Journal of Traumatic Stress
June 2019, *32,* 341–349

ISTSS International Society for Traumatic Stress Studies

Introduction to the Special Issue on Moral Injury: Conceptual Challenges, Methodological Issues, and Clinical Applications

Brett T. Litz[1,2] and Patricia K. Kerig[3]
[1]VA Boston Healthcare System, Boston, Massachusetts, USA
[2]Departments of Psychology and Psychiatry, Boston University, Boston, Massachusetts, USA
[3]Department of Psychology, University of Utah, Salt Lake City, Utah, USA

This article introduces a special issue of the *Journal of Traumatic Stress* devoted to new directions in the study of moral injury (MI), defined as transgressive harms and the outcomes of those experiences. Although a significant body of research has emerged devoted to the study of the MI construct, a number of conceptual and empirical challenges have arisen; these are summarized and discussed in the present article. In addition, this article proposes ways of overcoming these challenges in order to further research and clinical practice in the field. We then go on to introduce the content and themes of the present collection of articles in this special issue, all of which provide examples of some of the most innovative and forward-looking work on the topic and expand into new conceptual frameworks, new methods of investigation, and new populations and contexts.

The idea that people can be lastingly harmed by their own morally transgressive behavior and can suffer as a result of others' transgressions is as old as humanity and provides a predominant theme in art, religion, and literature. The struggle for redemption and efforts to repair these harms are also central to the human story. However, it is only recently that these age-old concepts have been considered as clinically relevant social, biological, and psychological problems. There has been a relatively recent surge of interest, especially among clinicians, in the construct of moral injury (MI), the term used to describe transgressive harms and the outcomes from those experiences, which was first coined by Jonathon Shay (1995) to summarize his observations of the psychic, social, and cultural struggles war veterans face as they try to regain a sense of trust after being betrayed by leaders in combat. This *Journal of Traumatic Stress* special issue on the topic of MI is a testament to the growing acceptance of the idea of MI in the trauma community.

The recent interest in MI among trauma scholars is not surprising given that the field of traumatic stress originated among clinicians who described the aftermath of the grave moral transgressions of their time. Examples include Lindemann's (1944) work after the Coconut Grove fire, Lifton and Olson's (1976) research on survivors of Hiroshima and the Buffalo Creek Flood, Shatan's (1972) ideas about a post-Vietnam syndrome, and Haley's (1974) writings about clinical issues that arise when veterans report atrocities. Moreover, underlying most traumatic contexts is the theme of injustice and the existential and relational impact of suffering at the hands of others' moral failings. What is relatively new in the secular clinical and academic literatures, however, is consideration of the humanity of those who commit transgressions, appreciation of the psychic impact of those experiences, and the search for effective ways of helping. Nearly all the discourse about the potential harms from perpetrating moral transgressions has been among clinicians and scholars trying to understand why war trauma is so damaging for combatants and so difficult to redress (Litz et al., 2009; Maguen et al., 2009, 2011; Singer, 2004). Fewer professionals outside the military and veteran arenas have pondered the implications of the idea that harming others or being the agent of another's trauma can be injurious, although such considerations have begun to be applied to different contexts (e.g., McNair, 2002) and developmental periods (e.g., Kerig et al., 2013; Wainryb, Brehl, & Matwin, 2005). In turn, ideas about how to repair the universe of moral injuries have received less attention and resources in both the scientific and clinical-care contexts. In the wider traumatic stress community, the challenge for clinicians is to open our hearts to the suffering of those who have perpetrated trauma and thus have harmed the victims, who are our raison d'être.

The international recognition of MI across academic disciplines and among journalists and clinicians is welcome and holds the promise of increasing research funding, helping people in need, and enhancing public awareness and compassion for

This effort was supported in part by a grant to the first author from Rehabilitation Research and Development, VA Office of Research and Development (RX002135).

Correspondence concerning this article should be addressed to Brett T. Litz, VA Boston Healthcare System, 150 South Huntington Ave (151MAV), Boston, MA 02130, E-mail: litzb@bu.edu.

DOI: 10.1002/jts.22405

individuals who may be suffering from social exclusion, self-stigma, and distrust. Unfortunately, however, acceptance of the idea of MI has outpaced scientific knowledge, and, in some contexts, the concept of MI has become reified without empirical validation or academic consensus. This is particularly problematic because there are currently widely varying uses of the term without clear agreement about what MI is and is not, in addition to imprecise operationalization of the terminology used in published empirical studies as well as the lack of a gold standard of measurement. As a result, existing empirical explorations have struggled to demonstrate replicability and generalizability. Consequently, we are at a crossroads; our challenge is to bring clinical science methods to bear to the study of the moral dimensions of psychic harm and to delineate the unique outcomes associated with moral transgressions, thereby addressing issues that have historically been the purview of religion, anthropology, sociology, philosophy, and social psychology. With respect to the clinical context, 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). Such concept validity would require evidence of an MI syndrome (a collection of symptoms and problems that reliably cohere) that is measurable and targetable via change agents that are tied conceptually to known etiological and maintaining factors. We should also critically appraise and revise existing theory to accommodate research findings and be circumspect about studies with limited internal and external validity. We have a lot of work ahead of us, but if we combine compassion, an appreciation of the universal human risk for these types of harms, and ecologically valid research methods, these efforts will bear fruit. To advance research and to set the stage for the papers in this special issue, we herein summarize some of the issues and challenges for the field.

