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Moral injury and moral repair in war veterans: A preliminary model and intervention strategy

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ABSTRACT

Throughout history, warriors have been confronted with moral and ethical challenges and modern unconventional and guerilla wars amplify these challenges. Potentially morally injurious events, such as perpetrating, failing to prevent, or bearing witness to acts that transgress deeply held moral beliefs and expectations may be deleterious in the long-term, emotionally, psychologically, behaviorally, spiritually, and socially (what we label as *moral injury*). Although there has been some research on the consequences of unnecessary acts of violence in war zones, the lasting impact of morally injurious experience in war remains chiefly unaddressed. To stimulate a critical examination of moral injury, we review the available literature, define terms, and offer a working conceptual framework and a set of intervention strategies designed to repair moral injury.

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1. Introduction

Service members are confronted with numerous moral and ethical challenges in war. They may act in ways that transgress deeply held moral beliefs or they may experience conflict about the unethical behaviors of others. Warriors may also bear witness to intense human suffering and cruelty that shakes their core beliefs about humanity. What happens to service members who are unable to contextualize or justify their actions or the actions of others and are unable to successfully accommodate various morally challenging experiences into their knowledge about themselves and the world? Are they at risk for developing long-lasting psycho-bio-social impairment? Is there a distinct syndrome of psychological, biological, behavioral, and relational problems that arises from serious and/or sustained morally injurious experiences? Or, do existing disorders, such as posttraumatic stress disorder (PTSD), sufficiently explain the sequelae of what we term moral injury? And, can existing psychological treatments for combat and operational PTSD be effective or impactful?

In the first iteration of the PTSD construct (DSM-III) "guilt about surviving while others have not *or about behavior required for survival* (emphasis added)" was a symptom of PTSD. This was chiefly the result of the predominance of thinking about the phenomenology of Vietnam veterans and clinical care experience with veterans of war. Consequently, prior to the DSM-III-R, clinicians in VA settings arguably tackled moral conflict and guilt (e.g., Friedman, 1981). Since then, there has been very little attention paid to the lasting impact of moral conflict-colored psychological trauma among war veterans in the clinical science community. A possible reason for the scant attention is that clinicians and researchers who work with service members and veterans focus most of their attention on the impact of life-threat trauma, failing to pay sufficient attention to the impact of events with moral and ethical implications; events that provoke shame and guilt may not be assessed or targeted sufficiently. This explanation seems plausible given the emphasis on fear memories in evidence-based models of treatment (e.g., Foa, Steketee, & Rothbaum, 1989).

It is also possible that some clinicians believe that addressing ethical conflicts and moral violations is outside the realm of their expertise, preferring to recommend religious counseling instead. Care-providers may also not hear about moral injury because service members' or veterans' shame and concern about adverse impact or repercussions (e.g., being shunned, rejected, misunderstood) prevent disclosure. Mental health professionals may contribute to this; they may unknowingly provide non-verbal messages that various acts of omission or commission in war are too threatening or abhorrent to hear. Some may believe that treatment would excuse illegal or immoral behavior in some way. Others may veer from the topic to avoid the very thorny question about whether perpetration of violence should lead to diagnosable and potentially compensable PTSD.

Whatever the reasons for the scant attention paid to moral and ethical conflicts (after DSM-III), we argue that serious exploration is indicated because, in our experience, service members and veterans can suffer long-term scars that are not well captured by the current conceptualizations of PTSD or other adjustment difficulties. We are not arguing for a new diagnostic category, per se, nor do we want to medicalize or pathologize the moral and ethical distress that service members and veterans may experience. However, we believe that the clinical and research dialogue is very limited at present because questions about moral injury are not being addressed. In addition, clinicians who observe moral injury and are motivated to target these problems are at a loss because existing evidence-based strategies fail to provide sufficient guidance. Consequently, our goal is two-fold: We want to stimulate discourse and empirical research and, because we are sorely aware of the clinical care vacuum and need (especially in the Department of Defense), we offer specific treatment recommendations based on our conceptual model and a pilot study we are conducting in the Marine Corps.

Below, we first describe the potential morally injurious experiences in war, using the current wars in Iraq and Afghanistan as examples. Second, we review and summarize the research pertaining to events that have the potential to be morally injurious. Third, we discuss why existing conceptualizations of PTSD may not fully capture the different aspects of moral injury. Finally, we propose a working conceptual model, a set of assumptions that guide our treatment approach, and details about the treatment model.

