HOW MILITARY SERVICE MEMBERS INTERPRET THEIR REGRETTED ACTIONS AND INACTIONS

BY

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DISSERTATION

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ABSTRACT

The present studies investigated regretted actions and inactions of military Veterans. Utilizing a mixed methods approach, the aim of these studies was: (a) to estimate the prevalence and characteristics of acts of commission (actions) and omission (inactions) resulting in either physical or emotional harm to others; (b) gather descriptions of the events that Service Members consider to be acts of commission and omission; and (c) to explore Veterans’ interpretations of these (in)actions. Samples of 505 (19% female) and 14 (7% female) Iraq/Afghanistan military Veterans participated in our questionnaire and interview studies respectively. Questionnaire participants completed measures of the prevalence and interpretation of (in)actions (e.g., altered worldviews), psychological problems (e.g., PTSD) and combat/post-combat experience. Interview participants described wartime events and how they interpreted their (in)actions over time. We recruited our sample from local Veterans’ organizations and a crowdsourcing website (MTurk).

We found that (in)actions were fairly common (49.3% reported at least one). Service Members’ descriptions, interpretations, and endorsement of psychological problems differed based on the type of (in)action they reported. When compared to other types of (in)actions, acts of commission resulting in physical harm to others (Commission-Physical) had distinct characteristics with regards to context (e.g., most likely to occur during combat), outcome (e.g., only depicted harm to non-Service Members), interpretation (e.g., least likely to be regretted) and psychological outcomes (e.g., when regretted, Commission-Physical actions were most-strongly associated with PTSD). Different types of (in)actions also appear to be associated with alterations to Service Members’ worldviews in different ways (e.g., whether changes occur to one’s conceptualization of oneself vs. others/the world). Altered worldviews was also the only interpretation variable that predicted psychological problems independently of other interpretation variables (e.g., guilt/shame) when other factors were accounted for (e.g., age, combat experience).
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CHAPTER 1: INTRODUCTION

Although many military personnel and veterans demonstrate negligible psychological distress following high-stress military operations, a sizeable proportion experience a range of mental health and adjustment difficulties during their service and post-deployment (e.g., Hoge, Auchterlone, & Miliken, 2006; Ramchand et al., 2010). Among the most common mental health difficulties within the military population is post-traumatic stress disorder (PTSD; Weiss et al., 1992; Hoge et al., 2004). Since the beginning of Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF), researchers have estimated that approximately 15% of returning veterans require treatment for PTSD (costing an estimated $200 million yearly in healthcare expenses; Harrison et al., 2010).

Among the various theories proposed to explain the etiology of PTSD, most (but not all) of the theoretical explorations of PTSD have focused on fear (Gillihan, Cahil, & Foa, 2014). One theory that has shaped many investigations and PTSD treatments is Foa and Kozak’s (1986) cognitive processing theory. Cognitive processing theory proposes that specific pathological fear structures underlie PTSD.\(^1\) Further, two of the four strongly recommended treatments proposed by the APA’s Guideline Development Panel for establishing clinical practice guidelines for the treatment of PTSD (cognitive processing therapy (CPT) and exposure therapy (PE)) are based, in large part, on Foa and Kozak’s (1996) proposal that effective psychosocial intervention requires modification of the pathological elements of the victim’s fear structure (Courtois et al., 2016).

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\(^1\) Foa and Kozak’s (1986) framework for explaining fear structures is based largely on Lang’s (1977) bio-informational theory proposing that fear is represented in memory as a structure that includes representations of feared stimuli, fear responses, and the meaning of these stimuli and responses. According to this theory, a traumatic memory can be distinguished from other memories by the presence of a large number of stimulus representations associated with danger and by particularly strong response elements.
Though much of the theory and investigation pertaining to PTSD has focused on post-traumatic fear structures, some researchers have also noted strong associations between moral emotions (e.g., guilt and shame) and PTSD symptom severity (e.g., Fontana, Rosenheck, & Brett, 1992). Though guilt was included as one of the original symptoms when PTSD was first included in the DSM (American Psychiatric Association, 3rd ed., 1980), early research with military veterans considered guilt narrowly as an irrational belief about surviving when others did not survive (Opp & Samson, 1989). However, subsequent researchers have noted that guilt and shame are not only associated with the threat to one’s own survival or the survival of other unit members, but also events in which survival was not threatened (e.g., Kubany, Abueg, Kilauano, Manke, & Kaplan, 1997; Leskela, Dieperink, & Thuras, 2002). For example, military personnel serving in war are confronted with a variety of ethical and moral challenges that may transgress deeply held beliefs or integral rules/codes of behavior (Solomon, Mikulincer, & Hobfoll, 1987). Essentially, many servicemen and servicewomen are not only victims but are also perpetrators of threatened harm and violence.

Recognizing the growing body of work focusing on guilt/shame and acts committed by military members that harm others, Litz and et al. (2009) proposed a new term, moral injury, to describe the association between Service Members’ psychological maladaptation and their perceived responsibility for inflicting violence on others. Defined as “perpetrating, failing to prevent, bearing witness to, or learning about acts that transgress deeply held moral beliefs and expectations,” (Litz et al., 2009, p. 699) moral injury research has explored the repercussions of actions people take (e.g., killing someone) that go against one’s moral beliefs and/or code about what is right and wrong (e.g. Finley, 2011; Van Winkle & Safer, 2011). Prior research among

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2 This spelling/punctuation and usage is utilized as recommended by the Writing Style Guide and Preferred Usage for Department of Defense (2016, March 28) Issuances.
military veterans offers support for the concept of moral injury (e.g., Fontana & Rosenheck, 1999). For example, investigators have found that acts resulting in harming others are associated with higher rates of psychological problems (e.g., Flipse Vargas, Hanson, Kraus, Drescher, & Foy, 2013). Interest in moral injury has been increasing rapidly. In particular, the literature on moral injury has increased over the last half-decade (a PsycINFO search for moral injury from January 2010 to the present returned 247 citations, up from 117 in the preceding ten-year period).

Despite considerable growth in the moral injury literature, it continues to have considerable limitations (Frankfurt & Frazier, 2016). First, acknowledging that the duties and responsibilities of military service members within a combat setting increase the likelihood that they will cause harm to others, moral injury investigations have focused on acts committed by military personnel (e.g., killing; Maguen et al., 2010). However, acts of omission (we define these as failing to prevent harm to others when they believe they should have done so) may also be an important predictor of psychological problems. Consistent with this conjecture, Fontana and Rosenheck (2004) found that failure actions (e.g. failing to fulfill duties, inability to save the wounded) positively predicted psychological problems among Vietnam and Korea-era veterans.