Challenges to the Conceptualization and Study of Moral Injury

Terminology: Events Versus Outcomes

Moral injury is a stressor-linked problem. Like PTSD, exposure to a moral transgression is a necessary but not sufficient determinant of outcome. As a result, events themselves should be considered, as well as labeled, as potentially morally injurious events (PMIEs). As is the case with PTSD, events shift to moral injuries after evidence of the lasting impact of those experiences is obtained. The mislabeling of events as "moral injuries" muddies the waters and conflates exposure and outcome (Frankfurt & Frazier, 2016). Unlike the *Diagnostic and Statistical Manual of Mental Disorders* Criterion A for the diagnosis of PTSD, there are no consensus criteria for the necessary elements of PMIEs. With respect to outcomes, it remains uncertain whether there should be specific gatekeeping MI exposure criteria, analogous to Criterion A, or whether a purely symptom-focused approach is valid.

Litz et al. (2009) offered a definition of the types of experiences that may be morally injurious, namely events in which a person perpetrates, fails to prevent, bears witness to, or learns about acts that transgress deeply held moral beliefs and expectations. Farnsworth, Drescher, Evans, and Walser (2017) offered a refinement to this definition by suggesting that events can only be potentially morally injurious if they occur "in a high-stakes environment" (p. 392), echoing Shay's (2014) sentiments about leadership betrayal in battle. Farnsworth and colleagues (2017) further state that an event can be injurious if "an individual perceives that an important moral value has been violated by the actions of self or others" (p. 392). These are good starts but, to date, attempts to describe the necessary features of high-magnitude moral stressors have been mostly limited to consideration of the experiences of U.S. military personnel exposed to war zone demands and combat.

There is a consensus in the field that there are two broad types of PMIEs and that these types of moral harms are applicable to any human endeavor or context: These are moral transgressions that entail people doing or failing to do things (acts of commission and omission, respectively) and those that involve being exposed directly or indirectly to others' transgressions (Currier et al., 2017; Jordan, Eisen, Bolton, Nash, & Litz, 2017; Nash et al., 2013). The former may entail deliberate or unwitting acts. Examples of unwitting acts are chance events, such as opening a car door at the wrong time and causing injury to a child riding a bike along the road, or mistakes, such as driving after having a drink too many and causing an accident that results in someone's death. Exposure to others' transgressions may entail direct victimization experiences, high-stakes betrayals, or bearing witness to grave inhumanity. Not surprisingly, we might expect that outcomes will be specific to these starkly different contexts. Chiefly, the hypotheses would be that self-related events would be associated with guilt, shame, and internalizing symptoms, whereas other-related events would be associated with anger, resentment, and externalizing symptoms. In effect, these may constitute two latent subconstructs within the MI construct, and measures may need to disaggregate the two.

What is Injured?

Litz and colleagues (2009) posited that several core features of the PTSD syndrome would describe the lasting pathological impact of transgressive war zone experiences. Specifically, the authors postulated that service members or veterans suffering from MI would intrusively reexperience the transgressive experiences; be motivated to avoid related thoughts and feelings and triggering contexts; and suffer from the triad of emotional numbing, namely disinterest, detachment, and restricted range of affect. Moral injury also could entail subtle and non-subtle forms of self-harm and self-handicapping common in the aftermath of interpersonal trauma and PTSD, such as poor self-care, alcohol and drug abuse, recklessness, parasuicidal behavior, and low motivation to seek advancement or social connection. Litz and colleagues suggested additionally that MI

might result in enduring changes in self-schema or identity, which may include confusion, bewilderment, a sense of futility, demoralization, hopelessness, and self-loathing. Several authors have offered expansions or refinements of some of these original ideas about how MI might constitute a clinical outcome (Currier et al., 2017; Jinkerson, 2016).

Although they are promising, these efforts to-date have been hampered by at least three limitations: (a) the exclusive focus on the military and war zone contexts; (b) gaps in supportive evidence, given that many of the studies validating MI have limitations associated with internal and external validity; and, relatedly; (c) the paucity of qualitative evaluations of the lived experience of individuals exposed to moral harms. Instead, most qualitative studies or questionnaire development efforts rely on putative experts with unspecified experience or expertise. Given the substantial variance in how clinicians and researchers define and understand the MI construct, it seems a safe inference that expert opinion is widely varying and uncertain. Consequently, the lack of qualitative data on how people suffer after exposure to transgressive acts represents a particularly significant knowledge gap in the field. It is also essential, especially for clinicians, to understand what the faith traditions and faith communities say about the causes and consequences of moral transgression and resources for healing and repair (Drescher, Nieuwsma, & Swales, 2013; Drescher et al 2018; Harris, Usset, & Cheng, 2018; Wortmann et al., 2017).

The Biology of Morality and Moral Emotions

An excellent secular source of clues about what is harmed in MI comes from studies of moral emotions and morality in the fields of behavioral biology, behavioral neuroscience, and evolutionary psychology. Of particular value is the highly germane, comprehensive, and informative book *Behave: The Biology of Humans at Our Best and Worst* (Sapolsky, 2017) and the excellent articles about moral emotions by Haidt (2003) and Tangney, Steuwig, and Mashek (2007).

From the secular biopsychosocial vantage point, human hunter-gatherers developed a neural architecture that includes a specialized kin-recognition system that serves to regulate the allocation of altruistic and competitive efforts. From these rudimentary adaptive functions, humans developed the expectation of reciprocal altruism, the building block to morality. This is the expectation that looking out for others will help you and your group. We are hard-wired to be biased to take care of as well as expect cooperation and help from our kin-group ("us") versus an outgroup ("them"). In-group cooperation is rewarding, through the dopaminergic system, and obedience and conformity are reinforcing and reinforced. People are also empathic with, and can mirror the emotions of, shared in-group members. By contrast, and, arguably at the heart of MI, people in "us" groups tend to be apathetic towards, shun, and dehumanize people in a "them" group.

