).

### ***Research Question Two***

Research question two examined how meaning-making functions as a mediator or moderator variable in the relationship between pMIE exposure and mental health outcomes. Hypotheses were analyzed utilizing PROCESS Macro model 1 and model 4 (Hayes, 2013). The mediated relationship, from PMV through meaning-making, was found to be statistically significant for guilt/shame and for lack of trust, but not for anger or depression. The moderated relationship with suicidality as an outcome was also significant.

The significant indirect effects for guilt/shame and lack of trust were as expected based on support from fairly consistent previous findings for pMIE associations with guilt and shame (i.e., Currier et al., 2018; Held et al., 2019; Jordan et al., 2017), with few notable exceptions (Bryan et al., 2016). Lack of trust as a significant outcome is also supported in previous research (Bryan et al., 2016; Currier et al., 2018) and is additionally buoyed through the SCT-IT framework of the current study. Specifically, lack of trust is thought to relate to proxy and collective agency aspects of SCT-IT. Similar to the self-reflective processes of SCT-IT, there are environmental influences and factors related to observation, interdependence, and the need to achieve outcomes with “other participating agents” (Bandura, 2001) which, when PMV is present, are posited to correlate to lack of trust. In the current sample, transgressions of others were reported to a higher degree than actions taken by self and this has significance for the other-oriented symptomology present with lack of trust. It is suggested that, particularly in the military,

where interdependence is a necessity and often a matter of life or death, that PMVs require a high degree of sense-making and reconciliation and that without this response process (i.e. meaning-making), negative outcomes will increase. Importantly, more research is needed to understand these interdependent relationships and, to date, investigations into intragroup mechanisms that could aid this endeavor have been largely ignored in the moral psychology literature (Ellemers et al., 2019) and have not been a focus in the MI literature despite these intragroup dynamics having a high potential for relevance in MI.

Surprisingly, anger, which has been shown to be a likely symptom in MI (e.g., Currier et al., 2018; Jordan et al., 2017) and one that is more commonly associated with T-O events (Frankfurt & Frazier, 2016), did not show a statistically significant indirect path through meaning-making. It is possible that this is due to a true lack of a relationship in which PMV is a predictor and meaning-making is a mediator. It is also possible that anger was not accurately captured to detect this relationship. Specifically, the anger scale used in the current study, the DAR-5, asks participants to rate their anger only over a period of the past four weeks and, therefore, more remote anger, especially anger related to more distant events or PMVs, may not have been detected. If this is the case, it is a possible explanation as to why anger was not significant, but lack of trust was supported as a mediated relationship. In the moral psychology literature, anger is thought to be an other-condemning emotion (Haidt, 2003) and is proposed to be a driving force for responding to the environment in ways that may result in withdrawal from and lack of trust in others (Houtsma et al., 2017). Lack of trust may be a secondary symptom to an initial experience of anger that is not as easily captured months or years after an event.

The other unexpected finding was that meaning-making did not significantly mediate the relationship between PMVs and depression could have a couple of explanations. This finding is inconsistent with what was hypothesized based upon previous research (Currier et al., 2015b)

and, yet, could be the result of an actual lack of a mediated relationship, especially since this relationship has not yet been extensively investigated. Alternatively, this finding may possibly be due to the possible overlap of MI and PTSD noted earlier and the inability in the current study to distinguish between PTSD and MI. If an overlap of PTSD and MI exists in the current sample, this could potentially impact how meaning-making functions as a variable in response to more fear-based events as compared to values-based trauma responses that are the focus of this current research.

Finally, for research question two, results indicated that there was a mean centered moderation indicating that meaning-making may have significant influence on the effect of PMV on suicidality. This is consistent with previous preliminary indications that meaning-making may moderate outcomes with suicidality (Corona et al., 2019). A possible explanation for that moderated relationship could be that increased levels of confusion, hopelessness, or despair that manifest as suicidality may result from lower levels of meaning-making, which, according to SCT-IT, could function as interference with the conscious, values-aligned, purposive functioning of the individual as an agentic human being.

In Chapter two, dissonance was discussed in relation to its role in the meaning-making process; specifically, it was noted that when dissonance occurs, a reconciliation process must be engaged in by the individual to avoid negative mental health outcomes (Burkman et al., 2019; Hansen, 2019; Klein & O'Brien, 2016; Litz et al., 2009; Schorr et al., 2018; Stryker & Burke, 2000). Dissonance is inherent in pMIEs when conceptualized as PMV. According to SCT-IT, which is a constructivist approach, meaning is something thought to be created by an individual as a result of the interplay of personal, behavioral, and environmental factors (Bandura, 1986; Bandura, 2001). When new environmental information presents a discrepant meaning from the worldview an individual currently holds, new meaning and understanding must be acquired as

part self-verification and as part of the continual reflexive process that all human beings engage in (Bandura, 1986; Bandura, 2001; Stets & Burke, 2000; Stryker & Burke, 2000). When events and held views are mismatched, modification is needed. The moderated relationship to suicide in the current study is supported by the theories of meaning-making and the SCT-IT framework when resolutions or modifications to understanding cannot be found by an individual.

### ***Research Question Three***

Research question three sought to expand the existing literature by introducing exploratory variables that are proposed to be relevant in MI. Specifically, research question three aimed to examine the relationships that exist between identity and motivation-based factors and overall mental health outcomes following pMIE exposures.

As predicted, strong correlations were found between bicultural identity integration (BII) and anger, depression, and lack of trust and moderate correlations were found between BII and overall mental health outcomes. A simple mediation analysis was also conducted to examine the effect of PMV on overall mental health outcomes as mediated through BII. Hypotheses predicting a mediated relationship were supported and the relationship was found to be statistically significant with an indirect effect of .4167, a main effect of 1.7094 and a total effect of 2.2160.

It is suggested here that identity integration of military and civilian cultures may be a key aspect of MI in military and veteran populations. Specifically, individuals that serve in the military are thought to be susceptible to experiencing an incompatibility or tension between their military and civilian roles as these cultures have highly different norms and expectations. For those that experience a high level of bicultural identity integration (BII), there is thought to be less dissonance, which, therefore, leads to improved mental health outcomes following pMIE exposure. On the other hand, if an individual perceives their bicultural identities as being in

conflict, difficulty with living in values-aligned ways can result, thus causing an increase in negative mental health outcomes.

In the MI literature, there is agreement that pMIEs violate one's concepts of what is "right" (Shay, 2014) and that they "transgress deeply held moral beliefs and expectations" (Litz et al., 2009, p. 695), and, yet, there is, to the author's knowledge, little to no mention about how moral codes are not universal, are socially constructed, and can change from one context to another (Ellemers et al., 2019). As posited in SCT-IT, identity adoption allows for an individual to enact behaviors that could be viewed by others, or even by themselves in a different identity context, in negative ways (Bandura, 1986; Zimbardo, 1969). Yet, on the other hand, moral justification can result from identity salience and commitment and due to one's self-control and self-reflexive processes, being activated to see behaviors as being aligned with a particular identity.

These dueling moral codes have been briefly alluded to in previous MI literature in the context of citing that an individual may have experiences that are congruent with one, but not another, of their codes of morality (Schorr et al., 2018). Yet, when and how these different systems of reality exist for military members and their impact on MI has not been examined. It may be that there are various trajectories and mental health outcomes for military members resulting from congruence or incongruence between one's perceived military identity and expectations of war that allow for such actions engaged in to be acceptable to the veteran on a moral level (Rai & Fiske, 2011; Stryker & Burke, 2000). In the current research, and viewed through the SCT-IT framework, this is conceptualized as the level of bicultural identity integration (BII), which is preliminarily supported in research question three as being significant. It is, therefore, suggested that this is an area for further investigation.

Finally, motivations to enlist was preliminarily examined as a new variable in the MI literature. Results of the analysis suggest that intrinsic enlistment motivations are not significantly correlated with mental health outcomes, with the exception of suicidality, which was negatively correlated with intrinsic motivations. This could suggest that intrinsic motivations may be a protective factor in regard to suicidality. Conversely, extrinsic motivations were significantly and positively correlated with guilt and lack of trust, which may indicate increased susceptibility to these symptoms for those who enter the military for reasons related to economic gain or self-interest. The remaining symptoms examined, namely anger, depression, and overall mental health symptoms, were not found to significantly correlate with either intrinsic or extrinsic motivations.

Motivations to enlist were proposed as a potentially relevant variable for study in MI within the context of the relatively new all volunteer force (Clever & Segal, 2012; MacLean, 2018) and within the context of the SCT-IT framework. Specifically, proposed relevance of this variable stems from the theoretical assertions that human beings seek to live in values-aligned ways and that they must adjust their values, goals, and motivations when environmental or other events occur that activate a discrepancy or dissonance (Bandura, 2001); such discrepant experiences can occur regularly due to future expectancies that one imagines not necessarily being controllable and, thereby, resulting in outcomes that were not intended (Bandura, 2001).

The potential mismatch between values and actions is also highly interrelated to one's identity and concepts of self-efficacy (Bandura, 1986; Stryker & Burke, 2000). It is proposed here that, given the continual self-reflexive and adaptive process that human beings engage in, that dependent upon the time lag between enlistment and other factors, the effect of motivations to enlist could be minimized over time as a result of this process of striving for equilibrium and congruency, and this could account for some of the lack of significant findings. This possibility

does not negate the importance of examining how military members' initial goals and motivations for enlistment, and how their imagined futures aligned with experienced reality, may impact the trajectory of mental health outcomes following pMIE exposure. The preliminary analysis conducted here is a first attempt to study these variables that have not previously been investigated.