Another limitation of moral injury research so far has been the narrow focus on Service Members’ interpretation that they broke their own rules of right and wrong. Research suggests that other interpretations may be important as well. For example, findings that individuals who have greater difficulty reconciling the meaning of potentially traumatic wartime events tend to have greater PTSD symptoms (e.g., Ehlers & Clark, 2000) suggest that violations and alterations to Service Members’ worldviews (e.g., alterations to one’s conceptualization of oneself, others, and/or the world) may also be related to moral injury. First-hand accounts from OEF/OIF
veterans have also revealed individual differences among Service members’ justifications for wartime actions (e.g., Grossman, 2009). Correspondingly, while many veterans express some remorse in relation to Morally Injurious Events (MIEs) they also report that they did what they had to do to survive (e.g., Currier, McCormick, & Drescher, 2015). Thus, another interpretation that may be associated with moral injury is the extent to which Military personnel judge their actions or inactions (hereafter: [in]actions) as appropriate (e.g., because they were following the orders of their superiors, doing their duty, or doing what they had to do to stay alive; Gray, 1998; Shay, 1995).

The final limitation concerns the psychological problems investigated by moral injury researchers. Based, in large part, on studies that have consistently found that greater combat (e.g., incoming fire, killing) and post-combat (e.g., seeing dead bodies) exposure is associated with greater severity of PTSD (e.g., MacNair, 2002), moral injury researchers have theorized that Service Members reporting acts that resulted in harm to others would also endorse higher levels of PTSD (Litz et al., 2009). However, other psychological problems that have been linked to wartime experiences, such as depression (Kim, Thibodeau, & Jorgensen, 2011), suicidal ideation (Bryan, Morrow, Etienne, & Ray-Sannerud, 2013), and alcohol use (Wilk et al., 2010), have largely been ignored by moral injury researchers.

Endeavoring to address these limitations (i.e., lack of exploration of actions and inactions as well as the narrow/limited focus of interpretations and psychological problems associated with MIEs) within the moral injury literature, Williams and Berenbaum (in review) conducted an initial, small-scale ($n = 50$) exploratory investigation. Findings from this study offered evidence that acts of omission are important. For example, whereas both acts of commission and omission were significantly associated with psychological problems, only acts of omission continued to
predict both PTSD and depression/suicidality when accounting for age, gender, and the combined combat/post-combat experiences of their Service Member sample. Thus, Williams and Berenbaum’s findings also offer support for the relationship between MIEs and other psychological problems beyond PTSD (i.e., depression/suicidality).

The Williams and Berenbaum (in review) study also found noteworthy evidence suggesting that altered worldviews are important. Whereas both altered worldviews and the perception of breaking one’s rules of right and wrong were associated with PTSD and depression/suicidality, only altered worldviews continued to be significantly associated with PTSD and depression/suicidality after taking into account age, gender, and combined combat/post-combat experiences. Moreover, higher levels of both acts of commission and omission were associated with higher levels of breaking one’s rules of right and wrong and altered worldviews. Interestingly, however, perceptions of appropriateness (e.g., “Given the circumstances, my actions/inactions were appropriate”) were associated differently with acts of commission (the more that participants rated an act of commission the more they endorsed appropriateness) than with acts of omission (the more that participants rated an act of omission the less they endorsed appropriateness). Unexpectedly, Service Members’ perceptions of the appropriateness of their (in)actions were not associated with any of the psychological problems that were measured (PTSD, depression/suicidality, and alcohol use).

Given that the Williams and Berenbaum (in review) study was the first to suggest the potential importance of acts of omission, altered worldviews, a major aim of this dissertation was to determine if the findings from the exploratory study could be replicated. This project also sought to extend the findings of Williams and Berenbaum (in review) by exploring the unexplained or surprising results in greater detail while also addressing a number of the initial
study’s limitations. First, though the Williams and Berenbaum (in review) study offered evidence suggesting that both acts of commission and omission were fairly common among OEF/OIF veterans (67% reported an act of commission, act of omission, or both), the sample size ($N = 50$) was insufficient to make any claims of prevalence for the military population more generally. Hence, one aim of this project was to gain a better estimate of the prevalence of actions and inactions among military Service Members.

One limitation of Williams and Berenbaum’s (in review) study was the somewhat vague definitions of both acts of commission and omission. The initial study asked two questions concerning actions, (e.g., “What I did caused substantial physical harm to another person”) and only one question concerning acts of omission (“I feel like there was something I could have done but did not do it”). For this project, we asked two questions concerning both commission and omission. We also reworded and expanded questions to more clearly define the criteria of an (in)action. Specifically, we asked about (in)actions that led to “substantial” (a lot) and “lasting” (more than one week) harm to others. Next, based on interviews among Service Members revealing that, though many MIEs likely result in physical harm to others, (in)actions can also result in other types of harm (Currier et al., 2015), we asked Service Members whether their (in)action(s) resulted in physical harm and/or emotional harm to others, see (in)action questions below).

To further expand our investigation of (in)actions, we considered a number of additional characteristics/outcomes. Accounts of Service Members’ wartime events have illustrated that Veterans often differ in the level of regret they associate with their wartime experiences (Sites, 2013). We hypothesized that regret might be one feature that distinguishes different (in)actions (e.g., Service Members may endorse greater regret for acts of omission resulting in emotional
harm to others than for acts of commission resulting in emotional harm to others). Based on the higher correlations between acts of omission and psychological problems (when compared to acts of commission) found by Williams and Berenbaum (in review), we hypothesized that Service Members would endorse overall higher scores of regret for acts of omission. Further, accounts of Service Members’ wartime experiences (e.g., Grossman, 2009, Shay, 2003) suggest that (in)actions may differ based on whether Service Members report: (a) the (in)action occurred during a combat scenario, (b) whether the Service Member believes they were doing their duty during the incident, and (c) whether the Service Member believes that their (in)action contributed to the success of their unit’s mission. We hypothesized (based on Service Members’ accounts; e.g., Sites, 2013) that participants would be more likely to endorse all three of the additional characteristics/outcomes for acts of commission than for acts of omission.