Behaviors that create and maintain an in-group and a predictable experience of an "us" create comfort and safety. Violators of in-group–maintaining behaviors experience fear and stress as loss of in-group social standing is associated with higher basal levels of metabolic steroids, poor recovery from stress, higher blood pressure, poor immune functioning, and executive cognitive dysfunction (e.g., poor decision-making). Individuals who fail to cooperate with individuals in an "us" group or who violate other norms are also shunned and excluded. These reactions to violations of altruism and other social group norms are associated with disgust (related to insula activity), which in turn leads to social rejection. The violator predictably experiences exclusion and "other" status. Deviating from standard moral norms—for instance, committing self-related potentially morally stressful or injurious behaviors—is associated with amygdala and insular cortex activity, motivating behaviors to realign with expected morality. These experiences lead to internalized expectations; people develop knowledge of moral norms and what happens when social rules are violated; of course, rules and expectancies are also based on knowledge acquired in childhood, and, when applicable, various faith traditions. A good way to characterize the core damaging dynamic in self-related MI is when the in-group behaves in ways that demonstrate the norm violator "can no longer be one of 'us'" (Sapolsky, 2017, p. 502) or the transgressor develops an internalized expectation of exclusion ("I can no longer be one of 'us'"). Social exclusion is aversive and damaging.

Emotions are elicited by certain types of stimuli, and different emotions are designed to signal different events (e.g., via facial expressive-motor activity) and motivate varied goal-directed action. Moral emotions are triggered in response to moral violations. Moral emotions are social group–referenced; they are always in reference to judgments about the viability of an "us" member or as responses to individuals or groups that are experienced as "others." The two moral emotions that are putatively most relevant to MI are anger, an other-condemning emotion, and shame, a self-conscious emotion, which are triggered by others' norm violations and self-violations, respectively.

Shame can be viewed as the opposite of pride. Pride is experienced when individuals perceive the self as good and contributing positively and competently to the in-group's success. Shame is triggered when an individual does something that violates social norms with the resulting experience of being flawed and lesser-than. Shame is a social phenomenon and the behaviors that are manifested by shame pertain to needing to hide and hiding behaviors. Laboratory and social psychology studies have revealed that social rejection and shame are associated with increases in stress hormones (e.g., cortisol) and proinflammtory cytokines, which may lead to dysphoria, anhedonia, and "sickness behaviors," such as low motivation, lethargy, fatigue, malaise, and social withdrawal (see Kemeny, Gruenwald, & Dickerson, 2004). Taken together, these various sources of knowledge suggest that moral violators who are socially excluded (or quarantine themselves, so to speak) are at risk for significant stress and behave in putatively defeated and depressed ways.

By contrast, when people in the "us" group thwart or disagree with us, which can be characterized as other-related potentially morally injurious experience, and we have learned to rely on being a part of "us" and all that connotes, anger can result. Anger stems from experiences of unfairness and injustice and involves a motivation to attack, humiliate, and to find retribution (i.e., to get back at the violator). When the insult is not addressable—that is, when retribution and redress are not possible–downstream biological impacts entail various forms of brain circuity dysregulation. In effect, in a schematic sense, the betrayal of expectations of belonging to and being protected by an "us" imparts risk for the core moral emotion, anger, as well as disruptions in moral information-processing and emotion regulation. These experiences affect the capacity for social connections to be rewarding.

To summarize, moral rules serve to maintain social groups and connections (the "us"). Moral emotions arise in response to transgressive acts that entail violations of what is expected by members of the "us" group or by an individual's personally failing to comply with or being seen as incapable of complying with the community's moral expectations. Self- or other-related morally transgressive behavior affects social connection and community membership. The two different experiences of rejecting the "us" when we are the victim of another's moral violation and being excluded by others as a result of personal transgressions may have unique biological and psychological consequences, but each affects social connection and the viability of "us"–group comforts and meaning. Fundamentally, the damage done by MI pertains to identity; who we are is defined by membership in an "us" and the quality of those social connections.

Is Moral Injury a Clinical Syndrome?

Unlike PTSD, there is no universally applicable paradigmatic definition of the outcomes uniquely putatively associated with exposure to PMIEs, which would constitute the construct of MI. For MI to be viable and useful, and as a prerequisite for empirical inquiry, the boundary conditions and features of the construct need to be specified and found to have construct validity, including discriminant and convergent validity. In the clinical realm, this means that MI needs to be defined as a reliably measured syndrome. Yet, there is little discourse about whether the putative outcomes should be considered a clinical syndrome. In fact, Farnsworth and colleagues (2017) expressed concern about considering MI as a clinical condition and thus medicalizing normal responses to moral conflicts (see also Farnsworth, Drescher, Nieuwsma, Walser, & Currier, 2014; Nieuwsma et al., 2015). The concern that responses to moral transgressions might be labeled as abnormal or pathological is reminiscent of dialogues regarding the need for caution about pathologizing grief in response to loss (Shear et al., 2011) as well as concerns regarding pathologizing immediate responses to traumatic stressors that are normal and expected, regardless of magnitude and impact (Adler, Castro, & McGurk, 2009). Ultimately, whether MI is a syndrome and whether there is a cutline (in the statistical sense) beyond which the severity or impact is abnormal are empirical questions. As advances are being made to develop therapies to redress MI (Farnsworth et al., 2017; Kopacz et al., 2016; Nieuwsma et al., 2015), this demarcation between pathological and nonpathological states becomes an important one to consider.