While the results were not significant for all outcomes, there are some indications of significance in the above analyses and this warrants further attention to these variables, particularly owing to the fact that the current study sample is relatively small and investigation with a larger sample size would be highly beneficial for this exploratory investigation. Additionally, further analysis into the factor loadings of extrinsic versus intrinsic motivations from among the eleven common motivators could strengthen the research design and contribute to this being an improved measure for future research.

### ***Theoretical and Clinical Implications***

Over the past twelve years, the number of United States military veterans seeking trauma-related treatment and disability compensation for service-connected reasons has tripled (Shane, 2017; United States Department of Veteran Affairs, Veterans Benefits Administration, 2018) and a significant number of veterans experience transition difficulties upon returning from war (Bryan et al., 2018; Department of the Army, 2010; Morin, 2011; Orvis, 2019). There is increasing awareness that these negative mental health outcomes may stem not only from threat-to-life traumas as previously conceived and, subsequently, there is growing agreement that a wider understanding of trauma subtypes and differential diagnosis is needed (Griffin et al., 2019; Jinkerson, 2016; Koenig et al. 2018; Nilsson et al., 2015; Shay, 2014).

As discussed in Chapter Two, the PTSD Criteria A requirement does not account for all events that would constitute pMIEs (APA, 2013; Currier et al., 2018; Litz & Kerig, 2019). This

is evidenced in the current study by the endorsement of Post Battle events that more highly correlated in significant and positive ways with symptomology, but that would not fall under the definition of “exposure to actual or threatened death, serious injury, or sexual violence.” These findings highlight the growing consensus that MI and PTSD are thought to be distinct but overlapping (Bryan et al., 2018; Currier et al., 2015a; Drescher et al., 2011; Farnsworth et al., 2017; Litz et al., 2009; Shay, 2014; Vargas et al., 2013), and these results add support to the argument that more diagnostic clarity is needed, either to enhance the criterion A requirements to more fully account for MI events, or to establish an appropriate syndrome, subtype, or differential diagnosis of MI separate from PTSD.

To gain diagnostic clarity, more research is needed into these various trauma trajectories and a deepened understanding of values-based moral violations will be necessary. The findings of the current research suggest that, in regard to what distinguishes between functional as opposed to dysfunctional, moral pain (Farnsworth et al., 2017), or what constitutes an increasingly problematic spectrum of moral stressors, moral challenges, or morally injurious events (Litz & Kerig, 2019), it is the impacted veteran’s perception that will be imperative for categorization. The current research adds strength to previous work in this area and has implications for supporting an etiology based more highly on subjective experiences and perceived violations than on objective events. While these concepts are not novel in the MI literature (Currier et al., 2015; Koenig et al., 2018, Nash et al., 2013), it is proposed, and supported by the current research design, that these philosophical and existential aspects of trauma and values-violations must be more centrally located in MI scales and investigations.

Theoretically, the SCT-IT framework can support and guide future research in MI with a more comprehensive theoretical underpinning. Notably, it adds value as a result of its inclusion of concepts related to the multidirectional influence of triadic reciprocity and concepts of

agency, self-verification, self-perception, and the impact that possession of various roles in society has on well-being (Bandura, 1986; 2005; Hogg et al., 1995; Schunk & DiBenedetto, 2020; Stets & Burke, 2000). Viewing MI through a stronger theoretical lens, particularly one that accounts for identity perceptions, can aid in the development of improved measures and direct the research design of future studies through refined conceptualizations of identity competition versus integration, the moral responsibility of active and aspiring agents, matters of culpability and social sanctions against other purposive agents, and by enhancing focus on the transition periods and unique cultures that military members navigate at various points in their life and military career.

The need for increased focus on philosophical and existential factors, including meaning-making as a key variable, has strong implications for counselor educators as well. Currently, many practitioners are taught to avoid, and subsequently verbalize discomfort with, incorporating spiritual aspects of a client's worldview into clinical work (Burkman et al., 2019). Yet, these spiritual and existential forces appear to be central and pivotal in understanding perceived moral violations that are unique to each person's moral code. The treatment implications and potentially negative consequences of not incorporating appropriate values-based interventions is not only an ethical issue (ACA, 2014), but is a clinical one as well.

The lack of attention to morally-related aspects of one's experiences has been cited in previous research (Litz et al., 2009; Schorr et al., 2018) and may contribute to a lack of efficacy in treatments, for instance, in those that attempt to target more objective aspects of trauma or that aim to reframe "distorted" thoughts (Farnsworth, 2019). Clinical approaches that honor and intentionally incorporate values-based diversity and multicultural aspects of an individual's moral codes and identity will likely contribute greatly to improved outcomes for treatment-

seeking veterans. This paradigm shift will need to occur not only in the clinical space, but in graduate training programs as well.

The implications for graduate training programs, then, is that there may be a need for universities to broaden the scope of their programs to better prepare counselors-in-training for competence in these morality-based skills. As stated earlier in this work, the purpose would not be to educate on what *is* moral, but rather to learn to deal with each individual's unique code of morality more deliberately. With an enhanced scope of counselor training and with continued treatment development aimed at advancing quality care, the resulting benefits could extend to larger ecological systems as well.

In addition to improved individual outcomes for those in treatment, families and communities would also benefit due to the potential for positive systemic changes that could result. Since there are potentially tens of thousands of veterans experiencing MI, having access to improved care that targets MI specifically, could increase levels of adaptive functioning in these individuals with positive systemic results (NCVAS, 2016a; United States Department of Veteran Affairs, Veterans Benefits Administration, 2018). The significant implications for the mental health care of veterans returning from war, and for their families, could extend to policy initiatives that may be able to be preventative as well.

Macro-level policies and training programs that prepare military members for the morality-based violations that they may experience and that aid in prevention or resilience are currently lacking. Such concepts of potential moral violation are not included in typical military training and it has also been cited in the literature that there is a lack of guidance and preparation as a military member transitions out of military service (Mobbs and Bonnano, 2018; Morin, 2011). The absence of such education was evidenced in the current study by a quote from one participant who, after completing the survey, stated, "By the way, those questions are very spot

on, [much] of it I can relate [to], but it was never brought up before or after my [Medical Evaluation Board] (active duty), including the VA claim before & after separation.” Through better education, training, and treatment, counselors will be able to better support morally wounded veterans, encourage resilience, and work toward posttraumatic moral adaptation.

### **Limitations of the Study**

A number of potential limitations of the current study should be mentioned. The study design in the present research is correlational and it is, therefore, important to note that even statistically significant results do not suggest, nor was the researcher able to test for, causality. The sample size of the current study was also relatively small, thus impacting overall power in the analyses. Additionally, there are noteworthy limitations resulting from some of the measures themselves and how predictor and mediator variables, specifically, were measured. For instance, there are potential limitations in the initial conceptualization of T-O and T-S that were noted above and meaning-making as a variable may have potential shortcomings as well, considering the various interpretations of this construct (George & Park, 2016; Heintzelman & King, 2014; Janoff-Bulman, 1992; King et al., 2006; Martela & Steger, 2016; Park, 2010; Park & Folkman, 1997; Steger, 2012). For example, the ISLES-SF was utilized in this current research as a measure for meaning-making, though alternative scales may exist or need to be created to more accurately capture the construct.

An additional potential limitation that existed in the current study is the entirely self-report method of data collection. Though it is proposed here that self-report is essential for capturing the unique moral codes and violations inherent in pMIE exposures, such as through PMV, in general, self-report measures can be limiting in other ways. Such self-report measures allow for the possibility of distorted or forgotten memories, which can impact responding. Additionally, social desirability may become a relevant factor impacting self-reporting, which is

particularly relevant in the present research in which transgressions-self may be underreported (Ellemers et al., 2019). A further complication in the present research exists as a natural outcome of the very topic itself, in that PTSD and moral injury are believed to be associated with avoidance and withdrawal symptoms (APA, 2013; Burkman et al., 2019; Farnsworth et al., 2017). This may mean that prospective participants representing a specific constellation of symptoms might have denied consent to participate in the study or may have been more susceptible to attrition as they were asked to recall specific situations involving transgressions or other difficult memories. This possibility is supported when considering that guilt and shame have been shown to be avoidant emotions (Litz et al., 2009) and is also supported by one comment left by a prospective participant who presumably refrained from completing the survey. This participant remarked, “Sorry but your survey asks me to open up a lot of old wounds.” Furthermore, considering expert opinion that suggests that veterans may have difficulty identifying feeling-states regarding the experience of pMIEs (Yeterian et al., 2019), awareness of the resulting symptomology may be limited and more involved measurement processes, such as those involving biofeedback, may be beneficial to capture physiological responses and may provide more accurate data.

A final potential limitation of the present research is that data collection was completed from September-October 2020. This timeframe of data collection corresponds with events in the United States involving an ongoing global pandemic resulting from COVID-19, extensive racial tensions, and a particularly hostile Presidential election which may have had unknown impact on recruitment and on study results.