In addition to extending Williams and Berenbaum’s (in review) findings to determine if (in)actions differ based a variety of characteristics/outcomes, we also explored whether we could replicate the findings that some interpretations associated with Service Members (in)actions (i.e., altered worldviews) were more strongly associated with psychological problems than other interpretations (e.g., breaking one’s rules of right/wrong). Indeed, Williams and Berenbaum (in review) found that altered worldviews were not only stronger at predicting PTSD and depression/suicidality than breaking one’s rules of right/wrong, but even predicted psychological problems above and beyond guilt and shame (emotions which, as noted above, have long been documented as important contributors to psychological problems among military personnel, e.g., Leskela, Keperink, & Thuras, 2002).

This dissertation also sought to determine if the unexpected findings related to appropriateness would replicate while exploring additional features that might clarify and expand
our understanding of how Service Members interpret the appropriateness of their (in)actions. Though Williams and Berenbaum (in review) found that perceived inappropriateness was associated with both acts of commission and omission, they did not find strong associations between participants’ perceived inappropriateness and psychological problems. It may be, therefore, that Service Members’ perceptions of the inappropriateness of their (in)actions may be more complicated than other interpretations. Among the possible considerations that may shape Service members’ judgements of appropriateness is the presence of others during their inaction(s). One reason that the presence of others may influence a Service member’s interpretation of the appropriateness of their (in)actions may be found in investigations that have proposed that atrocities performed as a group are typically evaluated as a group (e.g., Shay, 2003). Similarly, Bandura (1999) has argued that atrocities that are perpetrated by a group of individuals allows for a removal of self-blame through sharing or diffusing responsibility among other group members (i.e. division of labor) and/or dehumanization of the enemy (i.e. euphemistic language).

Another factor that may shape judgments of appropriateness is whether Service Members perceive they are protecting others through their (in)action(s). Grossman (2009) noted that, among military veterans who reported using deadly force against an enemy combatant, those who perceived that they were protecting other members of their unit family endorsed their actions as appropriate, albeit undesired, in order to protect the members of their unit family. By contrast, violent force against unarmed civilians was perceived as inappropriate. Other investigators have reported that veterans often describe their actions as the “lesser of two evils” when they report using deadly force in order to protect the members of their unit family (e.g., Lazar, 2013). Yet, here too, it may be that Service Members perceived their (in)actions were
protecting other Service Members that were not a member of their unit or non-Service members (e.g., civilians). Thus, this dissertation explored whether Service Members’ judgement of appropriateness might be influenced by either the presence of others or the perception that they were protecting others (or both).

Though Williams and Berenbaum (in review) found relationships between psychological problems and both acts of commission and omission, surprisingly little research has attempted to determine what events and/or scenarios Service Members’ consider when investigators ask about wartime actions and/or inactions. Though studies have explored differing wartime experiences among deployed veterans, these studies have focused on acts of commission. For example, Hoge et al. (2004) found that 77% of their sample of veterans from Operation Enduring Freedom (OEF; Afghanistan) and Operation Iraqi Freedom (OIF) had fired their weapon at the enemy, 48% reported being responsible for the death of an enemy combatant, and 28% reported being responsible for the death of a noncombatant. Qualitative research with Service Members also supports the need for understanding Service Members’ experiences in greater detail and suggests that Service Members’ actions are likely varied, diverse, and complex. For example, studies that have asked either veterans (Flipse Vargas et al., 2013) or clinical professionals (Drescher et al., 2011) to depict, in detail, the MIEs they have experienced, witnessed, or heard have revealed that Service Members consider both “direct” experiences (e.g., firing one’s weapon resulting in the death on an enemy combatant) as well as “indirect” forms of exposure (e.g., witnessing other Service Members actions that resulted in physical harm to others).

Given the current lack of clarity concerning which experiences Service Members endorse as acts of commission and/or omission, and what kinds of (in)actions result in physical and/or emotion harm to others, we employed a mixed methods approach. Whereas researchers have
long considered qualitative and quantitative models of inquiry to represent two mutually
exclusive conceptual paradigms, mixed methods research (MMR) judges this either/or mentality
as “too narrow” given the overarching aims of many research endeavors and the limitations of
scientific knowledge more generally (Johnson & Onwuegbuzie, 2004). Thus, MMR argues for a
wide range of methodologies and concepts that can bridge the space between the extremes of
deductive and inductive epistemology that might address the weaknesses of any one research
methodology (in isolation) and allow researchers to more thoroughly investigate phenomena of
interest (Teddlie & Tashakkori, 2010). Correspondingly, noting the diversity and complexity of
Service Members’ wartime experiences, this project sought to explore the viewpoints of Service
Members both through qualitative measures and qualitative interviews. Thus, the aim of using
MMR in this study was to achieve complementarity (or a broader, deeper, and more
comprehensive social understanding that taps into different facets or dimensions of a
phenomenon) in order to more fully assess and understand the various facets, dimensions and
definitions of Service Members’ (in)actions (Greene, 2007; Lee and Greene, 2007).

Finally, to explore Service Members’ (in)actions in greater depth and detail, this
dissertation project also used qualitative interviews to investigate how Service Members’
interpretations form and if/how interpretations change over time. Though researchers have noted
that individuals commonly change their interpretations of actions they regret (e.g., Ratcliffe,
2008), this research has not been conducted with Service Members. We thought it would be
likely for Service Members’ interpretations to change over time as well. For example, a Service
member may initially perceive that harming an enemy combatant is acceptable and dutiful, but
then later (e.g., after leaving the military) feel some regret. Thus, this dissertation investigated
how each of the following may change over time: (a) whether the (in)action is regretted; (b)
perceptions of the appropriateness of their (in)actions; (c) perceptions that their (in)actions broke their own rules of right and wrong; and (d) the impact of their (in)action(s) on their worldviews.