There are three sets of important questions we will not be covering in detail in this article: (1) What military training, deployment length, battlefield context, leadership, rules of engagement, group processes, and personality factors moderate and mediate war-zone transgression?; (2) What aspects of military training (primary and secondary prevention strategies) help service members assimilate and accommodate various moral and ethical challenges, roles, and experiences?; and (3) What are the learning history, personality, religious beliefs, and social and cultural variables that moderate and mediate moral injury afterward? These complex research questions require an interdisciplinary approach (e.g., military, biological, philosophical, sociological and social psychological, legal, religious, mental health perspectives), and our intention is to offer a basic framework that can be used as a point of departure for future theory-building and research.

2. What might be potentially morally injurious in war?

Service members deployed to Iraq or Afghanistan have been exposed to high levels of violence and its aftermath. In 2003, 52% of soldiers and Marines surveyed reported shooting or directing fire at the enemy, and 32% reported being directly responsible for the death of an enemy combatant (Hoge et al., 2004). Additionally, 65% of those surveyed reported seeing dead bodies or human remains, 31% reported handling or uncovering human remains, and 60% reported having seen ill/wounded women and children who they were unable to help. The rates of exposure to violence and its aftermath remained high in a survey of soldiers in 2007 (Mental Health Advisory Team [MHAT-V], 2008).

Violence and killing are prescribed in war and encounters with the grotesque aftermath of battle are timeless and expected aspects of a warrior's experience. Still, the actions, sights, smells, and images of violence and its aftermath may produce considerable lasting distress and inner turmoil, comparable to consequences of direct life threat.

Morally questionable or ethically ambiguous situations can arise for service members in any type of warfare. However, counter-insurgency, guerilla warfare, especially in urban contexts poses greater risks. These types of wars involve unconventional features (e.g., an unmarked enemy, civilian threats, improvised explosive devices) that produce greater uncertainty, greater danger for non-combat troops, and generally greater risk of harm among non-combatants. Not surprisingly, a select field survey in theatre revealed that 27% of soldiers faced ethical situations during deployment in which they did not know how to respond (MHAT-V, 2008). Guerilla wars also expose service members to unpredicted and non-contingent violence and the aftermath of violence; experiences that fail to conform to schematic beliefs about warfare and roles for service members. Research has shown that for those who are unaccustomed or unprepared, exposure to human remains is one of the most consistent predictors of long-term distress (e.g., McCarroll, Ursano, & Fullerton, 1995).

Unconventional features of war may make it more difficult for service members to decide on the most prudent way to react towards non-combatants (or potential combatants) despite strong battlefield ethics training and the rules of engagement. For example, in 2003, 20% of soldiers and Marines surveyed endorsed responsibility for the death of a non-combatant (Hoge, et al., 2004), arguably due to the ambiguity of the enemy. Furthermore, 45% of the soldiers and Marines assessed with a field survey in Iraq in 2006 felt that non-combatants should be

treated with dignity and respect, and 17% of soldiers and Marines surveyed believed that non-combatants should be treated as insurgents (Mental Health Advisory Team [MHAT-IV], 2006). Also, using a similar methodology, in 2007, 31% indicated they had insulted or cursed at civilians, 5% indicated mistreating civilians, and 11% reported damaging property unnecessarily (MHAT-V, 2008).

Further heightening the intensity of these challenges is the increased demands on current service members (and their families), such as longer and more frequent deployments. The cumulative anger and frustration about losses, sacrifices, and adversities may impact ethical decision making in some service members. For example, deployment length has been found to be associated with an increase in unethical behaviors on the battlefield within the first ten months of deployment (MHAT-V, 2008).

It is important to appreciate that the military culture fosters an intensely moral and ethical code of conduct and, in times of war, being violent and killing is normal, and bearing witness to violence and killing is, to a degree, prepared for and expected. Nevertheless, individual service members and units face unanticipated moral choices and demands and even prescribed acts of killing or violence may have a delayed but lasting psychosocial–spiritual impact (e.g., guilt and shame). For example, it makes sense that most service members are able to assimilate most of what they do and see in war because of training and preparation, the warrior culture, their role, the exigencies of various missions, rules of engagement and other context demands, the messages and behavior of peers and leaders, and the acceptance (and recognition of sacrifices) by families and the culture at large. However, once redeployed and separated from the military culture and context (e.g., with family or after retirement), some service members may have difficulty accommodating various morally conflicting experiences.

To summarize, the current wars may be creating an additional risk for exposure to morally questionable or ethically ambiguous situations. Many service members may mistakenly take the life of a civilian they believed to be an insurgent, be directly responsible for the death of enemy combatants, unexpectedly see dead bodies or human remains, or see ill/wounded women and children who they are unable to help. We are doing a disservice to our service members and veterans if we fail to conceptualize and address the lasting psychological, biological, spiritual, behavioral, and social impact of perpetrating, failing to prevent, or bearing witness to acts that transgress deeply held moral beliefs and expectations, that is, moral injury.