### **Suggestions for Future Research**

Results provide support for the assertion that serious issues in measurement of MI exist. There is a need for further research and development of adequate psychometric evaluation tools

including those that would best capture pMIE exposure. Additionally, measures that intentionally incorporate examination of the theoretical framework of meaning-making, both as conceptualized through global and situational meaning (Janoff-Bulman, 1992; Park, 2010; Park & Folkman, 1997) as well as when meaning is defined through purpose, coherence, and significance (George & Park, 2016; Heintzelman & King, 2014; King et al., 2006; Martela & Steger, 2016; Steger, 2012) would be beneficial. The latter conceptualization has not, to the author's knowledge, been explored in MI research. Additionally, improved scales of measurement for identity integration, a new variable for consideration in MI, are warranted for continued research and exploration into matters of identity conflict in military populations. Finally, motivations to enlist were only somewhat supported as a relevant variable in the current study, but this could be due to limitations in the current research design. It is possible that with further factor analysis and investigation that these variables may be found to be significant and this is an area suggested for further research.

In addition to measurement improvements, it is suggested that future MI research be conducted with strengthened theoretical underpinnings to guide these investigations. Currently, there are not comprehensive frameworks that direct much of the research, and there is little to no focus on the implications that come from what is known in the moral psychology literature. By utilizing stronger theoretical frameworks in MI, it is proposed that this will add value to the MI literature. The SCT-IT framework conceptualized in the current research is an early attempt at this effort, and the focus on the psychology of morality concepts and foundations is thought to be critical in enhancing directions for future research by accounting for the unique philosophical and existential considerations that are often not included in other trauma research. Since MI is thought to be a values-based syndrome these forces are posited to be an essential aspect of future investigations.

Other suggestions for future research include conducting qualitative research to better understand the new exploratory variables examined, incorporating research focused on intragroup mechanisms and dynamics that are currently underrepresented (Ellemers et al., 2019), and examining MI trajectories more in non-military populations for which there is a current lack of research-based evidence (Currier et al., 2018). With continued research and understanding in new populations, researchers will be better able to fill existing gaps in understanding and will be able to generalize to larger and non-military populations and begin to deepen understanding of those important areas.

### **Summary of Chapter**

This chapter provided a summary of the findings, implications, and limitations of the current study and provided suggestions for future research. Consistent with previous findings, pMIE exposure was found to be significantly and positively correlated with all mental health outcomes measured, but only when conceptualized as PMV, not as T-O and T-S. Unexpectedly, meaning-making was not supported as a mediating variable for anger or depression, but was found, as expected, to be significant as a mediating variable for guilt/shame and for lack of trust and was also found to be significant as a moderator for suicidality

As theorized, results also suggest that identity integration may be a relevant variable for further exploration. This initial analysis of exploratory variables suggest that for service members who feel tension or conflict between their service member and civilian identities or roles, there is a large effect on mental health outcomes. Motivations, conceptualized as motivations to enlist, were not found to be significantly correlated with anger or depression. However, intrinsic motivations were significantly and negatively correlated with suicidality and extrinsic motivations were significantly and positively correlated with guilt and lack of trust.

This finding supports the position that motivations may be a variable of interest for future investigations.

Whereas previous MI research has overlooked some of the philosophical and existential factors that are thought to be pivotal in MI, the current undertaking deliberately included an overt focus in this area by introducing new identity and motivations variables. This investigation thereby positioned these philosophical and existential aspects of MI as a central focus and this chapter discussed the relevant findings and conclusions pertaining to the many noteworthy and significant results of this study that will require additional research.

### **Summary of Study**

This study attempted to build upon existing knowledge of MI and to introduce new variables for consideration. The theoretical framework utilized and research questions addressed in this undertaking attempted to bring a more holistic, comprehensive view of the individual to the study of MI. It was proposed that, by beginning to account for identity factors and agentic processes as understood through the framework of SCT-IT and the philosophical and existential lens of moral psychology, that MI research could be enhanced. As researchers seek to understand a syndrome that is, by its very nature and definition, moral in nature, this study sought to advocate for the more intentional and overt inclusion of person-specific conceptualizations of constructs that may better honor the values-based diversity and existential nature of moral injury. It is hoped that this study will serve as a small piece of the puzzle to better understanding how what is uniquely perceived as immoral to a particular individual will impact the overall functioning and well-being of that person in ways that may move them past functional moral pain to a place of struggle that manifests as a syndrome of moral injury.

### References

- American Counseling Association (2014). *ACA Code of Ethics*. Alexandria, VA: Author.
- American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: Author.
- American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders* (3th ed., text rev.). Washington, DC: Author.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Aristotle. (1941). *The basic works of Aristotle* (R. McKeon, Trans. and Ed.). New York: Random House. (Original work published 4th century B.c.)
- Arpaly, N. (2003). *Unprincipled virtue: An inquiry into moral agency*. Oxford University Press.
- Antonelli, M. (2017). Moral injury. *American Journal of Psychoanalysis*, 77(4), 406-416.  
<https://doi:10.1057/s11231-017-9107-4>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall
- Bandura, A. (1991). Social cognitive theory of moral thought and action. In W. M. Kurtines, & J. L. Gewirtz (Eds.), *Handbook of moral behavior and development* (Vol. 1, pp. 45–103). Erlbaum.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52(1), 1-26. <https://doi:10.1146/annurev.psych.52.1.1>

- Bandura, A., Ross, D., & Ross, S. A. (1963). Imitation of film-mediated aggressive models. *The Journal of Abnormal and Social Psychology*, 66(1), 3-11.  
<https://doi.org/10.1037/h0048687>
- Bandura, A. (2005). The evolution of social cognitive theory. *Great minds in management*, 9-35.  
<http://www.uky.edu/~eushe2/BanduraPubs/Bandura2005.pdf>
- Bandura, A. (2012). On the functional properties of perceived self-efficacy revisited. *Journal of Management*, 38(1), 9-44. <https://doi.org/10.1177/0149206311410606>
- Bar On, B. (2012). Standing between us and our grave wrongdoings. *Midwest Studies in Philosophy*, 36(1), 112-126. <https://doi:10.1111/j.1475-4975.2012.00237.x>
- Battles, A. R., Kelley, M. L., Jinkerson, J. D., C. Hamrick, H., & F. Hollis, B. (2019). Associations among exposure to potentially morally injurious experiences, spiritual injury, and alcohol use among combat veterans. *Journal of Traumatic Stress*, 32(3), 405-413. <https://doi:10.1002/jts.22404>
- Baumeister, R. F., & Vohs, K. D. (2016). Strength model of self-regulation as limited resource: Assessment, controversies, update. In *Advances in experimental social psychology* (Vol. 54, pp. 67-127). Academic Press.
- Beard, C., Hsu, K. J., Rifkin, L. S., Busch, A. B., & Björgvinsson, T. (2016). Validation of the PHQ-9 in a psychiatric sample. *Journal of Affective Disorders*, 193, 267-273.  
<https://doi:10.1016/j.jad.2015.12.075>
- Beierl, E. T., Böllinghaus, I., Clark, D. M., Glucksman, E., & Ehlers, A. (2019). Cognitive paths from trauma to posttraumatic stress disorder: a prospective study of Ehlers and Clark's model in survivors of assaults or road traffic collisions. *Psychological medicine*, 1-10.  
<https://doi:10.1017/S0033291719002253>

- Beltran, R. O., & Silove, D. (1999). Expert opinions about the ICD-10 category of enduring personality change after catastrophic experience. *Comprehensive Psychiatry*, 40(5), 396-403. [https://doi:10.1016/S0010-440X\(99\)90147-5](https://doi:10.1016/S0010-440X(99)90147-5)
- Benet-Martínez, V., & Haritatos, J. (2005). Bicultural identity integration (BII): Components and psychosocial antecedents. *Journal of Personality*, 73(4), 1015-1050. <https://doi:10.1111/j.1467-6494.2005.00337.x>
- Benet-Martínez, V., Leu, J., Lee, F., & Morris, M. W. (2002). Negotiating biculturalism: Cultural frame switching in biculturals with oppositional versus compatible cultural identities. *Journal of Cross-Cultural Psychology*, 33(5), 492-516. <https://doi:10.1177/0022022102033005005>
- Blasi, A. (1980). Bridging moral cognition and moral action: A critical review of the literature. *Psychological Bulletin*, 88(1), 1-45. <https://doi:10.1037/0033-2909.88.1.1>
- Bloom, M. (2017). Constructing expertise: Terrorist recruitment and "talent spotting" in the PIRA, al Qaeda, and ISIS. *Studies in Conflict & Terrorism*, 40(7), 603-623. <https://doi:10.1080/1057610X.2016.1237219>
- Bonanno, G. A., & Mancini, A. D. (2012). Beyond resilience and PTSD: Mapping the heterogeneity of responses to potential trauma. *Psychological Trauma: Theory, Research, Practice, and Policy*, 4(1), 74-83. <https://doi:10.1037/a0017829>
- Borges, L. M. (2019). A service member's experience of acceptance and commitment therapy for moral injury (ACT-MI) via telehealth: "Learning to accept my pain and injury by reconnecting with my values and starting to live a meaningful life". *Journal of Contextual Behavioral Science*, 13, 134-140. <https://doi:10.1016/j.jcbs.2019.08.002>