To summarize, the major goals of this dissertation were: (a) estimate the prevalence of Service members’ (in)actions; (b) determine whether Service Members’ levels of regret differ based on the type of (in)action they report; (c) explore whether Service Members further differentiate (in)actions based on: (1) whether their (in)action occurred during combat; (2) whether they were doing their duty during the (in)action; and (3) whether their (in)action improved the likelihood of success of their unit’s mission; (d) explore whether the strong associations between altered worldviews and psychological problems (found by Williams and Berenbaum (in review)) would replicate; (e) investigate whether the presence of others and/or Service members’ perception of protecting others are associated with their perceptions of inappropriateness; (f) investigate whether the presence of others and/or Service members’ perception of protecting others influence (moderate) the association between appropriateness and psychological problems (PTSD, dysphoria, and alcohol/substance use); (g) through qualitative interviews (using a mixed methods approach), gather descriptions of the events that Service members consider to be acts of commission and omission; (h) investigate how Service members’ interpretations of regretted (in)actions that occurred in their roles as Service members change over time, specifically regarding: (1) whether the (in)action is regretted; (2) perceptions of the appropriateness of their (in)actions; (3) perceptions that their (in)actions broke their own rules of right and wrong; and (4) the impact of their (in)action(s) on their worldviews.
CHAPTER 2: STUDY ONE

The major goals of Study one was to: (a) estimate the prevalence of Service members’ (in)actions; (b) determine whether Service Members’ regret scores differ based on the type of (in)action they report; (c) explore whether Service Members further differentiate (in)actions based on: (1) whether their (in)action occurred during combat; (2) whether they were doing their duty during the (in)action; and (3) whether their (in)action improved the likelihood of success of their unit’s mission; (d) explore whether the strong associations between altered worldviews and psychological problems (found by Williams and Berenbaum (in review)) would replicate; (e) investigate whether the presence of others and/or Service members’ perception of protecting others are associated with their perceptions of inappropriateness; (f) investigate whether the presence of others and/or Service members’ perception of protecting others influence (moderate) the association between appropriateness and psychological problems (PTSD, dysphoria, and alcohol/substance use).

Methods

Recruitment

We recruited the majority of participants (94.7%) through Amazon’s Mechanical Turk (MTurk) online data collection tool/resource. We recruited the remaining participants via emails to veteran organizations (e.g., Student Veterans of America, Veterans of Foreign Wars) and organizations that typically have a high proportion of veterans (e.g., training facilities for local and state police). MTurk is a crowdsourcing resource designed to assist with data collection within the context of an open online marketplace (see Shapiro & Chandler, 2013). Psychological researchers have found that MTurk participants are slightly more demographically diverse than other student samples and are significantly more diverse than American college student samples.
(e.g., Buhrmester, Kwant, & Gosling, 2011). In addition, researchers have determined that MTurk participants can be a fruitful resource for recruiting specific populations (e.g., military Service Members) rapidly and relatively inexpensively without compromising data quality and integrity (e.g., Bartneck, Duenser, Moltchanova, & Zawieska, 2015; Lynn & Morgan, 2016).

**Procedure**

Recruitment communications (whether email or through the MTurk website) contained a link that forwarded participants to the questionnaires (via Qualtrics). After completing the consent process, participants then confirmed that they had participated in at least one OEF/OIF/OND deployment (the only inclusion criterion). Participants then answered a series of screening questions (e.g., “match the rank titles to their respective insignia,” “in what state was your basic training base located?”) designed (e.g., utilizing military veteran focus groups) and validated (e.g., by using both veteran and nonveteran samples) to verify the military background of an online sample (Lynn & Morgan, 2016). Similar to previous research, we found that that a large proportion (63.7%) of individuals who accessed the online questionnaires did not proceed past the military verification screening questions (Lynn & Morgan, 2016). Participants who completed all of the questionnaires viewed a screen thanking them for their participation and a randomly generated code that they entered into the MTurk website for to verify their participation. A member of the research team verified that participants: (1) answered at least 7 of the 8 military verification questions correctly; (2) did not answer the questions too quickly\(^3\) nor use the same answer throughout the questionnaires (e.g., answer “Completely Disagree” for

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\(^3\) The first 16 participants were active-duty military personnel who completed the questionnaires in the presence of a member of the investigation team. Their responses were timed to determine how much time, on average, participants would need to complete all of the questionnaires (\(M = 14\) minutes 20 seconds, \(SD = 5\) minutes 41 seconds). We also utilized this information to determine a minimum time limit. Since the quickest responder completed the questionnaires in 7 minutes and 6 seconds, we discarded the responses of participants who completed the questionnaires in less than 7 minutes.
all questions of all questionnaires). A member of the research team then flagged participants’ MTurk IDs to prevent the same individuals from participating more than once. MTurk participants who met all of the verification criteria were then confirmed in the MTurk website and received reimbursement via MTurk’s compensation system. We reimbursed non-MTurk participants (who also met all of the verification criteria) with a gift card.

Participants began the questionnaire portion of the study by answering a set of questions asking about their actions and inactions during their deployment(s) (described below). Participants then read instructions asking them to consider a specific event or series of events that caused them regret. The instructions specified that the event could be something they did (e.g., causing considerable harm to another person) or did not do (e.g., not helping someone in need). The instructions asked participants to reflect on this event(s) when answering the remaining questions (also described below).

Participants

Figure 1 shows the number of participants who: (a) accessed the questionnaires; (b) stopped at the military verification questions; (c) completed the questionnaires but did not answer the verification questions; and (d) completed the questionnaires but answered too quickly or used the same response throughout the questionnaires. Our final sample consisted of 505 military OEF/OIF Service members (19.0% female) who ranged in age from 19 to 63 ($M = 33.9$, $SD = 7.6$). The majority (69.2%) were European American with 14.1% African American, 10.1% Latinx, 4.4% Asian American, and 2.2% American Indian. Our sample included Service members from all of the five branches (50.1% Army, 21.2% Air Force, 14.3% Marines, 13.9% Navy, and 0.6% Coast Guard) and both active duty (80.3%) and Reserve/National Guard

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4 MTurk utilizes a multi-phase process to verify that each worker ID corresponds to a unique person. Thus, an individual cannot acquire multiple MTurk IDs in order to participate in the same study multiple times.
components (19.7%) of the U.S. Armed Forces. The only inclusion criterion for participation in this study was at least one ($M = 1.8$, $SD = 1.2$) OEF/OIF era deployment.

**Materials**

*Acts of Commission and Omission*

Two items modified from the Moral Injury Events Scale (MIES, Nash et al., 2013) measured acts of commission. One question measured *physical* acts of commission (“Another person suffered substantial (a lot) and lasting (more than 1 week) physical harm as a result of something I did”) and one question measured *emotional* acts of commission (“Another person suffered substantial (a lot) and lasting (more than 1 week) emotional harm as a result of something I did”). Items were rated dichotomously (“Yes” or “No”). Two items, modified from the MIES (Nash et al., 2013) measured acts of omission. One question measured *physical* acts of omission (“Another person suffered substantial (a lot) and lasting (more than 1 week) physical harm as a result of something I did not do”) and one question measured *emotional* acts of omission (“Another person suffered substantial (a lot) and lasting (more than 1 week) emotional harm as a result of something I did not do”). Items were rated dichotomously (“Yes” or “No”).