3. Research on military atrocities and killing

Although moral injury, per se, has not been systematically studied, there has been some research on acts of perpetration such as atrocities (i.e., unnecessary, cruel, and abusive harm to others or lethal violence) and killing. Several researchers have demonstrated that self-reports of atrocities are related to chronic PTSD in Vietnam veterans (e.g., Beckham, Feldman, & Kirby, 1998; King, King, Gudanowski, & Vreven, 1995; Yehuda, Southwick, & Giller, 1992). Moreover, the association between reports of atrocities and PTSD is considerably stronger than global reports of combat exposure and PTSD, in terms of very chronic PTSD among Vietnam veterans. Furthermore, researchers have shown that exposure to atrocities increases the risk for a variety of dysfunctional behaviors and problems, namely depression (Yehuda et al.), general indices of psychiatric distress (Fontana, et al., 1992) and suicidal behavior (Hiley-Young, Blake, Abueg, Rozynko, & Gusman, 1995).

Compared to witnessing atrocities, perpetration appears to be more problematic (Breslau & Davis, 1987; Fontana, Rosenheck, & Brett, 1992; Hiley-Young et al., 1995; Laufer, Gallops, & Frey-Wouters, 1984). Still, some research has suggested that witnessing atrocities in theatre is also associated with PTSD (e.g., Fontana et al.; Laufer, Brett, & Gallops, 1985). Failing to prevent atrocities and learning about atrocities might affect outcome as well; however, researchers have yet to examine the unique impact of these types of potentially injurious experiences.

Exposure to atrocities does not appear to be associated with hyperarousal problems, which makes sense conceptually because arousal difficulties arguably stem from high sustained fear due to life-threat. When researchers have broken PTSD symptoms into separate clusters, they generally have found that exposure to atrocities was only related to the reexperiencing (Beckham et al., 1998; Fontana et al., 1992; Henning & Frueh, 1997; Yehuda et al., 1992) and avoidance (Henning & Frueh; Laufer et al., 1985) clusters. Unfortunately, studies to date have not disaggregated cluster C into its conceptually distinct sub-components, namely, strategic avoidance (C1 and C2) and emotional numbing (C4–C6). Overall, the sub-cluster analyses suggest that morally injurious experiences are recalled intrusively and a combination of avoidance and emotional numbing may also be a consequence.

Other studies have also shown that prescribed killing and injuring others are associated with PTSD (Fontana & Rosenheck, 1999; MacNair, 2002). Killing, regardless of role, is a better predictor of chronic PTSD symptoms than other indices of combat, mirroring some of the results on atrocities. For example, MacNair found that Vietnam veterans who killed and experienced light combat had more PTSD symptoms than those who did not kill and experienced heavy combat. Among Vietnam veterans, killing was a significant predictor of PTSD symptoms, dissociation, functional impairment, and violent behaviors, after controlling for general combat exposure (Maguen, Metzler, et al., in press). Also, after controlling for combat exposure, taking another life was a significant predictor of PTSD symptoms, alcohol abuse, anger, and relationship problems among Iraq War veterans (Maguen, Lucenko, et al., in press).

Role and choice appear to be related to outcome as well. For example, Fontana et al. (1992) found that more active roles related to killing (i.e., being an agent of killing and failing to prevent killing) were more strongly related to PTSD, other psychiatric symptoms, and suicide than passive roles. Furthermore, active potentially morally injurious roles had significantly smaller associations with hyperarousal than being the target of life-threat.

Although reports of perpetration on check-lists covary with post-war symptomatology, the subjective responses to those acts are likely to be the more critical components in the etiological chain—in other words, the meaning that is attributed to actions and various attendant observations shapes the long-term response. Supporting this contention, Fontana et al. (1992) found that retrospective accounts of subjective distress related to acts of violence accounted for more variance in outcome. Likewise, Laufer et al. (1985) found that feelings of demoralization and guilt had much stronger correlations with PTSD than reports of combat exposure and participation in abusive violence. These findings are consistent with other research that underscores the importance of evaluating subjective responses to combat and operational stress (King et al., 1995).

Further underscoring the importance of subjective reaction to combat roles, Henning and Frueh (1997) found that combat-related guilt (chiefly indexed to various acts of omission or commission) was associated with reexperiencing and avoidance symptoms and a general measure of PTSD symptom severity. They also found that combat guilt accounted for 30% of the unique variance in a composite of reexperiencing and avoidance symptoms and 8% of the unique variance in overall PTSD severity. Moreover, after controlling for combat-related guilt, combat exposure and trait-related guilt were not related to outcome. Based on these findings, the authors concluded that combat guilt is largely responsible for reexperiencing and avoidance symptoms, but not arousal symptoms.