- Braden, A., Overholser, J., Fisher, L., & Ridley, J. (2015). Life meaning is associated with suicidal ideation among depressed veterans. *Death Studies, 39*(1), 24-29.  
<https://doi.org/10.1080/07481187.2013.871604>
- Brannen, M. Y., & Thomas, D. C. (2010). Bicultural individuals in organizations: Implications and opportunity. *International Journal of Cross Cultural Management, 10*(1), 5-16.  
<https://doi.org/10.1177/1470595809359580>
- Breen, C. (2019). Exploring Terrorism through Criminological Theories. *International Journal of Business and Social Science, 10*(7), 195-211. <https://doi.org/10.30845/ijbss.v10n7p22>
- Bryan, C. J., Bryan, A. O., Anestis, M. D., Anestis, J. C., Green, B. A., Etienne, N., . . . Ray-Sannerud, B. (2016). Measuring moral injury: Psychometric properties of the moral injury events scale in two military samples. *Assessment, 23*(5), 557-570.  
<https://doi.org/10.1177/1073191115590855>
- Bryan, C. J., Bryan, A. O., Roberge, E., Leifker, F. R., & Rozek, D. C. (2018). Moral injury, posttraumatic stress disorder, and suicidal behavior among national guard personnel. *Psychological Trauma: Theory, Research, Practice and Policy, 10*(1), 36-45.  
<https://doi.org/10.1037/tra0000290>
- Bryan, C. J., Elder, W. B., McNaughton-Cassill, M., Osman, A., Hernandez, A. M., & Allison, S. (2013). Meaning in life, emotional distress, suicidal ideation, and life functioning in an active duty military sample. *The Journal of Positive Psychology, 8*(5), 444-452.  
<https://doi.org/10.1080/17439760.2013.823557>
- Burkman, K., Purcell, N., & Maguen, S. (2019). Provider perspectives on a novel moral injury treatment for veterans: Initial assessment of acceptability and feasibility of the impact of killing treatment materials. *Journal of Clinical Psychology, 75*(1), 79-94.  
<https://doi.org/10.1002/jclp.22702>

- Button, C. J., Jinkerson, J., & Bryan, C. J. (2017). Making meaning after combat trauma and moral injury. In *Reconstructing Meaning After Trauma* (pp. 167-184). Academic Press.
- Chen, S. X., Benet-Martínez, V., Wu, W. C., Lam, B. C., & Bond, M. H. (2013). The role of dialectical self and bicultural identity integration in psychological adjustment. *Journal of personality, 81*(1), 61-75. <https://doi:10.1111/j.1467-6494.2012.00791.x>
- Chiou, A. Y., & Mercado, B. K. (2016). Flexible loyalties: How malleable are bicultural loyalties? *Frontiers in Psychology, 7* doi:10.3389/fpsyg.2016.01985
- Clever, M., & Segal, D. R. (2012). After conscription: The united states and the all-volunteer force. *Sicherheit Und Frieden (S+F) / Security and Peace, 30*(1), 9-18.  
<https://doi:10.5771/0175-274x-2012-1-9>
- Corey, G. (2017). *Theory and practice of counseling and psychotherapy* (10th ed.). CENGAGE Learning.
- Cooper, J. M., & Hutchinson, D. S. (Eds.). (1997). *Plato: complete works*. Hackett Publishing.
- Corona, C. D., Van Orden, K. A., Wisco, B. E., & Pietrzak, R. H. (2019). Meaning in life moderates the association between morally injurious experiences and suicide ideation among U.S. combat veterans: Results from the national health and resilience in veterans study. *Psychological Trauma: Theory, Research, Practice and Policy, 11*(6), 614-620.  
<https://doi:10.1037/tra0000475>
- Currier, J. M., Farnsworth, J. K., Drescher, K. D., McDermott, R. C., Sims, B. M., & Albright, D. L. (2018). Development and evaluation of the expressions of moral injury Scale—Military version. *Clinical Psychology & Psychotherapy, 25*(3), 474-488.  
<https://doi:10.1002/cpp.2170>

- Currier, J. M., Holland, J. M., Drescher, K., & Foy, D. (2015a). Initial psychometric evaluation of the moral injury Questionnaire—Military version. *Clinical Psychology & Psychotherapy*, 22(1), 54-63. <https://doi:10.1002/cpp.1866>
- Currier, J. M., Holland, J. M., & Malott, J. (2015b). Moral injury, meaning making, and mental health in returning veterans. *Journal of Clinical Psychology*, 71(3), 229-240. <https://doi:10.1002/jclp.22134>
- Cushman, F., Young, L., Hauser, M. (2006). The role of conscious reasoning and intuition in moral judgment: testing three principles of harm. *Psychological Science*, 17(12), 1082–1089. <https://doi:10.1111/j.1467-9280.2006.01834.x>
- Department of the Army. (2010). *Health promotion, risk reduction, and suicide prevention report*. [https://preventsuicide.army.mil/docs/Commanders%20Tool%20Kit/HPRRSP\\_Report\\_2010\\_v00.pdf](https://preventsuicide.army.mil/docs/Commanders%20Tool%20Kit/HPRRSP_Report_2010_v00.pdf)
- Dill, J. (2019). Do attackers have a legal duty of care? limits to the ‘individualization of war’. *International Theory*, 11(1), 1-25. <https://doi:10.1017/S1752971918000222>
- Drescher, K. D., Foy, D. W., Kelly, C., Leshner, A., Schutz, K., & Litz, B. (2011). An exploration of the viability and usefulness of the construct of moral injury in war veterans. *Traumatology*, 17(1), 8-13. <https://doi:10.1177/1534765610395615>
- Ehlers, A., & Clark, D. M. (2000). A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy*, 38(4), 319-345. [https://doi:10.1016/S0005-7967\(99\)00123-0](https://doi:10.1016/S0005-7967(99)00123-0)
- Ehring, T., Ehlers, A., & Glucksman, E. (2008). Do cognitive models help in predicting the severity of posttraumatic stress disorder, phobia, and depression after motor vehicle accidents? A prospective longitudinal study. *Journal of consulting and clinical psychology*, 76(2), 219-230. <https://doi:10.1037/0022-006X.76.2.219>

- Elklit, A., Shevlin, M., Solomon, Z., & Dekel, R. (2007). Factor structure and concurrent validity of the world assumptions scale. *Journal of Traumatic Stress, 20*(3), 291-301. <https://doi:10.1002/jts.20203>
- Ellemers, N., van der Toorn, J., Paunov, Y., & van Leeuwen, T. (2019). The psychology of morality: A review and analysis of empirical studies published from 1940 through 2017. *Personality and Social Psychology Review, 23*(4), 332-366. <https://doi:10.1177/1088868318811759>
- Erez, L. (2017). Pro mundo mori? the problem of cosmopolitan motivation in war. *Ethics & International Affairs, 31*(2), 143-165. <https://doi:10.1017/S0892679417000053>
- Etzioni, A. (2009). Terrorists: Neither soldiers nor criminals. *Military Review, 89*(4), 108.
- Farnsworth, J. K. (2019). Is and ought: Descriptive and prescriptive cognitions in military-related moral injury. *Journal of Traumatic Stress, 32*(3), 373-381. <https://doi:10.1002/jts.22356>
- Farnsworth, J. K., Drescher, K. D., Evans, W., & Walser, R. D. (2017). A functional approach to understanding and treating military-related moral injury. *Journal of Contextual Behavioral Science, 6*(4), 391-397. <https://doi:10.1016/j.jcbs.2017.07.003>
- Fernandez-Dols, J. M., Aguilar, P., Campo, S., Vallacher, R. R., Janowsky, A., Rabbia, H., ... & Lerner, M. J. (2010). Hypocrites or maligned cooperative participants? Experimenter induced normative conflict in zero-sum situations. *Journal of Experimental Social Psychology, 46*(3), 525-530. <https://doi:10.1016/j.jesp.2010.02.001>
- Flanagan, J. & Flanagan, R. (2018). *Counseling and psychotherapy theories in context and practice: Skills, strategies, and techniques*. John Wiley and Sons, Inc.
- Foa, E. B., Ehlers, A., Clark, D. M., Tolin, D. F., & Orsillo, S. M. (1999). The Posttraumatic Cognitions Inventory (PTCI): Development and validation. *Psychological Assessment, 11*, 303–314. <https://doi:10.1037/1040-3590.11.3.303>

- Foa, E. B., Steketee, G., & Rothbaum, B. O. (1989). Behavioral/cognitive conceptualisation of post-traumatic stress disorder. *Behavior Therapy*, 20, 155 – 176.  
[https://doi.org/10.1016/S0005-7894\(89\)80067-X](https://doi.org/10.1016/S0005-7894(89)80067-X)
- Foa, E. B., & Rothbaum, B. O. (1998). *Treating the trauma of rape: cognitive behavioral therapy for PTSD*. New York: Guilford Press.
- Forbes, D., Alkemade, N., Hopcraft, D., Hawthorne, G., O'Halloran, P., Elhai, J. D., . . . Lewis, V. (2014). Evaluation of the dimensions of anger reactions-5 (DAR-5) scale in combat veterans with posttraumatic stress disorder. *Journal of Anxiety Disorders*, 28(8), 830-835.  
<https://doi.org/10.1016/j.janxdis.2014.09.015>
- Forbes, D., Hawthorne, G., Elliott, P., McHugh, T., Biddle, D., Creamer, M., & Novaco, R. W. (2004). A concise measure of anger in combat-related posttraumatic stress disorder. *Journal of Traumatic Stress*, 17(3), 249-256.  
<https://doi.org/10.1023/B:JOTS.0000029268.22161.bd>
- Fontana, A., & Rosenheck, R. (2004). Trauma, change in strength of religious faith, and mental health service use among veterans treated for PTSD. *The Journal of Nervous and Mental Disease*, 192(9), 579-584. <https://doi.org/10.1097/01.nmd.0000138224.17375.55>
- Frankfurt, S., & Frazier, P. (2016). A review of research on moral injury in combat veterans. *Military Psychology*, 28(5), 318-330. <https://doi.org/10.1037/mil0000132>
- Frankfurt, S. B., Frazier, P., & Engdahl, B. (2017). Indirect relations between transgressive acts and general combat exposure and moral injury. *Military Medicine*, 182(11), e1950-e1956.  
<https://doi.org/10.7205/MILMED-D-17-00062>
- Fu, J. H., Chiu, C., Morris, M. W., & Young, M. J. (2007). Spontaneous inferences from cultural cues: Varying responses of cultural insiders and outsiders. *Journal of Cross-Cultural Psychology*, 38(1), 58-75. <https://doi.org/10.1177/0022022106295443>