It ultimately may turn out to be the case that MI does not have sufficient incremental validity as a separate syndrome and that PTSD and other existing mental and behavioral health diagnoses will suffice. There are at least three considerations that bolster this possibility. First, given that MI is a painful, high-magnitude, potentially consuming, and stressor-linked problem, it is difficult to imagine the PTSD symptoms of reexperiencing, strategic avoidance, disinterest, detachment, and restricted range of affect not being core outcomes, as Litz and colleagues (2009) posited. Second, PTSD Criterion A events can be morally injurious and people can have PTSD as a result of these events (Held, Klassen, Brennen, & Zalta, 2018; Litz et al., 2018). Third, the diagnosis of PTSD in the fifth edition of the *DSM* (*DSM-5*) added symptoms in Cluster D that involve negative thoughts about oneself or the world and negative affects, some of which are moral emotions. Similarly, the addition of symptoms to Cluster E that involve reckless or self-destructive behavior may help capture putative morally injurious outcomes. Nonetheless, it seems likely that there is a unique morally injurious phenomenology not accounted for by PTSD. This is because PTSD has historically been framed as a danger- and victimization-based disorder and the *DSM-5* requires direct or indirect exposure to life-threat or sexual violence for an experience to qualify as a Criterion A event. Consequently, PTSD can be applied formally only to moral injuries that occur in the context of life threats, which is unnecessarily limiting to the construct. Consequently, to insure relevance to MI, the *DSM* definition would need to be revised to accommodate the full range of morally injurious events. In addition, the *DSM-5* symptom involving exaggerated or misplaced blame is problematic in the context of moral transgressions given that self- or other-blame about the cause of an MI event may be accurate and appropriate. In addition, symptoms of reckless or self-destructive behavior may not apply to non–self-based morally injurious events. Nevertheless, until we can test the limits of a unique MI syndrome, clinically significant level of PTSD symptoms may be the most appropriate way to determine if someone needs clinical care, albeit use of the *DSM* to assess those symptoms would require some modifications, including broadening Criterion A, specifying predominant emotions, and refashioning the question about blame, as noted.

A Heuristic Continuum Model of Moral Stressors

It may lend conceptual clarity to consider a heuristic continuum of morally relevant life experiences and corresponding responses, with varying magnitudes and impacts. Figure 1 depicts this hypothetical continuum. Because of the centrality of

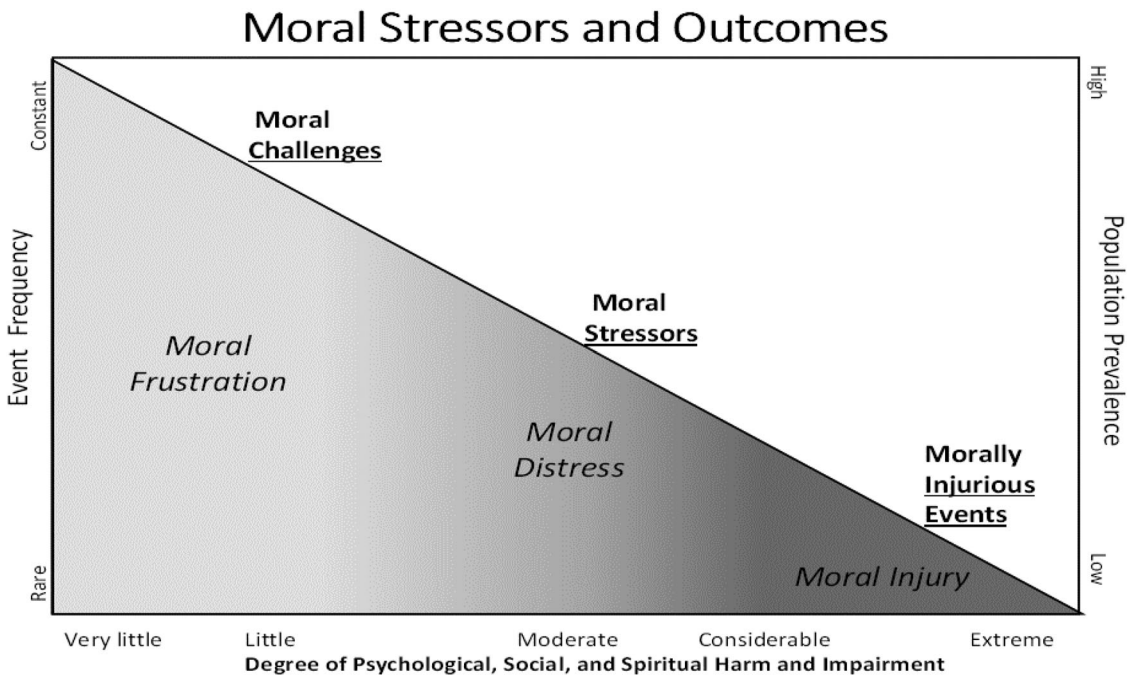

Figure 1. Heuristic continuum of morally relevant life experiences and corresponding responses.

moral judgments and decision-making in human life, events or experiences that acutely, or, upon reflection, violate a person's beliefs about what is right and just or wrong and unjust are moderated by culture and individual differences and will elicit biological, social, and psychological reactions. These reactions are further moderated by culture and individual differences. In this model, the magnitude and impact of responses are shaped by the magnitude and type of moral conflict.