Marx et al. (submitted for publication) performed two path analyses examining the relationships between atrocity exposure,

guilt, PTSD, and major depressive disorder (MDD) with data from 1248 male Vietnam combat veterans with and without PTSD from a VA Cooperative Study. The guilt measure consisted of a 12-item subscale from the Laufer–Parson Inventory (Laufer, Yager, Frey-Wouters, & Donnellan, 1981) that addressed acts of commission and omission. Results indicated that guilt partially mediated the relationship between atrocity exposure and PTSD and the relationship between atrocity exposure and MDD. Another study also found that guilt partially mediated the relationship between the active participation roles (e.g., agent of killing) and loss of religious faith (Fontana & Rosenheck, 2004).

It appears that participation in atrocities and killing is chiefly implicated in reexperiencing and avoidance symptoms. Researchers have yet to fully evaluate other important outcomes, such as dysphoria and anhedonia (depression), general distress, relational and parenting difficulties, parasuicidal behavior, domestic violence, criminal behavior, and loss of spirituality and religious faith. It is also unclear whether demoralization, shame, and guilt fully or partially mediate the association between various conflictual acts and a variety of negative outcomes. The lasting psychological and social impact of witnessing unethical behaviors performed by others or witnessing intense human suffering remains insufficiently addressed. Extensive research is needed.

4. What aspects of existing theory might explain moral injury?

Service members face moral and ethical conflicts and may struggle with how to manage their lasting impact. Going forward, should we conceptualize the aftermath of these conflicts as adjustment disorder or PTSD? Or, do issues of morality deserve special attention? To help address these questions, we review the prominent theories of PTSD and gauge their applicability to our conceptualization of moral injury.

Social-cognitive theories of PTSD delineate how traumatic events clash with existing schemas that people hold about themselves and the world (Horowitz, 1976, 1986; Janoff-Bulman, 1985, 1989; McCann & Pearlman, 1990). Basic fundamental assumptions that may be altered by a traumatic event include beliefs that the world is benevolent, the world is meaningful, and the self is worthy (e.g., Epstein, 2003; Janoff-Bulman, 1989). If an individual is unable to assimilate the traumatic event with prior knowledge and assumptions, intrusions and avoidance problems ensue. Intrusions, in the form of memories and nightmares are accompanied by extreme arousal and distress, motivating the individual to avoid thoughts and memories (and situations that trigger recall) of the trauma. Although avoidance strategies may temporarily alleviate distress, they tend to interfere with accommodation of and, by extension, recovery from the traumatic experience. Furthermore, traumatic events may alter generalized self-schemas pertaining to themes of safety, trust/dependency, esteem, independence, control, and intimacy, negatively impacting the individual's functioning in his or her daily life (e.g., McCann & Pearlman).

Similar to social–cognitive theories of PTSD, we argue that moral injury involves an act of transgression that creates dissonance and conflict because it violates assumptions and beliefs about right and wrong and personal goodness. How this dissonance or conflict is reconciled is one of the key determinants of injury. If individuals are unable to assimilate or accommodate (integrate) the event within existing self- and relational-schemas, they will experience guilt, shame, and anxiety about potential dire personal consequences (e.g., ostracization). Poor integration leads to lingering psychological distress, due to frequent intrusions, and avoidance behaviors tend to thwart successful accommodation.

The social–cognitive model needs to be expanded to account for the impact of moral injury. Whereas beliefs related to self-efficacy and competency to cope with life-threatening events have been the focus of social constructivist models (e.g., Benight & Bandura, 2004), the altered beliefs about the world and the self caused by moral injury are likely to be deeper and more global. For example, an individual with moral injury may begin to view him or herself as immoral, irredeemable, and un-reparable or believe that he or she lives in an immoral world.

Moral injury may also share some of the avoidance elements as described within the two-factor theory of PTSD (e.g., Keane, Fairbank, Caddell, Zimering, & Bender, 1985), which posits that PTSD develops from an initial phase of fear acquisition through classical conditioning processes and is further maintained through instrumental avoidance behaviors. During the traumatic event, various cues become associated with "intense fear, helplessness, or horror" and acquire the capacity to evoke strong emotional responses on subsequent occasions when the traumatic event is no longer occurring. Quickly, individuals learn to avoid these cues, but the avoidance prevents natural extinction from occurring.

Moral conflict and dissonance arguably creates severe peri- or post-event emotional distress (e.g., shame and guilt), which causes motivation to avoid various cues that serve as reminders of the experience. Although functional in the short run, avoidance thwarts corrective learning experiences (e.g., learning that the world is not always an amoral place, that the person can do good things, that others still accept them), maintaining the negative psychosocial impact of moral conflict. These aspects of moral injury seem consistent with the two-factor theory of PTSD. However, the two-factor theory of PTSD is based on conceptualizing the trauma as an unconditioned fear stimulus and symptoms as conditioned responses to fear. Events associated with moral injury are not chiefly based on fear, but other affects and cognitions, such as shame. Whether these experiences can be extinguished naturally or by therapeutic means is an empirical question.