- George, L. S., & Park, C. L. (2016). Meaning in life as comprehension, purpose, and mattering: Toward integration and new research questions. *Review of General Psychology*, 20(3), 205-220. <https://doi:10.1037/gpr0000077>
- Gilligan, C. (1982). *In a Different Voice: Psychological Theory and Women's Development*. Harvard University Press.
- Gino, F., Schweitzer, M. E., Mead, N. L., & Ariely, D. (2011). Unable to resist temptation: How self-control depletion promotes unethical behavior. *Organizational behavior and human decision processes*, 115(2), 191-203. <https://doi:10.1016/j.obhdp.2011.03.001>
- Graham, J., Haidt, J., Koleva, S., Motyl, M., Iyer, R., Wojcik, S. P., & Ditto, P. H. (2013). Moral foundations theory: The pragmatic validity of moral pluralism. *Advances in Experimental Social Psychology*, 47, 1-64. <https://doi:10.1016/B978-0-12-407236-7.00002-4>
- Graham, J., Haidt, J., & Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology*, 96(5), 1029-1046. <https://doi:10.1037/a0015141>
- Graham, J., Nosek, B. A., Haidt, J., Iyer, R., Koleva, S., & Ditto, P. H. (2011). Mapping the moral domain. *Journal of Personality and Social Psychology*, 101(2), 366-385. <https://doi:10.1037/a0021847>
- Gray, M. J., Nash, W. P., & Litz, B. T. (2017). When self-blame is rational and appropriate: The limited utility of socratic questioning in the context of moral injury: Commentary on wachen et al. (2016). *Cognitive and Behavioral Practice*, 24(4), 383-387. <https://doi:10.1016/j.cbpra.2017.03.001>
- Greene, J.D., 2009. Dual-process morality and the personal/impersonal distinction: a reply to McGuire, Langdon, Coltheart, and Mackenzie. *Journal of Experimental Social Psychology*, 45 (3), 581–584, <https://doi:10.1016/j.jesp.2009.01.003>.

- Greene, J.D., Cushman, F.A., Stewart, L.E., Lowenberg, K., Nystrom, L.E., Cohen, J.D., 2009. Pushing moral buttons: the interaction between personal force and intention in moral judgment. *Cognition*, 111 (3), 364–371, <https://doi:10.1016/j.cognition.2009.02.001>.
- Greene, J. D., Sommerville, R. B., Nystrom, L. E., Darley, J. M., & Cohen, J. D. (2001). An fMRI investigation of emotional engagement in moral judgment. *Science*, 293(5537), 2105-2108. <https://doi:10.1126/science.1062872>
- Griffin, B. J., Purcell, N., Burkman, K., Litz, B. T., Bryan, C. J., Schmitz, M., . . . Maguen, S. (2019). Moral injury: An integrative review. *Journal of Traumatic Stress*, 32(3), 350-362. <https://doi:10.1002/jts.22362>
- Griffith, J. (2008). Institutional motives for serving in the U.S. army national guard: Implications for recruitment, retention, and readiness. *Armed Forces & Society*, 34(2), 230-258. <https://doi:10.1177/0095327X06293864>
- Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review*, 108(4), 814-834. <https://doi:10.1037//0033-295X.108.4.814>
- Haidt, J. (2003). The moral emotions. *Handbook of affective sciences*, 11(2003), 852-870. [https://www.overcominghateportal.org/uploads/5/4/1/5/5415260/the\\_moral\\_emotions.pdf](https://www.overcominghateportal.org/uploads/5/4/1/5/5415260/the_moral_emotions.pdf)
- Halligan, S. L., Michael, T., Clark, D. M., & Ehlers, A. (2003). Posttraumatic stress disorder following assault: the role of cognitive processing, trauma memory, and appraisals. *Journal of consulting and clinical psychology*, 71(3), 419-431. <https://doi:10.1037/0022-006X.71.3.419>.
- Hansen, C. (2019). Glimmers of the infinite: The tragedy of moral injury. *Dialog*, 58(1), 64-69. <https://doi:10.1111/dial.12454>

- Hayes, A. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. The Guilford Press.
- Heintzelman, S. J., & King, L. A. (2014). (The feeling of) meaning-as-information. *Personality and Social Psychology Review*, 18(2), 153–167. <https://doi:10.1177/1088868313518487>
- Held, P., Klassen, B. J., Hall, J. M., Friese, T. R., Bertsch-Gout, M. M., Zalta, A. K., & Pollack, M. H. (2019). "I knew it was wrong the moment I got the order": A narrative thematic analysis of moral injury in combat veterans. *Psychological Trauma: Theory, Research, Practice and Policy*, 11(4), 396-405. <https://doi:10.1037/tra0000364>
- Helmus, T., Zimmerman, R., Posard, M., Wheeler, J., Ogletree, C., Stroud, Q., and Harrell, M. (2018). *Life as a Private: A Study of the Motivations and Experiences of Junior Enlisted Personnel in the U.S. Army*. RAND Corporation, [https://www.rand.org/pubs/research\\_reports/RR2252.html](https://www.rand.org/pubs/research_reports/RR2252.html).
- Heston, T. F., & Pahang, J. A. (2019). Moral injury or burnout? *Southern Medical Journal*, 112(9), 483-483. <https://doi:10.14423/SMJ.00000000000001018>
- Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D. I., & Koffman, R. L. (2004). Combat duty in iraq and afghanistan, mental health problems, and barriers to care. *The New England Journal of Medicine*, 351(1), 13-22. <https://doi:10.1056/NEJMoa040603>
- Hogg, M. A., Terry, D. J., & White, K. M. (1995). A tale of two theories: A critical comparison of identity theory with social identity theory. *Social psychology quarterly*, 255-269. <https://doi:10.2307/2787127>
- Holland, J. M., Currier, J. M., Coleman, R. A., & Neimeyer, R. A. (2010). The integration of stressful life experiences scale (ISLES): Development and initial validation of a new measure. *International Journal of Stress Management*, 17(4), 325-352. <https://doi:10.1037/a0020892>

- Holland, J. M., Currier, J. M., & Neimeyer, R. A. (2014). Validation of the integration of stressful life experiences scale-short form in a bereaved sample. *Death Studies: Meaning and Spirituality in Grief*, 38(4), 234-238. <https://doi:10.1080/07481187.2013.829369>
- Houtsma, C., Khazem, L. R., Green, B. A., & Anestis, M. D. (2017). Isolating effects of moral injury and low post-deployment support within the U.S. military. *Psychiatry Research*, 247, 194-199. <https://doi:10.1016/j.psychres.2016.11.031>
- Hutcherson, C. A., & Gross, J. J. (2011). The moral emotions: A social–functionalist account of anger, disgust, and contempt. *Journal of personality and social psychology*, 100(4), 719-737. <https://doi:10.1037/a0022408>.
- Huynh, Q. L., Benet-Martínez, V., & Nguyen, A. M. D. (2018). Measuring variations in bicultural identity across US ethnic and generational groups: Development and validation of the Bicultural Identity Integration Scale—Version 2 (BIIS-2). *Psychological Assessment*, 30(12), 1581. <http://dx.doi.org/10.1037/pas0000606>
- Ingram, A. (2015). The good, the bad, and the klutzy: Criminal negligence and moral concern. *Criminal Justice Ethics*, 34(1), 87-115. <https://doi:10.1080/0731129X.2015.1026117>
- Issacharoff, S., & Pildes, R. H. (2013). Targeted warfare: Individuating enemy responsibility. *New York University Law Review*, 88(5), 1521. <https://www.nyulawreview.org/wp-content/uploads/2018/08/NYULawReview-88-5-IssacharoffPildes.pdf>
- Jamnik, M. R., & Lane, D. J. (2017). The use of Reddit as an inexpensive source for high-quality data. *Practical Assessment, Research, and Evaluation*, 22(1), 5. <https://doi.org/10.7275/swgt-rj52>
- Janoff-Bulman, R. (1989). Assumptive worlds and the stress of traumatic events: Applications of the schema construct. *Social Cognition*, 7(2), 113-136. <https://doi:10.1521/soco.1989.7.2.113>