*Regret and additional characteristics/outcomes of (in)actions*

When participants answered yes to any of these four commission/omission questions, they answered four additional questions that explored regret and additional characteristics/outcomes of the (in)action(s). The first question (“I feel some regret as a result of what I did”) asked participants to rate the regret they felt associated with the (in)action (on a

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5 We modified items based on recommendations identified by Frankfurt and Frazier (2016) who noted that questions from the MIES (e.g., “I feel guilt over failing to save the life of someone in the war”) tend to confound exposure to transgressive acts (“I failed to save the life of someone”) with the effects of exposure (“I feel guilt”). Thus, we asked questions exploring acts of commission and omission separately from questions exploring the possible effects of Service Members’ (in)actions.
scale from 1 = “Strongly Disagree” to 5 = “Strongly agree”). The next three questions explored additional characteristics/outcomes of the (in)action, including whether the (in)action: (a) occurred during combat (“This event occurred during a combat or operational incident”); (b) occurred in conjunction with doing the participant’s duty (“During this event I was doing my job or duty”); and/or (c) increased the likelihood of success (“I believe my actions improved the likelihood of the success of my unit’s mission”). All three of the additional characteristics/outcomes questions were measured categorically (“Yes” or “No”).

**Broke rules of right/wrong**

Two items, modified from the MIES (Nash et al., 2013), examined participants’ judgment of whether (in)actions broke an internal moral code (“What I did and/or did not do betrayed my personal values” and “During this event, I broke my own rules of right and wrong”). These items were rated on a 5-point scale (1 = “Strongly Disagree”; 5 = “Strongly Agree”). Scores on the two items were strongly correlated (r = .45, p < .001).

** Appropriateness**

Two items examined participants’ beliefs that their actions were appropriate (“Considering the circumstances, my actions/inactions were reasonable” and “My actions in this event were appropriate given the circumstance”). These items were rated on a 5-point scale (1 = “Strongly Disagree”; 5 = “Strongly Agree”). Scores on the two items were strongly correlated (r = .56, p < .001).

**Altered worldviews**

Six items (α = .83) of the Stressful Life Experiences Scale (ISLES; Holland, Currier, Coleman, & Neimeyer, 2010) (e.g., “My understanding of how the world works has never been the same since this event”, “Since this event, my beliefs in what is right and wrong have
changed”) examined participants’ reports of the degree to which their perceptions of themselves, others, and the world had changed in response to their (in)action(s). Items were rated on a 5-point scale (1 = “Strongly Disagree”; 5 = “Strongly Agree”). The items were altered slightly, asking participants to think of one specific events or series of events when considering their answer.

**Guilt/Shame**

Five items (α = .72) used in past research (e.g., Thompson & Berenbaum, 2006), measured guilt (e.g., “I wish I could ‘make things right’) and shame (e.g., “I believe that I am a bad person”). Items were rated on a 5-point scale (1 = “Strongly Disagree”; 5 = “Strongly Agree”).

**Presence of Others/Protecting Others**

One question, developed by the authors, asked whether others were present at the time of the event (“Other people were present when this event occurred.”). One question, developed by the authors, asked whether the participant was protecting others during the event (“During this event, I was protecting others). Both items were rated dichotomously (“Yes” or “No”).

**Combat and post combat experience**

The 17-item (α = .95) Combat Experiences subscale of the Deployment Risk and Resilience Inventory (DRRI-2; Vogt et al., 2013) explored combat (e.g., “I went on combat patrols or missions”). The 13-item (α = .94) Post-Battle Experiences subscale of the DRRI-2 (Vogt et al., 2013) explored post-combat experiences (e.g., “I saw the bodies of dead civilians”).

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6 Though we did ask participants to indicate different kinds/types of people who were present and/or being protected (other Service Members in one’s unit, other Service members not in one’s unit, and other non-Service Members (e.g., civilians)) there was no statistical difference between the different kinds/types of others present and/or protected.
The DRRI-2 has demonstrated strong internal consistency and criterion-related validity (Vogt et al., 2013). Items were rated on a 6-point scale (1 = “Never; 6 = “Daily or almost daily”).

**PTSD**

PTSD symptoms over the past month were measured using the 20-item (α = .97) PTSD Checklist for DSM-5 (PCL-5; Weathers et al., 2013). PCL-5 items reflect both changes to existing symptoms and the addition of new symptoms in DSM-5 (American Psychiatric Association, 2013). Items were rated on a 5-point scale (0 = “Not at all”, 4 = “Extremely”). The PCL-5 has very good internal consistency and correlates strongly with other measures of PTSD symptoms (Dickstein et al., 2015). Overall, our sample reported high scores (M = 39.1, SD = 18.3); the recommended cut-off for PTSD in a Veteran sample is 33 (Bovin et al., 2016).

**Dysphoria**

Symptoms of dysphoria over the past two weeks were measured using the 10-item (α = .95) dysphoria subscale of the Inventory of Depression and Anxiety Symptoms (IDAS; Watson et al., 2007). The dysphoria subscale (e.g., “I felt depressed” and “I felt inadequate”) of the IDAS has shown strong internal consistency, convergent and discriminant validity with psychiatric diagnoses and self-report measures; and short-term test–retest reliability within both community and psychiatric patient samples (Watson et al., 2007). Items were rated a 5-point scale (1 = “not at all”, 5 = “extremely”). Overall, our sample reported average scores (M = 20.7, SD, 9.6) in comparison to community samples of adults (Watson et al., 2007).

**Alcohol and Substance Use**

The frequency (how often) and quantity (how much) of alcohol use was measured using the three item (α = .81) Alcohol Use Disorder Identification Test (AUDIT-C; Saunders, Aasland, Babor, De la Fuente, & Grant, 1993). Each question of the AUDIT-C utilizes a unique 4-point
response scale. The AUDIT-C has sound validity and internal consistency, even when used in different settings and populations (Reinert & Allen, 2007). The frequency of substance use other than alcohol (e.g., tobacco, marijuana) during the past two weeks was measured using the 11-item ($\alpha = .86$) Alcohol Smoking and Substance Involvement Screening Test modified by the National Institute on Drug Abuse (NIDA-Modified ASSIST; National Institute on Drug Abuse, 2012). The NIDA-Modified ASSIST has demonstrated good or excellent test-retest reliability and has shown sound validity in terms of DSM-5 diagnostic assessment for substance use disorders (Humeniuk et al., 20-8). Items were rated a 5-point scale (1 = “not at all”, 5 = “Nearly every day”). Given the high correlation between alcohol and other substance use ($r = .43$, $p < .001$), we computed a single “Alcohol and Substance Use” composite score by combining the scores from the alcohol and substance use measures. Overall, our sample reported somewhat-risky alcohol use ($M = 3.3$, $SD = 2.9$; Bush, Kivlahan, McDonell, Fihn, & Bradley, 1998) and low-to-moderate substance use ($M = 6.1$, $SD = 8.3$; WHO ASSIST Working Group, 2002).