The enduring negative emotional distress related to moral injury may also be partially explained by emotional-processing theory (Foa et al., 1989; Foa & Riggs, 1993). The emotional-processing theory of trauma proposes that pre-trauma schemas, the memory of the event, and the memory of experiences prior to the event can interact and interfere with the emotional-processing of the trauma, leading to the development of chronic PTSD. Although many negative events are emotionally reexperienced, the frequency and intensity of the emotions usually decrease naturally (i.e., via extinction). Yet, if the individual does not allow himself or herself to remember and experience the emotions associated with the event, extinction and habituation are disrupted and decreases in the emotions' frequency and intensity do not occur, resulting in PTSD. The emotional consequences of moral injury (e.g., shame and guilt) are, at least, partly maintained through non-confrontation of the event and/or the meaning of the event. However, it is unlikely that a lack of extinction/habituation is the mechanism that maintains the emotional distress associated with moral injury.

The cognitive model of PTSD may also be useful in partly explaining the impact of moral injury. The cognitive model (e.g., Ehlers and Clark, 2000) posits that PTSD develops when traumatic events produce a sense of constant threat through excessively negative appraisals and data-driven processing (getting stuck in sensory details), resulting in strong perceptual priming and poor elaboration (i.e., the event is not given a complete context in time and place) and that PTSD is maintained by a series of problematic behavioral and cognitive strategies. A feature of moral injury that may be consistent with the cognitive model of PTSD is the importance of negative appraisals and attributions about the transgression that serve to create and maintain the lasting psychosocial consequences of moral injury (such as shame and dysphoria).

Some recent models of PTSD have attempted to specify vulnerabilities that explain why some develop the disorder and others do not (Elwood, Han, Olatunji, & Williams, 2009; Charuvastra & Cloitre, 2008). Vulnerabilities are specific diatheses that manifest under

conditions of stress and trauma (e.g., Bowman & Yehuda, 2004). Elwood et al. posited four cognitive vulnerabilities (based on Ehlers & Clark, 2000) related to the development and maintenance of PTSD: (1) *negative attributional style* (i.e., consistently attributing negative events to internal, stable, and global causes); (2) *rumination* (i.e., repetitively and passively thinking about negative emotions, precipitators of negative emotions, symptoms of distress, and the meaning of distress); (3) *anxiety sensitivity* (i.e., fear and anxiety about unexpected fear-related experiences); and (4) *looming maladaptive style* (i.e., biased interpretations about present and future threat). Of these, negative attributional style and rumination appear to be germane to moral injury. We discuss the role of attributions in detail later in this paper. A ruminative style may foster greater distress, withdrawal, and reinforce destructive beliefs (e.g., of being unforgiveable).

Charuvastra and Cloitre (2008) described how social bonds are a vulnerability factor for PTSD, which is highly relevant to moral injury. Social support resources, perceived or actual, are one of the most robust predictors of chronic PTSD. Although less discussed, the absence or withdrawal of supports is especially damaging. Social support before and after the morally injurious event is likely to influence the related psychosocial impact. However, compared to those suffering from PTSD, those who suffer from moral injury may be more reluctant to utilize social supports, and it is possible that they may be actually shunned in light of the moral violation. Charuvastra and Cloitre underscored how exposure to human-generated traumatic events (typically interpersonal trauma) result in more toxic impact and distress than exposure to harm alone because human-generated events represent a breakdown of social norms in addition to diminished expectations of safety. Because morally injurious events are almost always human-generated, the breakdown of the social contract is as germane. However, to date, the social bond impact of perpetration and transgression have not been addressed.

In sum, prevailing theories of posttraumatic adaptation only partially explain the development and maintenance of moral injury. This is to be expected; theories of PTSD attempt to explain the long-term phenomenology of individuals *harmed by others* (and other unpredictable, uncontrollable, and threatening circumstances) and have not considered the potential harm produced by perpetration (and moral transgressions) in traumatic contexts. Consequently, moral injury requires an alternative (but also complementary) model.

5. Basic concepts

Before further describing our concept of moral injury, it will be instructive to review some basic concepts that inform our model and intervention approach.

5.1. What are morals?

The majority of individuals have a strong moral code that they use to effectively navigate through their lives. Morals are defined as the personal and shared familial, cultural, societal, and legal rules for social behavior, either tacit or explicit. Morals are fundamental assumptions about how things should work and how one should behave in the world. For example, the implicit belief that "the world is benevolent" stems from the expectation that others will behave in a moral and just manner. Another tacit assumption is that "people get what they deserve"; thus, if someone does not act within the accepted moral code, a punishment should ensue.