- Janoff-Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma*. Free Press
- Janoff-Bulman, R., & Carnes, N. C. (2013). Surveying the moral landscape: Moral motives and group-based moralities. *Personality and Social Psychology Review*, 17(3), 219-236.  
[https://doi:10.1177/1088868313480274](https://doi.org/10.1177/1088868313480274)
- Jensen, L. A. (2011). *Bridging cultural and developmental approaches to psychology: New syntheses in theory, research, and policy*. Oxford University Press.
- Jinkerson, J. D. (2016). Defining and assessing moral injury: A syndrome perspective. *Traumatology*, 22(2), 122-130. [https://doi:10.1037/trm0000069](https://doi.org/10.1037/trm0000069)
- Jinkerson, J. D., & Battles, A. R. (2019). Relationships between moral injury syndrome model variables in combat veterans. *Traumatology*, 25(1), 33-40.  
[https://doi:10.1037/trm0000163](https://doi.org/10.1037/trm0000163)
- Jones, E. (2018). Moral injury in time of war. *The Lancet*, 391(10132), 1766-1767.  
[https://doi:10.1016/S0140-6736\(18\)30946-2](https://doi.org/10.1016/S0140-6736(18)30946-2)
- Jordan, A. H., Eisen, E., Bolton, E., Nash, W. P., & Litz, B. T. (2017). Distinguishing war-related PTSD resulting from perpetration- and betrayal-based morally injurious events. *Psychological Trauma: Theory, Research, Practice and Policy*, 9(6), 627-634.  
[https://doi:10.1037/tra0000249](https://doi.org/10.1037/tra0000249)
- Kaler, M. E., Frazier, P. A., Anders, S. L., Tashiro, T., Tomich, P., Tennen, H., & Park, C. (2008). Assessing the psychometric properties of the world assumptions scale. *Journal of Traumatic Stress*, 21(3), 326-332. [https://doi:10.1002/jts.20343](https://doi.org/10.1002/jts.20343)
- Kang, H. K., Bullman, T. A., Smolenski, Derek J., Skopp, N. A., Gahm, G. A., & Reger, M. A. (2015). Suicide risk among 1.3 million veterans who were on active duty during the Iraq

- and afghanistan wars. *Annals of Epidemiology*, 25(2), 96-100.  
<https://doi:10.1016/j.annepidem.2014.11.020>
- Kant, I. (1959). *Foundations of the metaphysics of morals: And What is enlightenment?*. Liberal Arts Press.
- Kasher, A. (2007). The principle of distinction. *Journal of Military Ethics: JUST AND UNJUST WARS: THIRTY YEARS ON*, 6(2), 152-167. <https://doi:10.1080/15027570701436841>
- Kelley, M. L., Braitman, A. L., White, T. D., & Ehlke, S. J. (2019a). Sex differences in mental health symptoms and substance use and their association with moral injury in veterans. *Psychological Trauma*, 11(3), 337-344. <https://doi:10.1037/tra0000407>
- Kelley, M. L., Bravo, A. J., Hamrick, H. C., Braitman, A. L., & Judah, M. R. (2019b). Killing during combat and negative mental health and substance use outcomes among recent-era veterans: The mediating effects of rumination. *Psychological Trauma: Theory, Research, Practice, and Policy*, 11(4), 379-382. <https://doi:10.1037/tra0000385>
- Kelley, L. P., Weathers, F. W., Mason, E. A., & Pruneau, G. M. (2012). Association of life threat and betrayal with posttraumatic stress disorder symptom severity. *Journal of Traumatic Stress*, 25(4), 408-415. <https://doi:10.1002/jts.21727>
- Kessler, R. C., Stein, M. B., Bliese, P. D., Bromet, E. J., Chiu, W. T., Cox, K. L., . . . Ursano, R. J. (2015). Occupational differences in US army suicide rates. *Psychological Medicine*, 45(15), 3293-3304. <https://doi:10.1017/S0033291715001294>
- King, L. A., Hicks, J. A., Krull, J. L., & Del Gaiso, A. K. (2006). Positive affect and the experience of meaning in life. *Journal of Personality and Social Psychology*, 90, 179–196. <https://doi:10.1037/0022-3514.90.1.179>
- Kleiman-Weiner, M., Saxe, R., & Tenenbaum, J. B. (2017). Learning a commonsense moral theory. *Cognition*, 167, 107-123. <https://doi:10.1016/j.cognition.2017.03.005>

- Klein, N., & O'Brien, E. (2016). The tipping point of moral change: When do good and bad acts make good and bad actors? *Social Cognition*, 34(2), 149-166.  
<https://doi.org/10.1521/soco.2016.34.2.149>
- Koenig, H. G., Ames, D., Youssef, N. A., Oliver, J. P., Volk, F., Teng, E. J., . . . Pearce, M. (2018). The moral injury symptom scale-military version. *Journal of Religion and Health*, 57(1), 249-265. <https://doi.org/10.1007/s10943-017-0531-9>
- Koenig, H. G., Youssef, N. A., & Pearce, M. (2019). Assessment of moral injury in veterans and active duty military personnel with PTSD: A review. *Frontiers in Psychiatry*, 10, 443.  
<https://doi.org/10.3389/fpsyt.2019.00443>
- Kohlberg, Lawrence. (1976). Moral Stages and Moralization: The Cognitive-Developmental Approach. In T. Lickona (Ed.), *Moral Development and Behavior*, 31–53. Rinehart and Winston.
- Kohlberg, L. (1981). *The philosophy of moral development* (Essays on moral development: Volume 1). Harper & Row.
- Kohlberg, L. (1984). *The psychology of moral development* (Essays on moral development: Volume 2). Harper & Row.
- Kopacz, M. S., Connery, A. L., Bishop, T. M., Bryan, C. J., Drescher, K. D., Currier, J. M., & Pigeon, W. R. (2016a). Moral injury: A new challenge for complementary and alternative medicine. *Complementary Therapies in Medicine*, 24, 29-33.  
<https://doi.org/10.1016/j.ctim.2015.11.003>
- Kopacz, M. S., Kopacz, M. S., Currier, J. M., Currier, J. M., Drescher, K. D., Drescher, K. D., . . . Pigeon, W. R. (2016b). Suicidal behavior and spiritual functioning in a sample of veterans diagnosed with PTSD. *Journal of Injury and Violence Research*, 8(1), 6-14.  
<https://doi.org/10.5249/jivr.v8i1.728>

- Kopacz, M. S., Lockman, J., Lusk, J., Bryan, C. J., Park, C. L., Sheu, S. C., & Gibson, W. C. (2019). How meaningful is meaning-making? *New Ideas in Psychology*, 54, 76-81.  
<https://doi:10.1016/j.newideapsych.2019.02.001>
- Korb, L. J., & Duggan, S. E. (2007). An all-volunteer army? recruitment and its problems. *PS: Political Science and Politics*, 40(3), 467-471. <https://doi:10.1017/S1049096507070953>
- Krebs, R. R., & Ralston, R. (2020). Patriotism or paychecks: Who believes what about why soldiers serve. *Armed Forces & Society*. <https://doi:10.1177/0095327X20917166>
- Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, 16(9), 606-613.  
<https://doi:10.1046/j.1525-1497.2001.016009606.x>
- Lancaster, S. L., & Miller, M. (2019). Moral decision making, religious strain, and the experience of moral injury. *Psychological Trauma: Theory, Research, Practice, and Policy*, <https://doi:10.1037/tra0000518>
- Larner, B. & Blow, A. (2011). A model of meaning-making coping and growth in combat veterans. *Review of General Psychology*, 15, 187-197.  
<https://pdfs.semanticscholar.org/4ffb/4a46c659260730a60411f205ad6b4a7e51d7.pdf>
- Lawrence & Legree 1996 link <https://apps.dtic.mil/dtic/tr/fulltext/u2/a319605.pdf>
- Leach, C. W. (2017). Understanding shame and guilt. In *Handbook of the psychology of self-forgiveness* (pp. 17-28). Springer.
- Linehan, M. M., & Nielsen, S. L. (1981). Assessment of suicide ideation and parasuicide: Hopelessness and social desirability. *Journal of Consulting and Clinical Psychology*, 49(5), 773-775. <https://doi:10.1037/0022-006X.49.5.773>
- Litz, B. T., Stein, N., Delaney, E., Lebowitz, L., Nash, W. P., Silva, C., & Maguen, S. (2009). Moral injury and moral repair in war veterans: A preliminary model and intervention

- strategy. *Clinical Psychology Review*, 29(8), 695-706.  
<https://doi:10.1016/j.cpr.2009.07.003>
- Litz, B. T., & Kerig, P. K. (2019). Introduction to the special issue on moral injury: Conceptual challenges, methodological issues, and clinical applications. *Journal of Traumatic Stress*, 32(3), 341-349. <https://doi:10.1002/jts.22405>
- MacLean, A. (2018). A few good men and women: Gender, race, and status in the wartime volunteer military. *Population Research and Policy Review*, 37(4), 591-613.  
<https://doi:10.1007/s11113-018-9479-z>
- Maguen, S., Lucenko, B. A., Reger, M. A., Gahm, G. A., Litz, B. T., Seal, K. H., . . . Marmar, C. R. (2010). The impact of reported direct and indirect killing on mental health symptoms in Iraq war veterans. *Journal of Traumatic Stress*, 23(1), 86-90.  
<https://doi:10.1002/jts.20434>
- Maguen, S., Burkman, K., Madden, E., Dinh, J., Bosch, J., Keyser, J., . . . Neylan, T. C. (2017). Impact of killing in war: A randomized, controlled pilot trial. *Journal of Clinical Psychology*, 73(9), 997-1012. <https://doi:10.1002/jclp.22471>
- Mancini, A. D. (2019). When acute adversity improves psychological health: A social-contextual framework. *Psychological Review*, 126(4), 486-505.  
<https://doi:10.1037/rev0000144>
- Mankowski, M., Tower, L. E., Brandt, C. A., & Mattocks, K. (2015). Why women join the military: Enlistment decisions and postdeployment experiences of service members and veterans. *Social Work*, 60(4), 315-323. <https://doi:10.1093/sw/swv035>
- Maoz, H., Goldwin, Y., Lewis, Y. D., & Bloch, Y. (2016). Exploring Reliability and Validity of the Deployment Risk and Resilience Inventory-2 Among a Nonclinical Sample of