Experiences that are ongoing or have no immediate self-relevance are potential *moral challenges* that may reach a discernable but normal level of moral frustration. A good example of this are the heartfelt concerns and worries about the fate of the planet and political inaction in response to global warming and climate change. Events that are self-referential (e.g., when one is a moral agent or is directly impacted by other's transgressive behaviors) are considered *moral stressors* and are those more likely result in *moral distress*. Here, Farnsworth and colleagues' (2017) model suggesting that moral emotions are prerequisites to moral impact is relevant. In theory, the most prominent features of moral distress would be clear and focal moral emotions. Just like fear or anxiety, or sadness and happiness for that matter, moral emotions cannot be ignored and can predominate consciousness. These kinds of reactions and the behavioral and psychological consequences that may flow from them are stressful and impairing but not incapacitating. Examples of moral stressors include infidelity, behaving hurtfully to someone you love, and stealing intellectual property. People may lose sleep and have intrusive thoughts about moral stressors, but they are not disabled by them nor does the experience define them. Moral stressors occur less frequently than moral challenges and are higher-stakes, but they are less likely to involve grave threats to personal integrity or loss of life in comparison to PMIEs, which are the least frequent, and by definition, abnormal, but are the most potentially impactful, resulting in the outcome of MI.

In this framework, MI would entail moral emotions that are very high in magnitude and impact, which would result in strong collateral impact and potentially chronic symptoms and problems. Although it has been proposed that MI occurs only when a person fails to cope with the moral emotions, regardless of severity and impact (Farnsworth et al., 2017), the present model suggests an alternative perspective that is open to empirical investigation. One such test would involve investigating whether there are some degrees of moral emotions that are statistically abnormal and constitute injurious, or even scarring, experiences. A second test of the assumptions underlying these contrasting models would be to examine whether coping strategies serve as mediators of the association between PMIEs and MI or whether there are other biological and automatic determinants, particularly in contexts in which people do not have choices, control, and access to conscious and agentic coping strategies. In sum, in the hypothesized continuum model offered here, MI is distinguishable from moral stress by the severity of moral emotions and symptoms and the likelihood that the experience and the downstream impacts will alter the individual's identity.

People who struggle to adapt to moral stress do not necessarily believe that they or others are defined by the experience. By contrast, people who struggle with MI have made enduring self-attributions about themselves or others. Schematically, in the context of one's own acts of commission or omission, the

attribution that has to be reconciled in some way is that "I am bad;" in the context of being subject to someone else's egregious moral violation, the attribution is "that person and most others are bad," which also has to be reconciled. In the context of moral stressors, individuals may feel guilty about a specific act, and thus act accordingly (i.e., do something to mend the violation); in contrast, in the case of self-based MI, it is shame that predominates and, moreover, the act comes to defines one's identity. In the case of other-caused moral stress, one may feel irritated and periodically angry about being the victim of someone else's transgression, wanting redress but able to function without it. In contrast, in other-caused MI, anger predominates, with periods of rage, and it is impossible to reconcile the experience without some fantasized redress or at least a change in others' behavior. In the context of religious beliefs, moral stress and MI also might be differentiated on the basis of the profoundness of their effects; for example, only in the case of MI would we expect religious persons to experience a crisis in adhering to or being comforted by faith. Finally, moral stressors are not likely to lead to social exclusion and rejection, which are arguably pathognomonic in MI.

Epidemiologically, moral challenges are ubiquitous; they are the human condition. By contrast, moral stressors are acute insults that are not common but are more common than PMIEs. Accordingly, the prevalence of MI as an outcome is likely low, even in risky contexts and occupations. Moral stress is normal and the expectation is for complete recovery with no lasting harm. In this regard, we can reconcile questions about where moral struggles lie on the continuum of normality by strategically placing MI into the realm of abnormal and framing the outcome as clinically concerning. The model suggested here does not include categorical demarcations or cut-points between the three types of experiences and outcomes. However, in the future, a score range that indicates a clinically significant problem, with perhaps some prerequisite necessary features, might be identified. Ultimately, the question of whether there is a categorical determination of MI is relevant to forensic and insurance contexts. Whether MI should be used as a legal defense or a mitigating factor, whether MI should be a considered a compensable harm in civil cases or occupational contexts, or whether the treatment of the problem should be insured, are unavoidable but immensely thorny questions.

The Present Special Issue

The articles contributed to this special issue on the topic of MI exemplify the creative and innovative work that is currently being done to refine and expand the conceptualization and empirical investigation of the construct. Leading off the issue, Griffin and colleagues (2019) provide an integrative review of the state of the art of the science of MI. Their review reveals both a wealth of literature, with 116 relevant empirical and clinical studies uncovered, as well as a number of significant gaps and areas for future research. In particular, echoing the challenges raised in the foregoing overview of the field, progress has been limited by the diversity of definitions and measures of the MI construct, the almost exclusive focus on military contexts, and small-scale clinical investigations that have not yet tested theoretically derived hypotheses regarding the mechanisms of effect of treatments designed to achieve moral repair in the face of MI. Next, in an effort to move the field forward, Yeterian and colleagues (2019) describe the efforts of a consortium of researchers devoted to collaborating on the development of a gold-standard measure designed to capture the injurious outcomes associated with exposure to PMIEs. As was suggested in the previous review's pointing toward the value of qualitative data, an important initial source of insight is being provided by clinical interviews into the phenomenological experiences of service members and veterans who are affected by acts of commission, omission, or witnessing of others' transgressions. Continuing on this theme of refining our conceptualization of the construct, Farnsworth (2019) offers a conceptual model with particularly promising implications for treatment, given that it allows for both distinguishing and integrating MI-focused interventions and existing well-established evidence-based treatments for PTSD by pointing toward the ways in which value is added by discriminating clinically the objectively falsifiable *descriptive* cognitions targeted by cognitive treatments for PTSD and the subjective, untestable *prescriptive* cognitions underlying MI.