Morality has been studied in the context of human development (e.g., Kohlberg, 1981), group processes, such as altruism and prosocial behavior (e.g., Eisenberg & Miller, 1987), and ethics (Miller, 2003). From an evolutionary psychology perspective, moral behaviors are functional because certain primitive drives and instincts (e.g., aggression) may be destructive to the group and the culture. This process was well articulated by Freud (1930/2005) in *Civilization and Its Discontents*. A good deal of human suffering was argued to arise from the lasting impact of punishment and withdrawal of love and support in the aftermath of various acts of transgression developmentally. The aversive learning experiences from powerful others (parents, teachers, leaders) leads to self-censure and moral comportment, as well as the expectation that others should conform to moral standards, and if they don't, they should be punished.

5.2. Are there unique emotions related to moral beliefs?

Moral emotions, both self-focused and other-focused, serve to maintain a moral code. Morality-related emotions are driven by expectations of others' responses to perceived transgression. Embarrassment may encourage adherence to broadly or locally accepted moral standards by prompting individuals to act in conciliatory ways so as to win approval or inclusion (e.g., Keltner, 1995). Positive emotions such as self-oriented pride and other-oriented gratitude also shape moral behaviors.

Most research has focused on the experience of self-oriented negative moral emotions, such as shame and guilt and how they influence moral behavior (see Tangney, Stuewig, & Mashek, 2007). Guilt is a painful and motivating cognitive and emotional experience tied to specific acts of transgression of a personal or shared moral code or expectation. Guilt, unlike shame, is associated with a decreased likelihood of participating in risky or illegal behavior and often results in the making of amends.

Shame involves global evaluations of the self (e.g., Lewis, 1971), along with behavioral tendencies to avoid and withdraw. Therefore, it results in more toxic interpersonal difficulties, such as anger and decreased empathy for others, and these experiences can, in turn, lead to devastating life changes. Generally, research has shown that shame is more damaging to emotional and mental health than guilt (see Tangney et al., 2007). Consequently, shame may be a more integral part of moral injury.

5.3. The effect of shame on social behavior and connection

Shame is fundamentally related to expected negative evaluation by valued others. It is, therefore, not surprising that individuals respond to shame with a desire to hide or withdraw. The non-verbal and verbal communication behaviors related to shame in interpersonal contexts function to inhibit interaction and communication with others (Izard, 1977; Keltner & Harker, 1998). A number of researchers suggest that shame behavior in relationships serves to reduce anger in others and elicit greater sympathy (Gilbert & McGuire, 1998; Keltner, 1995; Keltner & Harker, 1998). In this way, one who commits a transgression can minimize or avoid condemnation and rejection and elicit greater sympathy and support. However, shame due to serious acts of perpetration or acts of omission in traumatic circumstances is likely to lead to extensive withdrawal, which in turn exacerbates shame (e.g., expectations of censure and rejection are reinforced).

5.4. Self-forgiveness

A good deal of research has shown that interpersonal forgiveness, that is, forgiving *others* who have transgressed, helps people adapt and recover from various social harms. Less studied, but no less important from the vantage point of preventing wrongdoing and helping transgressors, is the process of self-forgiveness, which is a means of obviating self-condemnation and shame and a vehicle for corrective action. Hall and Fincham (2005) define self-forgiveness as "a set of motivational changes whereby one becomes decreasingly motivated to avoid stimuli associated with the offense, decreasingly motivated to retaliate against the self (e.g., punish the self, engage in self-destructive behaviors, etc.), and increasingly motivated to act benevolently toward

the self" (p. 622). Self-forgiveness conceptually entails acknowledging the event, accepting responsibility for it, experiencing the negative emotions associated with it (e.g., Hall & Fincham; Holmgren, 2002), devoting sufficient energy to heal (Fisher & Exline, 2006), and committing to living differently in the future (Enright, 1996). Hall and Fincham (2008) have shown that feelings of guilt, conciliatory behaviors, and the perception of forgiveness from others affected self-forgiveness over time.

In terms of adaptation to behaviors required in war, Witvliet, Phipps, Feldman, and Beckham (2004) found that lack of self-forgiveness was related to PTSD symptom severity in Vietnam veterans. The converse of self-forgiveness, self-condemnation, has also been shown to be associated with depression and general anxiety (Maltby, Macaskill, & Day, 2001; Mauger et al., 1992), dispositional shame, poor psychological well-being, and self-punishment (Fisher & Exline, 2006).

6. Working conceptual model

To stimulate a dialogue about moral injury, we offer the following working definition of potentially morally injurious experiences: *Perpetrating, failing to prevent, bearing witness to, or learning about acts that transgress deeply held moral beliefs and expectations.* This may entail participating in or witnessing inhumane or cruel actions, failing to prevent the immoral acts of others, as well as engaging in subtle acts or experiencing reactions that, upon reflection, transgress a moral code. We also consider bearing witness to the aftermath of violence and human carnage to be potentially morally injurious.