- Discharged Soldiers Following Mandatory Military Service. *Journal of Traumatic Stress*, 29(6), 556-562. <https://doi: 10.1002/jts.22135>
- Martela, F., & Steger, M. F. (2016). The three meanings of meaning in life: Distinguishing coherence, purpose, and significance. *The Journal of Positive Psychology*, 11(5), 531-545. <https://doi.org/10.1080/17439760.2015.1137623>
- McGuire, J., Langdon, R., Coltheart, M., & Mackenzie, C. (2009). A reanalysis of the personal/impersonal distinction in moral psychology research. *Journal of Experimental Social Psychology*, 45(3), 577-580. <https://doi.org/10.1016/j.jesp.2009.01.002>
- Meador, K. G., & Nieuwsma, J. A. (2018). Moral injury: Contextualized care. *Journal of Medical Humanities*, 39(1), 93-99. <https://doi:10.1007/s10912-017-9480-2>
- Milgram, S. (1963). Behavioral study of obedience. *Journal of Abnormal and Social Psychology*, 67, 3 71-378. <https://www.demenzemedicinagenerale.net/pdf/MilgramOriginalWork.pdf>
- Miller, G. (2011). Using the psychology of evil to do good. *Science*, 332(6029), 530-532. <https://doi:10.1126/science.332.6029.530>
- Miller, A. (Ed). (2016). *The social psychology of good and evil*. Guilford Press.
- Mobbs, M. C., & Bonanno, G. A. (2018). Beyond war and PTSD: The crucial role of transition stress in the lives of military veterans. *Clinical Psychology Review*, 59, 137-144. <https://doi:10.1016/j.cpr.2017.11.007>
- Mok, A., Cheng, C.-Y., and Morris, M. W. (2010). Matching versus mismatching cultural norms in performance appraisal: effects of the cultural setting and bicultural identity integration. *International Journal of Cross Cultural Management*, 10, 17–35. <https://doi: 10.1177/1470595809359584>
- Moore, A. B., Lee, N.Y.L., Clark, B.A.M., Conway, A.R.A., 2011a. In defence of the personal/impersonal distinction in moral psychology research: cross-cultural validation of

- the dual process model of moral judgment. *Judgment and Decision Making* 6 (3), 186–195.
- Morin, R. (2011). *The difficult transition from military to civilian life*. Pew Research Center. <https://www.pewsocialtrends.org/2011/12/08/the-difficult-transition-from-military-to-civilian-life/>
- Moskos, C. (1977) From Institution to Occupation: Trends in Military Organization, *Armed Forces & Society*, 4(1), 41-50. <https://doi.org/10.1177/0095327X7700400103>
- Muraven, M., Tice, D. M., & Baumeister, R. F. (1998). Self-control as a limited resource: regulatory depletion patterns. *Journal of personality and social psychology*, 74(3), 774. <https://doi.org/10.1037/0022-3514.74.3.774>
- Murdock, N. L. (2017). *Theories of counseling and psychotherapy: A case approach* (4th ed.). Pearson.
- Nash, W. P., Marino Carper, T. L., Mills, M. A., Au, T., Goldsmith, A., & Litz, B. T. (2013). Psychometric evaluation of the moral injury events scale. *Military Medicine*, 178(6), 646-652. <https://doi:10.7205/MILMED-D-13-00017>
- Nash, W. P. (2019). Commentary on the special issue on moral injury: Unpacking two models for understanding moral injury. *Journal of Traumatic Stress*, 32(3), 465-470. <https://doi:10.1002/jts.22409>
- National Center for Veterans Analysis and Statistics. (2016a). *Utilization: Statistical trends: Veterans with a service-connected disability, 1990 to 2018*. [https://www.va.gov/vetdata/docs/QuickFacts/SCD\\_trends\\_FINAL\\_2018.PDF](https://www.va.gov/vetdata/docs/QuickFacts/SCD_trends_FINAL_2018.PDF)
- National Center for Veterans Analysis and Statistics. (2016b). *Utilization: VA utilization profile FY 2016*. [https://www.va.gov/vetdata/docs/QuickFacts/VA\\_Utilization\\_Profile.PDF](https://www.va.gov/vetdata/docs/QuickFacts/VA_Utilization_Profile.PDF)

- Nazarov, A., Fikretoglu, D., Liu, A., Thompson, M., & Zamorski, M. A. (2018). Greater prevalence of post-traumatic stress disorder and depression in deployed Canadian armed forces personnel at risk for moral injury. *Acta Psychiatrica Scandinavica*, 137(4), 342-354. doi:10.1111/acps.12866
- Nilsson, S., Hyllengren, P., Ohlsson, A., Kallenberg, K., Waaler, G., Larsson, G., . . . Ledarskapscentrum. (2015). Leadership and moral stress: Individual reaction patterns among first responders in acute situations that involve moral stressors. *Journal of Trauma & Treatment*, 4, 261.
- Norman, S. B., Wilkins, K. C., Myers, U. S., & Allard, C. B. (2014). Trauma informed guilt reduction therapy with combat veterans. *Cognitive and Behavioral Practice*, 21(1), 78-88. doi:10.1016/j.cbpra.2013.08.001
- Orvis, K. (2019). Department of Defense (DoD) Quarterly Suicide Report (QSR) 1st Quarter, CY 2019. Department of Defense. Retrieved from [https://www.dspo.mil/Portals/113/Documents/QSR\\_CY2019\\_Q1.pdf](https://www.dspo.mil/Portals/113/Documents/QSR_CY2019_Q1.pdf)
- Osman, A., Bagge, C. L., Gutierrez, P. M., Konick, L. C., Kopper, B. A., & Barrios, F. X. (2001). The suicidal behaviors questionnaire-revised (SBQ-R): Validation with clinical and nonclinical samples. *Assessment*, 8(4), 443-454. <https://doi.org/10.1177/107319110100800409>
- Park, C. L. (2010). Making sense of the meaning literature: An integrative review of meaning making and its effects on adjustment to stressful life events. *Psychological Bulletin*, 136(2), 257-301. doi:10.1037/a0018301
- Park, C. L., & Folkman, S. (1997). Meaning in the Context of Stress and Coping. *Review of General Psychology*, 30, 115-144. <http://dx.doi.org/10.1037/1089-2680.1.2.115>

- Pedersen, E. R., & Kurz, J. (2016). Using facebook for health-related research study recruitment and program delivery. *Current Opinion in Psychology*, 9, 38-43.  
doi:10.1016/j.copsyc.2015.09.011
- Peng , K. , & Nisbett , R. E. ( 1999 ). Culture, dialectics, and reasoning about contradiction .  
*American Psychologist* , 54 , 741 – 754 .
- Poulin, M. J., & Silver, R. C. (2019). When are assumptions shaken? A prospective, longitudinal investigation of negative life events and worldviews in a national sample. *Journal of Research in Personality*, 83, 103866. doi:10.1016/j.jrp.2019.103866
- Purcell, N., Burkman, K., Keyser, J., Fucella, P., & Maguen, S. (2018). Healing from moral injury: A qualitative evaluation of the impact of killing treatment for combat veterans. *Journal of Aggression, Maltreatment & Trauma*, 27(6), 645-673.  
doi:10.1080/10926771.2018.1463582
- Purcell, N., Koenig, C. J., Bosch, J., & Maguen, S. (2016). Veterans' perspectives on the psychosocial impact of killing in war. *The Counseling Psychologist*, 44(7), 1062-1099.  
doi:10.1177/0011000016666156
- Rai, T. S., & Fiske, A. P. (2011). Moral psychology is relationship regulation: Moral motives for unity, hierarchy, equality, and proportionality. *Psychological Review*, 118(1), 57-75.  
doi:10.1037/a0021867
- Scarre, G. (2009). The 'banality of good'? *Journal of Moral Philosophy*, 6(4), 499-519.  
doi:10.1163/174046809X12464327133212
- Schorr, Y., Stein, N. R., Maguen, S., Barnes, J. B., Bosch, J., & Litz, B. T. (2018). Sources of moral injury among war veterans: A qualitative evaluation. *Journal of Clinical Psychology*, 74(12), 2203-2218. doi:10.1002/jclp.22660

- Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social cognitive theory. *Contemporary Educational Psychology, 60*, 101832.
- Shane, L. (2017). PTSD disability claims by vets tripled in the last decade. Military Times. Retrieved from <https://www.militarytimes.com/news/pentagon-congress/2017/07/25/ptsd-disability-claims-by-vets-tripled-in-the-last-decade/>
- Shatz, I. (2017). Fast, free, and targeted: Reddit as a source for recruiting participants online. *Social Science Computer Review, 35*(4), 537-549.  
<https://doi:10.1177/0894439316650163>
- Shay, J. (2012). Moral injury. *Intertexts, 16*(1), 57-66. doi:10.1353/itx.2012.0000
- Shay, J. (2014). Moral injury. *Psychoanalytic Psychology, 31*(2), 182-191.  
doi:10.1037/a0036090
- Shweder, R.A. (1990). "In Defense of Moral Realism: Reply to Gabennesch." *Child Development, 61*, no 6. pp 2060-2067.
- Smigelsky, M. A., Malott, J. D., Veazey Morris, K., Berlin, K. S., & Neimeyer, R. A. (2019). Latent profile analysis exploring potential moral injury and posttraumatic stress disorder among military veterans. *Journal of clinical psychology, 75*(3), 499-519.
- Smith, E. R., Duax, J. M., & Rauch, S. A. M. (2013). Perceived perpetration during traumatic events: Clinical suggestions from experts in prolonged exposure therapy. *Cognitive and Behavioral Practice, 20*(4), 461-470. doi:10.1016/j.cbpra.2012.12.002
- Steenkamp, M. M., Nash, W. P., Lebowitz, L., & Litz, B. T. (2013). How best to treat deployment-related guilt and shame: Commentary on smith, duax, and rauch (2013). *Cognitive and Behavioral Practice, 20*(4), 471-475. doi:10.1016/j.cbpra.2013.05.002
- Steger, M. F. (2012). Experiencing meaning in life – Optimal functioning at the nexus of well-being, psychopathology, and spirituality. In P. T. P. Wong (Ed.), *The human quest for*