The next set of papers in the special issue focus on empirical investigations of assumptions underlying the construct. First, Currier, McDermott, Farnsworth, & Borges (2019) address the important question of the association between MI and PTSD. In a sample of previously deployed veterans followed over the course of 6 months, the investigators found that MI outcomes directed toward the self (e.g., "I am ashamed of things I have done") were more strongly related to PTSD than were other-directed MIs (e.g., "I resent people who betrayed my trust"). Moreover, temporal analyses of cross-lagged paths revealed that MI at the first assessment point was predictive of PTSD at the later assessment although PTSD symptoms in Cluster D (changes in cognition and mood) were also predictive of MI at the second time point. These findings have valuable implications for informing clinical assessments, identifying treatment targets, and prognosticating recovery. Next, in keeping with the conceptualization of MI as deeply embedded in systems of personal values and meaning-making, Currier, Foster, and Isaak (2019) offer a typology of ways in which outcomes related to MI might involve struggles with religious faith or spirituality. In two samples, the investigators found a subtype among war zone veterans whose PMIEs featured turmoil related to their spiritual beliefs or relationship with a higher power. Tellingly, these were veterans for whom spirituality or religion was an important personal value, thus suggesting the need for further investigations to take into account the wide diversity of belief systems that might shape the meaning given and the consequences accruing from morally injurious events. The subsequent paper continues this theme, with Battles, Kelley, Jinkerson, Hamrick, & Hollis' (2019) investigation of the associations among PMIEs,

spiritual injury (defined as alienation from or anger at one's deity), and the specific outcome of problematic alcohol use among combat veterans. Intriguingly, spiritual injury mediated the effects of MI on alcohol use for men but not for women in the sample, suggesting the importance for future research to examine potentially gender-specific forms of maladaptive coping with the negative aftermath of MI. On the other side of the coin, that of resilience, Davies and colleagues (2019) found that trait mindfulness facets of nonjudging and awareness attenuated the association between PMIEs and substance abuse. However, the findings were complicated by the fact that the mindfulness facets of observing, nonreactivity, and describing were associated with an exacerbation of the association between MI and substance abuse. These results may have valuable implications for treatments that utilize third-wave therapy techniques, suggesting that fine-tuning might be needed to more effectively target the cognitive and emotional underlays to MI. In turn, Zerach and Levi-Belz (2019) investigated a different trait-like characteristic, intolerance of uncertainty, which they found to moderate the association between exposure to PMIEs and suicidality in a sample of combat veterans.

The last two articles stand apart in that they represent the only contributions to this special issue to investigate the construct of MI outside of the military context. First, Steinmetz, Gray, & Clapp (2019) describe the development and validation of a new measure for use with civilian populations that focuses on negative reactions of shame and guilt/self-blame following upon experiences in which participants perpetrated acts of harm against another. The psychometric properties of the measure were found to be strong, and the expected associations with functional impairment, PTSD, and measures of similar constructs provided good evidence for construct validity. In turn, Chaplo, Kerig, & Wainryb (2019) provide a downward extension of the MI construct relevant to samples of youth by validating a developmentally appropriate measure that extends beyond direct perpetration to include other forms of MI events assessed in the adult research, including acts of commission with agency, commission under duress, omission, witnessing, and experiences of betrayal. In a first step, using a sample of emerging adults for whom other validated measures were available, the investigators confirmed the factor structure of the measure and demonstrated convergent and divergent validity with measures of related constructs, including posttraumatic stress symptoms. These new measures provide a major step forward for the study of MI-related phenomena in nonmilitary samples, including adult civilians and youth.

The issue concludes with commentaries from leading scholars in the field who address the advances made and gaps remaining in the theoretical, empirical, and clinical literatures on the MI construct (Nash, 2019; Neria & Pickover, 2019). Last but not least, we offer our sincere thanks to the reviewers who generously gave their time to help bring together this special issue: Andrea Ashbaugh, Anu Asnaani, Bradley Bekh, Lily Brown, Joseph Currier, Kent Drescher, Virginia Eatough, Jacob Farnsworth, Matt Gray, Brandon Griffin, Philip Held, Marek Kopacz, Annette Mahoney, Jason Nieuwsma, Gina Owens, J. Don Richardson, David Rozek, Jeremiah Schumm, Yonit Schurr, Andy Siddaway, Derek Smolenski, Laura Stayton, Maria Steenkamp, Nathan Stein, Jennifer Wachen, Jennifer Wortmann, and Liyun Wu.