Moral injury requires an act of transgression that severely and abruptly contradicts an individual's personal or shared expectation about the rules or the code of conduct, either during the event or at some point afterwards (see Fig. 1). The event can be an act of wrongdoing, failing to prevent serious unethical behavior, or witnessing or learning about such an event. The individual also must be (or become) aware of the discrepancy between his or her morals and the experience (i.e., moral violation), causing dissonance and inner conflict.

In the case of a severe act of transgression, for most service members, the event is, by definition, incongruent and discrepant with fundamental beliefs and assumptions about how the world operates or how an individual or group should be treated (or at odds with military training and rules of engagement). The context and others' reactions may moderate the degree to which the event is initially dissonant or conflictual. However, we argue that many service members will eventually experience dissonance and face the task of reconciling their discomfort and expectations of social condemnation, censure, and rejection (see Higgins, 1987), if not literal punishment. If a severe and abrupt discrepancy occurs between self- and other schemas and the transgression, the psychological process of reconciling discrepant ways of seeing the self and the world creates emotional turmoil and distress, and the accommodation process can consume psychological and emotional resources (e.g., Lee, Scragg, & Turner, 2001; McCann & Pearlman, 1990). If the service members feel remorse about various behaviors, they will experience guilt; if they blame themselves because of perceived personal inadequacy and flaw, they will experience shame. Guilt responses are temporarily functional because they increase motivation to correct behavior or to find ways of correcting harmful ways of construing the experience, for example, by conferring with peers.

We posit that the type of attributions made about moral violation greatly affects outcome (cf. Weiner, 1985). If the attribution about the cause of a transgression is *global* (i.e., not context dependent), *internal* (i.e., seen as a disposition or character flaw), and *stable* (i.e., enduring; the experience of being tainted), these beliefs will cause enduring moral emotions such as shame and anxiety due to uncertainty and the expectation of being judged *eventually*. If these aversive emotional and psychological experiences lead to withdrawal (and concealment) then the service member is thwarted from corrective and repairing experience (that otherwise would temper and counter attributions and foster *self-forgiveness*) with peers, leaders, significant others, faith communities (if applicable), and the culture at large (see Fig. 1).

The more time passes, the more service members will be convinced and confident that not only their actions, but *they* are unforgiveable. In other words, service members and veterans with moral injury will fail to see a path toward renewal and reconciliation; they will fail to forgive themselves and experience self-condemnation. The behavioral, cognitive, and emotional aftermath of unreconciled severe moral conflict, withdrawal, and self-condemnation closely mirrors the reexperiencing, avoidance, and emotional numbing