- meaning: Theories, research, and applications (2nd ed.) (pp. 165–184). New York, NY: Routledge.
- Stein, N. R., Mills, M. A., Arditte, K., Mendoza, C., Borah, A. M., Resick, P. A., . . . STRONG STAR Consortium. (2012). A scheme for categorizing traumatic military events. *Behavior Modification*, 36(6), 787-807. doi:10.1177/0145445512446945
- Stets, J. E., & Burke, P. J. (2000). Identity theory and social identity theory. *Social psychology quarterly*, 224-237.
- Stryker, S. (1980) Symbolic interactionism: A social structural version. Menlo Park, CA: Benjamin Cummins.
- Stryker, S., & Burke, P. J. (2000). The past, present, and future of an identity theory. *Social Psychology Quarterly*, 63(4), 284-297. doi:10.2307/2695840
- Sullivan, W. P., & Starnino, V. R. (2019). "staring into the abyss": Veterans' accounts of moral injuries and spiritual challenges. *Mental Health, Religion & Culture*, 22(1), 25-40. doi:10.1080/13674676.2019.1578952
- Sun, D., Phillips, R. D., Mulready, H. L., Zablonki, S. T., Turner, J. A., Turner, M. D., . . . Morey, R. A. (2019). Resting-state brain fluctuation and functional connectivity dissociate moral injury from posttraumatic stress disorder. *Depression and Anxiety*, 36(5), 442-452. doi:10.1002/da.22883
- Tangney, J. P., Stuewig, J., & Mashek, D. J. (2007). Moral emotions and moral behavior. *Annu. Rev. Psychol.*, 58, 345-372.
- Taylor, J. K., Clerkin, R. M., Ngaruiya, K. M., & Velez, A. K. (2015). An exploratory study of public service motivation and the Institutional–Occupational model of the military. *Armed Forces & Society*, 41(1), 142-162. doi:10.1177/0095327X13489119

- Thomas, J. L., Wilk, J. E., Riviere, L. A., McGurk, D., Castro, C. A., & Hoge, C. W. (2010). Prevalence of mental health problems and functional impairment among active component and National Guard soldiers 3 and 12 months following combat in Iraq. *Archives of general psychiatry*, *67*(6), 614-623.
- Tignor, S. M., & Colvin, C. R. (2017). The interpersonal adaptiveness of dispositional guilt and shame: A meta-analytic investigation. *Journal of personality*, *85*(3), 341-363.
- Tybur, J. M., Lieberman, D., Kurzban, R., & DeScioli, P. (2013). Disgust: evolved function and structure. *Psychological review*, *120*(1), 65.
- United States Department of Veteran Affairs, Veterans Benefits Administration. (2018). Annual Benefits Report FY 2018: Compensation, service-connected disability or death benefits. Retrieved from <https://www.benefits.va.gov/REPORTS/abr/docs/2018-compensation.pdf>
- United States Marine Corps. (n.d). Law of war/introduction to rules of engagement B130936 student handbout. Retrieved from <https://www.trngcmd.marines.mil/Portals/207/Docs/TBS/B130936%20Law%20of%20War%20and%20Rules%20Of%20Engagement.pdf>
- Vaisey, S., & Miles, A. (2014). Tools from moral psychology for measuring personal moral culture. *Theory and Society*, *43*(3/4), 311-332. doi:10.1007/s11186-014-9221-8
- van Bruggen, V., ten Klooster, P. M., van der Aa, N., Smith, A. J. M., Westerhof, G. J., & Glas, G. (2018). Structural validity of the world assumption scale. *Journal of Traumatic Stress*, *31*(6), 816-825. <https://doi:10.1002/jts.22348>
- Vargas, A.F., Hanson, T., Kraus, D., Drescher, K., & Foy, D. (2013). Moral injury themes in combat veterans' narrative responses from the national vietnam veterans' readjustment study. *Traumatology*, *19*(3), 243-250. doi:10.1177/1534765613476099

- Vieten, C., Scammell, S., Pilato, R., Ammondson, I., Pargament, K. I., & Lukoff, D. (2013). Spiritual and religious competencies for psychologists. *Psychology of Religion and Spirituality*, 5(3), 129-144. doi:10.1037/a0032699
- Vogt, D., Smith, B. N., King, D. W., & King, L. A. (2012). Manual for the Deployment Risk and Resilience Inventory-2 (DRRI-2): A Collection of Measures for Studying Deployment-Related Experiences of Military Veterans. National Center for PTSD.  
<http://www.ptsd.va.gov/professional/assessment/deployment/index.asp>
- Vogt, D. S., Smith, B. N., King, L. A., King, D. W., Knight, J. A., & Vasterling, J. J. (2013). Deployment Risk and Resilience Inventory-2 (DRRI-2): An updated tool for assessing psychosocial risk and resilience factors among service members and Veterans (PDF). *Journal of Traumatic Stress*, 26, 710-717. [https://doi: 10.1002.jts.21868](https://doi:10.1002.jts.21868) PTSDpubs ID: 87988
- Ward, C., Ng Tseung-Wong, C., Szabo, A., Qumseya, T., & Bhowon, U. (2018). Hybrid and alternating identity styles as strategies for managing multicultural identities. *Journal of Cross-Cultural Psychology*, 49(9), 1402-1439. <https://doi:10.1177/0022022118782641>
- Williams, H. J., Chandler, N., & Robinson, E. (2018). Trends in the draw of americans to foreign terrorist organizations from 9/11 to today. Santa Monica, California: RAND Corporation.
- Windsor, L. (2018). The language of radicalization: Female Internet recruitment to participation in ISIS activities. *Terrorism and Political Violence*, 1-33.
- Wisco, B. E., Marx, B. P., May, C. L., Martini, B., Krystal, J. H., Southwick, S. M., & Pietrzak, R. H. (2017). Moral injury in U.S. combat veterans: Results from the national health and resilience in veterans study. *Depression and Anxiety*, 34(4), 340-347.  
doi:10.1002/da.22614

- Wood, D. (2016). *What have we done: The moral injury of our longest wars*. New York, NY: Little, Brown, and Company Hachette Book Group, Inc.
- Woodruff, T. D. (2017). Who should the military recruit? the effects of institutional, occupational, and self-enhancement enlistment motives on soldier identification and behavior. *Armed Forces & Society*, 43(4), 579-607. doi:10.1177/0095327X17695360
- Woodruff, T., Kelty, R., & Segal, D. R. (2006). Propensity to serve and motivation to enlist among american combat soldiers. *Armed Forces & Society*, 32(3), 353-366. doi:10.1177/0095327X05283040
- World Health Organization. (2004). *ICD-10 : international statistical classification of diseases and related health problems*. Geneva : World Health Organization
- Wortmann, J. H., Eisen, E., Hundert, C., Jordan, A. H., Smith, M. W., Nash, W. P., & Litz, B. T. (2017). Spiritual features of war-related moral injury: A primer for clinicians. *Spirituality in Clinical Practice*, 4(4), 249.
- Yampolsky, M. A., Amiot, C. E., & de la Sablonnière, R. (2016). The multicultural identity integration scale (MULTIIS): Developing a comprehensive measure for configuring one's multiple cultural identities within the self. *Cultural Diversity & Ethnic Minority Psychology*, 22(2), 166.
- Yeterian, J. D., Berke, D. S., Carney, J. R., McIntyre-Smith, A., St. Cyr, K., King, L., . . . Members of the Moral Injury Outcomes Project Consortium. (2019). Defining and measuring moral injury: Rationale, design, and preliminary findings from the moral injury outcome scale consortium. *Journal of Traumatic Stress*, 32(3), 363-372. doi:10.1002/jts.22380
- Yoo, J. C. (2011). Assassination or targeted killings after 9/11. *New York Law School Law Review*, 56(1), 57.

Zimbardo, P. G. (1969). The human choice: Individuation, reason, and order versus deindividuation, impulse, and chaos. In Nebraska symposium on motivation. University of Nebraska press.

Zust, J. (n.d.). The two-mirrors of moral injury: A concept for interpreting the effects of moral injury. CGSC Foundation.

## APPENDIX A: Motivations to Enlist Questionnaire

Which of the following best explains your motivations for enlisting in the military? Select a value between 0 (no influence at all) and 10 (extremely influential) to indicate the degree that a particular motivation was reflective of influence this had on your decision to enter the military.

- 1) long-standing interest in the military
- 2) personal development
- 3) professional development/job training,
- 4) college/GI Bill Benefits
- 5) unclear life direction and lack of alternate goals
- 6) a planned stepping stone while I develop other career goals
- 7) a way to flee unpleasant life circumstances/escape
- 8) I had other goals, but those other options did not materialize despite my efforts and military felt like the only option
- 9) desire to serve/patriotism/sense of duty
- 10) desire to serve a grander purpose beyond oneself
- 11) travel

\*Items #1, 2, 3, 9, and 10 were conceptualized as intrinsic motivations and #4-8 and 11 were conceptualized as extrinsic motivations.