Summary and Conclusion

Taken together, the contributions to this special issue illustrate not only the maturing of the study of MI but also the many additional avenues that need to be explored in order to better define the boundaries of the construct. Moral injury is a construct with important biological, psychological, and social dimensions. We are hard-wired to be altruistic towards, in tune and cooperative with, and rewarding of others in an "us" group, and thus, threats to the comforts and protections provided by an "us" group are as existential as fight–flight–freeze in response to acute dangers. Moral rules and expectations maintain "us" group standing, determine ways of relating to the in-group, and define our social identity; violations of these moral rules have predictable biological, social, and psychological impacts just as do conditioned fear and downstream dysregulations in fear circuitry. There is no question that moral transgressions affect quality of life and well-being. Our challenge is to determine the boundary conditions between normal, expected, and recoverable transgressions and impacts as well as the abnormal and clinically relevant degrees of transgressive experiences and impacts; that is, MI. The field will benefit from continued efforts to clarify the parameters of the problems we need to address in the service of future research designed to test the limits of MI as a clinical syndrome. In addition to issues regarding the boundaries of the condition, future investigations of the topic need to continue taking a critical perspective on the internal and external validity of studies of the MI construct, disaggregating exposure to PMIEs and outcomes, expanding the discourse about MI to all human endeavors besides military combat, appealing to biological and psychological studies of morality and moral emotions (e.g., Farnsworth et al., 2014; Haidt, 2003); and conducting qualitative research involving people's felt experience of the lasting impacts of exposure to high-magnitude transgressions in varied contexts.

References

Adler, A. B., Castro, C. A., & McGurk, D. (2009). Time-driven battlemind psychological debriefing: A group-level early intervention in combat. *Military Medicine*, *174*, 21–28. https://doi.org/10.7205/milmed-d-00-2208

Battles, A. R., Kelley, M. L., Jinkerson, J. D., Hamrick, H. C., & Hollis, B. F. (2019). Associations among exposure to potentially morally injurious experiences, spiritual injury, and alcohol use among combat veterans. *Journal of Traumatic Stress*, *32*, 405–413.

Chaplo, S. D., Kerig, P. K., & Wainryb, C. (2019). Development and validation of the Moral Injury Scales for Youth. *Journal of Traumatic Stress*, *32*, 448–458.

Currier, J. M., Farnsworth, J. K., Drescher, K. D., McDermott, R. C., Sims, B. M., & Albright, D. L. (2017). Development and evaluation of the

Expressions of Moral Injury Scale–Military Version. *Clinical Psychology & Psychotherapy*, *25*, 1–15. https://doi.org/10.1002/cpp.2170

Currier, J. M., Foster, J. D., & Isaak, S. L. (2019). Moral injury and spiritual struggles in military veterans: A latent profile analysis. *Journal of Traumatic Stress*, *32*, 393–404.

Currier, J. M., McDermott, R. C., Farnsworth, J. K., & Borges, L. M. (2019). Temporal associations between moral injury and Posttraumatic Stress Disorder symptom clusters in military veterans. *Journal of Traumatic Stress*, *32*, 382–392.

Davies, R. L., Prince, M. A., Bravo, A. J., Kelley, M. L., & Crain, T. L. (2019). Moral injury, substance use, and Posttraumatic Stress Disorder symptoms among military personnel: An examination of trait mindfulness as a moderator. *Journal of Traumatic Stress*, *32*, 414–423.

Drescher, K. D., Currier, J. M., Nieuwsma, J. A., McCormick, W., Carroll, T. D., Sims, B. M., & Cauterucio, C. (2018). A qualitative examination of VA chaplains' understandings and interventions related to moral injury in military veterans. *Journal of Religion and Health*, *57*, 2444–2460. https://doi.org/10.1007/s10943-018-0682-3

Drescher, K. D., Nieuwsma, J. A., & Swales, P. (2013). Morality and moral injury: Insights from theology and health science. *Reflective Practice: Formation and Supervision in Ministry*, *33*, 50–61.

Farnsworth, J. K. (2019). Is and ought: Descriptive and prescriptive cognitions in military-related moral injury. *Journal of Traumatic Stress*, *32*, 373–381.

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*, 391–397. https://doi.org/10.1016/j.jcbs.2017.07.003

Farnsworth, J. K., Drescher, K. D., Nieuwsma, J. A., Walser, R. B., & Currier, J. M. (2014). The role of moral emotions in military trauma: Implications for the study and treatment of moral injury. *Review of General Psychology*, *18*, 249–262. https://doi.org/10.1037/gpr0000018

Frankfurt, S., & Frazier, P. (2016). A review of research on moral injury in combat veterans. *Military Psychology*, *28*, 318–330. https://doi.org/10.1037/mil0000132

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*, 350–362.

Haidt, J. (2003). The moral emotions. In R. J. Davidson, K. R. Scherer, & H. H. Goldsmith (Eds.), *Handbook of affective sciences* (pp. 852–870). Oxford, UK: Oxford University Press.

Haley, S. (1974). When the patient reports atrocities. *Archives of General Psychiatry*, *30*, 191–196. https://doi.org/10.1001/archpsyc.1974.01760080051008

Harris, I., Usset, T., & Cheng Z. H. (2018). Theodicy and spiritual distress among veterans managing posttraumatic stress. *Spirituality in Clinical Practice*, *5*, 240–250. https://doi.org/10.1037/scp0000170

Held, P. H., Klassen, B. J., Brennan, M. B., & Zalta, A. K. (2018). Using prolonged exposure and cognitive processing therapy to treat veterans with moral injury-based PTSD: Two case examples. *Cognitive and Behavioral Practice*, *25*, 377–390. https://doi.org/10.1016/j.cbpra.2017.09.003

Jinkerson, J. D. (2016). Defining and assessing moral injury: A syndrome perspective. *Traumatology*, *22*, 122–130. https://doi.org/10.1037/trm0000069

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*, 627–634. https://doi.org/10.1037/tra0000249

Kemeny, M. E., Gruenewald, T. L., & Dickerson, S. S. (2004). Shame as the emotional response to threat to the social self: Implications for behavior, physiology, and health. *Psychological Inquiry*, *15*, 153–160.