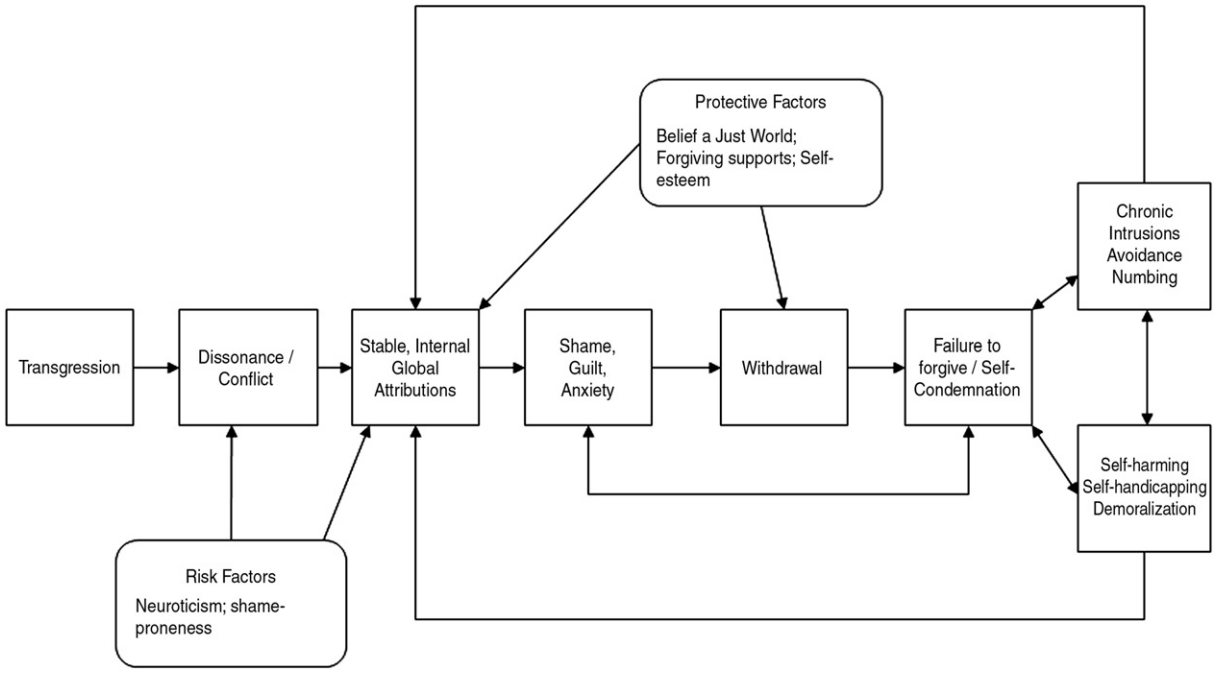

Fig. 1. Working causal framework for moral injury.

symptoms of PTSD. The psychological imperative to reconcile morally incongruent or discrepant experience (i.e., moral violation or conflict) leads to reexperiencing and other intrusive mental activity (e.g., Rachman, 1980). Arguably, intrusive (automatic and unbidden) psychological- and emotional-processing of moral violation is partly functional because it reminds the person that they need to do something about their inner conflict. If the person accommodates the experience and attributes the event in a specific (i.e., highly context [war] dependent), not stable (i.e., time-locked), and external (e.g., a result of exigencies and extraordinary demands) way, this reduces conflict and fosters moral repair; successful integration of the moral violation into an intact, although more flexible, functional belief system.

Reexperiencing may consist of the painful recall (thoughts, images) of moral violation with concurrent self-condemnation and aversive emotions (e.g., anxiety about potential social censure or condemnation, shame, dysphoria). Reexperiencing morally injurious experience is aversive because, among other things, it weakens and destabilizes self-esteem and tarnishes relational expectations (e.g., by reducing worthiness or increasing expectations of censure). Consequently, service members and veterans distance themselves and withdraw from others and they fail to avail themselves of opportunities for corrective, disconfirming interpersonal experience (e.g., unconditional love, life affirmation). Thus, expectations of being tainted by moral transgression and being unworthy of forgiveness can come full circle (this feedback loop is depicted in Fig. 1). In the worst case, service members with moral injury suffer in isolation, feeling helpless and hopeless.

Chronic collateral manifestations of moral injury may include: *self-harming behaviors*, such as poor self-care, alcohol and drug abuse, severe recklessness, and parasuicidal behavior, *self-handicapping behaviors*, such as retreating in the face of success or good feelings, and *demoralization*, which may entail confusion, bewilderment, futility, hopelessness, and self-loathing. Most damaging is the possibility of enduring changes in self and other beliefs that reflect regressive over-accommodation of moral violation, culpability, or expectations of injustice. This may occur because each reexperiencing and avoidance instance leads to new learning affecting the strength and accessibility of underlying schemas, which, over time, become ingrained and rigid and resistant to countervailing evidence.

Some vulnerability factors for PTSD applicable to moral injury were described above; however, other individual difference factors may increase the likelihood of moral injury, including shame proneness and neuroticism. Shame proneness has the most empirical support. Research has consistently linked the dispositional tendency to experience shame to decreased empathy for others, increased focus on internal distress, and increased psychopathology (see Tangney et al., 2007). Also, the tendency to experience shame has been associated with remorse, self-condemning thoughts, and lower well-being (Fisher & Exline, 2006), variables germane to moral injury.

Neuroticism (negative affectivity) has been shown to be negatively associated with self-forgiveness (e.g., Maltby et al., 2001; Ross, Hertenstein, & Wrobel, 2007). In fact, compared to openness, conscientiousness, extraversion, and agreeableness, neuroticism has the strongest relationship to self-censure (Leach & Lark, 2004; Ross, Kendall, Matters, Wrobel, & Rye, 2004).

In terms of possible protective factors, prisoners (putative transgressors) with just world beliefs are more likely to feel that their punishment is justified and are less likely to act out and cause disciplinary problems (Dalbert & Filke, 2007; Otto & Dalbert, 2005). Moreover, prisoners with just world beliefs are more likely to view their future goals as attainable (Otto & Dalbert). This finding has been replicated with young adults in assisted-living housing (Sutton & Winnard, 2007). Viewing goals as attainable and the expectation that justice is balanced (i.e., that transgressions have consequences *and* redress and repair are possible) are especially important in light of moral injury because they may increase the motivation to seek out opportunities for renewal and redemption.

Also, researchers have found that self-esteem mediates the relationship between belief in a just world and self-forgiveness (Strelan, 2007). We posit that self-esteem (i.e., expectations of self-worth and personal agency) is a protective factor against the development of moral injury; these beliefs reduce the likelihood of global causal attributions and increase motivation for corrective action.

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