Results

Characteristics of (In)actions

We began by exploring the prevalence of endorsed (in)actions. Roughly half (49.3%) of our sample reported at least one type of (in)action. The most common type of reported (in)actions were committed acts resulting in emotional harm to others (Commission-Emotional; 34.2%) followed by acts of commission that resulted in physical harm to others (Commission-Physical; 29.7), omitted acts resulting in physical harm to others (Omission-Physical; 22.1%), then omitted acts resulting in emotional harm to others (Omission-Emotional; 14.1%). Furthermore, 43.4% of the participants who reported an (in)action endorsed only one type and
the remaining 56.6%, 40.2% endorsed two types, 9.6% endorsed three types, and 6.8% endorsed all four types.

Next, we explored whether different types of inactions were differentially associated with: (a) the amount of regret experienced; (b) the likelihood of the (in)action occurring during a combat or operational incident; (c) the likelihood of the (in)action occurring in conjunction with doing their job or duty; and (d) the likelihood that the (in)action increased the likelihood of the success of their unit’s mission. The numbers presented in Table 1 represent means/proportions for all individuals who reported each of these additional variables for each type of (in)action. To statistically test whether these additional variables were differentially associated with the different types of (in)actions, we conducted two types of analyses. First, we compared the mean/likelihood of individuals who reported one type of (in)action but not another type of (in)action (e.g., reported commission – physical but did not report commission - emotional) with the mean/likelihood of individuals who reported the inverse (e.g., reported commission – emotional but did not report commission – physical). We then conducted independent sample t-tests (for means) or chi-square tests (for proportions). Second, we conducted paired sample t-tests (for means) or McNemar tests (for proportions) among individuals who reported: (1) both Commission-Physical actions and Omission-Physical inactions ($N = 49$); (2) both Commission-Emotional actions and Omission-Emotional inactions ($N = 30$), (3) both Commission-Physical and Commission-Emotional actions ($N = 83$); and (4) both Omission-Physical and Omission-Emotional inactions ($N = 30$).

The mean regret scores (and standard deviations) for each type of (in)action are shown in the top half of Table 1. The results of the independent samples t-tests (comparing the means regret scores of participants who reported one type of inaction but not the inverse type) showed
that participants reporting a Commission-Physical action \((N = 133)\) endorsed significantly less regret than participants reporting a Commission-Emotional actions \((N = 153, t(284) = -2.08, p = .04)\) or Omission-Physical inactions \((N = 99, t(230) = -2.83, p = .005)\). Similar, tests comparing the mean regret score of other types of (in)actions (e.g., comparing Omission-Emotional \((N =63)\) inactions with Omission-Physical inactions) revealed no significant differences.

The results of the paired samples t-tests (exploring the difference in mean regret scores for individuals reporting more than one type of (in)action) showed that, among participants who reported both Commission-Physical and Omission-Physical (in)actions, the mean regret scores for Commission-Physical actions \((M = 3.7, SD =1.0)\) were again significantly lower than the mean regret scores for Omission-Physical inactions \((M = 3.9, SD = 1.1, t(48) = -2.02, p = .04)\). No significant difference in regret scores was found among participants reporting any of the other pairs of (in)actions.

The bottom half of Table 1 shows the proportion of participants who endorsed (i.e., answered “yes”) the additional characteristic/outcome variables (occurring during combat, doing one’s job/duty, and increasing the likelihood of success) for each type of (in)action. The results of chi-square tests (comparing participants who endorsed one type of (in)action but not the inverse type of (in)action) once again revealed that Commission-Physical actions differed significantly from the other types of (in)actions. Specifically, participants reporting Commission-Physical actions were significantly more likely to indicate that their action(s) improved the success of their unit’s mission than participants reporting only Commission-Emotional actions \((\chi^2(1, N = 286) = 5.02, p = .02)\) and participants reporting only Omission-Physical inactions \((\chi^2(1, N = 232) = 20.41, p < .001)\). Participants reporting Commission-Physical actions were also significantly more likely to indicate that their action(s) occurred during a combat or
operational incident than participants reporting Commission-Emotional actions ($\chi^2(1, N = 286) = 13.62, p < .001$).

Next, the results of the McNemar tests revealed that participants reporting both a Commission-Physical action and an Omission-Physical inaction, were much more likely to report that their Commission-Physical action improved the success of their unit’s mission (77.6%) than their Omission-Physical inaction (53.1%, $p = .002$). No other pairs of (in)actions were significantly differentially associated with any of the additional characteristic/outcome variables.

Next, we examined the relationship between the different types of (in)actions and psychological problems (i.e., PTSD, dysphoria, and alcohol/substance use). First, we coded a “yes” response to any of the (in)action questions as a 1 and “no” responses as a 0. Next, we computed Pearson correlations to determine if participants who endorsed any or all of the (in)actions had higher levels of psychological problems (i.e., as evidenced by positive correlations). The left half of Table 2 shows the zero-order correlations, and the right half of Table 2 shows the partial correlations (removing shared variance with age, gender, number of deployments and combat/post combat experience). As expected, participants who endorsed any type of (in)action, also endorsed higher levels of PTSD, dysphoria and alcohol/substance use. We found it noteworthy, however, that alcohol/substance use demonstrated weaker associations with all of the (in)action types when compared to both PTSD and dysphoria. Also, whereas Omission-Physical inactions were more-strongly associated with psychological problems than Omission-Emotional inactions, the opposite trend was evidenced among acts of commission (Commission-Physical actions had similar or weaker associations with psychological problems than Commission-Emotional actions). When taking into account other factors (i.e., age, gender,
number of deployments and combat/post combat experience) only acts of Omission (Physical and Emotional) inactions continued to be significantly associated with all three psychological problems. Notably, when the other factors were considered, Commission-Physical actions ceased to be significantly associated with any psychological problems.