Kerig, P. K., Chaplo, S. D., Bennett, D. C., & Modrowski, C. A. (2016). "Harm as harm:" Gang membership, perpetration trauma, and posttraumatic stress symptoms among youth in the juvenile justice system. *Criminal Justice and Behavior*, *43*, 635–652. https://doi.org/10.1177/0093854815607307

Kopacz, M. A., Connery, A. L., Bishop, T. M., Bryan, C. J., Drescher, K. D., Currier, J. M., & Pigeon, W. R. (2016). 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

Lifton, R. J., & Olson, E. (1976). The human meaning of total disaster. *Psychiatry: Journal for the Study of Interpersonal Processes*, *39*, 1–18. https://doi.org/10.1080/00332747.1976.11023872

Lindemann, E. (1944). Symptomatology and management of acute grief. *American Journal of Psychiatry*, *101*, 141–148. https://doi.org/10.1176/ajp.101.2.141

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*, 695–706. https://doi.org/10.1016/j.cpr.2009.07.003

Litz, B., Contractor, A., Rhodes, C., Dondanville, K., Jordan, A., Resick, P., … for the STRONG STAR Consortium. (2018). Distinct trauma types in military service members seeking treatment for posttraumatic stress disorder. *Journal of Traumatic Stress*, *31*, 286–295. https://doi.org/10.1002/jts.22276

Maguen, S., Luxton, D. D., Skopp, N. A., Gahm, G. A., Reger, M. A., Metzler, T. J., & Marmar, C. R. (2011). Killing in combat, mental health symptoms, and suicidal ideation in Iraq war veterans. *Journal of Anxiety Disorders*, *25*, 563–567. https://doi.org/10.1016/j.janxdis.2011.01.003

Maguen, S., Thomas, J., Metzler, T., Litz, B., Seal, K., Knight, S., & Marmar, C. (2009). The impact of killing in war on mental health symptoms and related functioning. *Journal of Traumatic Stress*, *22*, 435–443. https://doi.org/10.1002/jts.20451

McNair, R. (2002). *Perpetration-induced traumatic stress*. New York, NY: Praeger.

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*, 646–652. https://doi.org/10.7205/MILMED-D-13-00017

Neria, Y., & Pickover, A. (2019). Commentary on the special issue on moral injury: Advances, gaps in literature, and future directions. *Journal of Traumatic Stress*, *32*, 459–464.

Nieuwsma, J. A., Walser, R. D., Farnsworth, J. K., Drescher, K. D., Meador, K. G., & Nash, W. P. (2015). Possibilities within acceptance and commitment therapy for approaching moral injury. *Current Psychiatry Reviews*, *11*, 193–206. https://doi.org/10.2174/1573400511666150629105234

Sapolsky, R. M. (2017). *Behave: The biology of humans at our best and worst*. New York, NY: Penguin.

Shatan, C. (1972, May 6). Post-Vietnam syndrome. *The New York Times*, Retrieved from http://www.nytimes.com

Shay, J. (1995). *Achilles in Vietnam: Combat trauma and the undoing of character*. New York, NY: Touchstone.

Shay, J. (2014). Moral injury. *Psychoanalytic Psychology*, *31*, 182–191. https://doi.org/10.1037/a0036090

Shear, M. K., Simon, N., Wall, M., Zisook, S., Neimeyer, R., Duan, N., Reynolds, C., … Keshaviah, A. (2011). Complicated grief and related

bereavement issues for DSM-5. *Depression & Anxiety*, *28*, 103–117. https://doi.org/10.1002/da.20780

Singer, M. (2004). Shame, guilt, self-hatred and remorse in the psychotherapy of Vietnam combat veterans who committed atrocities. *American Journal of Psychotherapy*, *58*, 377–385. https://doi.org/10.1176/appi.psychotherapy.2004.58.4.377

Steinmetz, S. E., Gray, M. J., & Clapp, J. D. (2019). Development and evaluation of the Perpetration-Induced Distress Scale for measuring shame and guilt in civilian populations *Journal of Traumatic Stress*, *32*, 437–447.

Tangney, J. P., Steuwig, J., & Mashek, D. J. (2007). Moral emotions and moral behavior. *Annual Review of Psychology*, *58*, 345–372. https://doi.org/10.1146/annurev.psych.56.091103.070145

Wainryb, C., Brehl, B. A., & Matwin, S. (2005). Being hurt and hurting others: Children's narrative accounts and moral judgments of their own interpersonal conflicts. *Monographs of the Society for Research in Child Development*, *70*, 62–71.

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*, 249–261. https://doi.org/10.1037/scp0000140

Yeterian, J. D., Berke, D. S., Carney, J. R., McIntyre-Smith, A., St. Cyr, K., King, L., … Litz, B. T. (2019). Defining and measuring moral injury: Rationale, design, and preliminary findings from the Moral Injury Outcome Scale Consortium. *Journal of Traumatic Stress*, *32*, 363–372.

Zerach, G., Levi-Belz, Y. (2019). Intolerance of uncertainty moderates the association between potentially morally injurious events suicide ideation and behavior among combat veterans. *Journal of Traumatic Stress*, *32*, 424–436.