We then conducted three hierarchical regression analyses (predicting PTSD, dysphoria and alcohol/substance use) entering all four types of (in)actions simultaneously to determine if one or more types of (in)action(s) predict psychological problems independently of other types of (in)action(s). The left half of Table 2 shows the results when all four types of (in)actions were entered in the first step, and the right half of Table 2 shows the results when the (in)actions were entered in the second step after entering age, gender, number of deployments and combat/post combat experience in the first step. Only Omission-Physical inactions predicted all three forms of psychological problems even when the additional factors were taken into account. By contrast, Commission-Physical actions predicted PTSD, but not dysphoria or alcohol/substance use, independently of other types of (in)actions; further, Commission-Physical actions ceased to predict any of the psychological problems when the additional factors were taken into account. When exploring both sides of Table 2, (in)actions resulting in emotional harm to others (Commission-Emotional and Omission-Emotional) predicted comparable increases in PTSD and dysphoria while neither significantly predicted alcohol/substance use.

We also wanted to explore whether (in)actions that were regretted were more strongly associated with psychological problems than were (in)actions that were not regretted. To do this, we first divided (in)actions into those that were regretted and not-regretted (considering only participants who reported a 4 or 5 (“agree”, “strongly agree”) on the regret question as endorsing regret). Next, we used t-tests to compare participants who endorsed regretting their (in)action(s)
with participants who did not endorse regret. Our results are shown in Table 3. Yet again, Commission-Physical actions differed from other types of (in)actions. Participants who regretted Commission-Physical actions had significantly higher levels of both PTSD and dysphoria than participants who did not regret Commission-Physical actions. In fact, regretted Commission-Physical actions were associated with higher levels of psychological problems than any other types of (in)actions, whether regretted or not. Among the other types of (in)actions, only participants reporting Commission-Emotional actions differed significantly in their reported levels of a psychological problem based on whether they regretted their (in)action; participants who regretted Commission-Emotional actions endorsed higher levels of dysphoria than participants who did not regret Commission-Emotional actions.

**Meanings and Interpretations**

We then investigated whether participants who did and participants who did not report any type of (in)action endorsed different levels of breaking their own rules of right/wrong, altered worldviews, perceived appropriateness, guilt/shame, and psychological problems. Table 4 shows our results. The outcome of independent sample t-tests revealed that participants who did report any type of (in)action reported significantly higher levels of psychological problems, guilt/shame, and all but one of the interpretations/meanings variables. Interestingly, participants who did report any type of (in)action did not endorse different levels of perceived appropriateness when compared to participants who did not report any type of (in)action.

Next, we explored the degree to which breaking one’s rules of right/wrong, altered worldviews, and perceived appropriateness were associated with psychological problems. The left half of Table 5 shows the zero-order correlations, and the right half of Table 5 shows the partial correlations (removing shared variance with age, gender, and combat/post combat.
experience). Since prior research has already documented the importance of guilt/shame (e.g., Leskela, Dieperink, & Thuras, 2002), Table 5 also includes guilt/shame in order to illustrate the strength of the associations between the interpretations/meanings variables and psychological problems relative to guilt/shame. Overall, there was consistent evidence of most meaning/interpretations (as well as guilt/shame) being associated with psychological problems. Once again, participants’ perception of the appropriateness of their (in)action(s) was noteworthy given that it, alone, was not directly associated with any of the measured psychological problems. Alcohol/substance use was, again, less strongly associated with any/all of the predictor variables when compared to PTSD and dysphoria. Though guilt/shame had stronger associations with psychological problems than breaking one’s rules of right/wrong ($Z = 3.16, p < .001$), altered worldviews were even more strongly associated with psychological problems than guilt/shame ($Z = 5.43, p < .001$). As can be seen in the right half of Table 5, when removing shared variance with age, gender, and combat/post combat experience, each of the associations that were significant continue to be significant.

We also conducted three hierarchical regression analyses (predicting PTSD, dysphoria and alcohol/substance use) entering all three of the meanings/interpretations, as well as guilt/shame, simultaneously to determine which, if any, of these variables independently predicts psychological problems. The left half of Table 4 shows the results when all meanings/interpretations and guilt/shame were entered in the first step, and the right half of Table 4 shows the results when the meanings/interpretations and guilt/shame were entered in the second step after entering age, gender, number of deployments and combat/post combat experience in the first step. Only altered worldviews predicted increases in any of the psychological problems independently of the other meaning/interpretation variables and
guilt/shame. Indeed, as depicted in both the left and right sides of Table 4, altered worldviews predicted elevated levels of all three psychological problems even when age, gender, number of deployments and combat/post combat experiences were considered.

Given that perceived appropriateness alone was not endorsed at a significantly different level by participants who reported an (in)action (when compared to participants who did not report an (in)action) and noting that perceived appropriateness was the only meanings/interpretations variable that was not strongly associated with psychological problems, we decided to explore perceived appropriateness in greater depth. First, we tested our hypothesis that Service Members may judge the appropriateness of their (in)actions differently based on whether other people are present or if they perceive their (in)actions are protecting others (hereafter: protecting others). To begin, we explored the proportion of participants who endorsed that others were present and whether they were protecting others. Interestingly, a significant majority (81.2%) of participants reported that others were present during their (in)action(s) ($\chi^2(1, N = 505) = 198.13, p < .001$) while a smaller majority (57.0%) endorsed that they were protecting others ($\chi^2(1, N = 505) = 9.98, p = .002$)

We then conducted hierarchical regression analyses (using centered variables) to explore whether the presence of others or protecting others was a better predictor of perceived appropriateness above and beyond age/gender, number of deployments and combat/post-combat experience. We entered age and gender in the first step, number of deployments and combat/post-combat experience in the second step, and alternated between putting the presence of others and protecting others in the third and fourth steps. Collectively, even after taking into account age, gender, number of deployments, and combat/post-combat experience, protecting others significantly predicted perceived appropriateness above and beyond the presence of others.
However, the presence of others did not predict perceived appropriateness above and beyond protecting others ($\beta = .06, \Delta R^2 = .004, p = .16$).

Finally, we considered the possibility that protecting others may moderate the association between perceived appropriateness and psychological problems. We conducted three hierarchical regression analyses predicting PTSD, dysphoria, and alcohol/substance use entering predictors in the following order: (1) protecting others and perceived appropriateness; and (2) protecting others x perceived inappropriateness. The interaction term improved the prediction of PTSD ($\beta = -.25, \Delta R^2 = .01, p = .007$) and dysphoria ($\beta = -.24, \Delta R^2 = .01, p = .009$), but did not improve the prediction of alcohol/substance use ($\beta = -.12, \Delta R^2 = .00, p = .21$). Slope tests were used to reveal the nature of the interactions (Aiken & West, 1991). Figure 1 presents the results of these analyses. Higher levels of perceived appropriateness was significantly associated with lower levels of PTSD and dysphoria among Service Members who endorsed protecting others but not among Service Members who did not endorse protecting others.
CHAPTER 3: STUDY TWO

The goal of this study was to: (a) gather descriptions of the events that Service Members consider to be acts of commission and omission; (b) investigate how Service Members’ interpretations of regretted (in)actions that occurred in their roles as Service Members change over time, specifically regarding: (1) whether the (in)action is regretted; (2) perceptions of the appropriateness of their (in)actions; (3) perceptions that their (in)actions broke their own rules of right and wrong; and (4) the impact of their (in)action(s) on their worldviews.

Participants

Participants were 14 (7% female) U.S. military veterans who had completed at least one deployment ($M = 1.6$, $SD = 1.2$) in the recent wars in Iraq and/or Afghanistan during the Global War on Terror. Subjects ranged in age from 21 – 53 ($M = 25.3$, $SD = 7.1$). The sample consisted of veterans from European American ($n = 8$), African American ($n = 3$), Hispanic American ($n = 2$) and Asian American ($n = 1$) backgrounds. Our sample included Service Members from four branches (Army: 5, Marines: 4, Air Force: 3, Navy: 2) of the U.S. Armed Forces. All subjects were recruited from another study (partially designed by Christian Williams and Howard Berenbaum) designed to create and evaluate the efficacy of two alternative interventions intended to support and facilitate Veterans’ transition into an academic setting. Half of our sample were no longer serving in the military while one-quarter ($n = 3$) were still serving full time (Active Duty) and the other one-quarter were serving part-time (Reserves, National Guard).

Hoping to add greater detail about each of the different kinds of (in)actions explored in the questionnaire study, participants were chosen from a larger sample of interviewed Service Members ($N = 38$) for inclusion in this study based on the type of (in)action they depicted.
Correspondingly, given that another aim of the interviews was to gain greater insight and understanding about the (in)actions of Service Members, the participants who were included in this analysis were also chosen based on their ability to coherently describe a type of event while offering details/information that were exceptionally rich and insightful. Whereas some participants were chosen based on their ability to clearly depict a type of event that was representative of an occurrence/incident that was more-common (e.g., communicated by multiple participants), others were chosen given the unique nature or type of event they recounted.

**Qualitative Interview**

Drawing on the limited clinical evidence and available research findings at the time of this study (e.g., Drescher et al., 2011; Litz et al., 2009; Shay, 1995), interview questions (see Appendix B) were prepared by Christian Williams, Howard Berenbaum, and Jennifer Greene. Using guidelines proposed by Greene (2007) the interviews consisted of three sections: (1) a rich description (including when the regretted event happened, who else was present, what was the landscape or terrain, etc.) of the event that caused the Service Member to feel regret; (2) the participants emotional valence at the time of the event; and (3) how the participant has made sense of the event since it happened. Moreover, the semi-structured design of the interview questions were designed to allow for a back-and-forth process that permitted the participant to describe their experience in their own terms while allowing the interviewer to ask clarifying questions. Interviews were conducted by Williams, who possesses extensive experience working with military veterans. The duration of the interviews varied (range: 40 – 110 minutes) with an average interview time of 65 minutes per participant.

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7 Although we considered asking participants of the quantitative portion of the study to describe (voluntarily) their (in)action(s), we determined that the details of Service Members’ accounts were likely sensitive and unpleasant. As a result, we only used in-person interviews to gain additional insights and understandings of the events corresponding to Service Members’ (in)action(s).
Part one of the interviews utilized an explorative design employing the critical incident (e.g., an event that affects subsequent behavior and actions) technique (CIT, Flanagan, 1954). The semi-structured interview asked participants to offer descriptions of regretted wartime events and included follow up questions that explored participants’ understanding and interpretation of specific (in)actions. After the consent and introduction phase\(^8\), the first set of questions asked participants to describe a regretted event or events that occurred during their military service. While the initial questions allowed participants to reflect and describe events and their (in)actions that occurred during these events, these descriptions will also allowed for “posturing” to occur, grounding the participant in the time and space of the event to allow for greater introspection regarding their subjective experience (e.g., feelings, interpretations; Sandelowski, 2000; Wolcott, 1994). After the participant recounted a description of an event (or events), Williams then asked questions about the participant’s interpretation of the event and their (in)actions. Questions asked participants to describe their feelings at the time of the event and follow-up questions asked participants to describe their current feelings about the event.

The next portion of the interview asked participants to consider why their feelings have or have not changed. Questions explored whether changes occurred at a specific moment (e.g., when they left the military) or if changes occurred gradually. Follow-up questions also asked participants to consider why their interpretations changed when they changed (e.g., did the change correspond with a specific lifetime occurrence such as gaining a promotion in the military, leaving the military, or returning to school). Williams then asked participants to consider their interpretations of their (in)actions. Specifically, questions explored participants’ perceptions of having broken their own rules of right and wrong and whether their (in)actions

\(^8\) Participants will be informed during the consent phase and before the interview that the investigator will interview the participants using a digital audio recorder.
altered their conceptualization of themselves, others, and the world. Williams asked whether the participant perceived their (in)action as appropriate at the time, who else was present during the event(s), and whether the presence of others and/or the perception of protecting others shaped their interpretation of the event. For each of the interpretations (breaking rules of right/wrong, altered worldviews, perceived appropriateness), Williams asked participants to consider whether their judgments have changed over time and, if so, how they’ve changed. Throughout the interview, prompts were used selectively to encourage elaboration and/or clarify responses when necessary (e.g., “Please say more about that.”). Participants were also informed that they could stop the interview at any point and the interviewer was attuned to shift questions and/or not probe deeper in instances where the participants were becoming unduly distressed.

Since we recognized that Service Members’ interpretations and understandings of events and their (in)actions would likely be complex, we assumed some vagueness and even contradiction in the narratives gained from the interviews. Thorne, Kirkham, and O’Flynn-Magee (2004) have argued that qualitative interviewers should assume that participants will present diverging and even contradictory themes as they discuss their attempts to interpret past events. For example, it may be that some Service Members’ feelings about the event(s) they recount have changed little (or not at all) over time, whereas other Service Members may have experienced differing emotions at differing times in response to their (in)actions. For this reason, Williams utilized a dialectic stance throughout the interview process encouraging “generative insights attained through a respectful conversation” (Greene, Benjamin, & Goodyear, 2001, p. 79). It was hoped that, by allowing inconsistencies in participant’s stories, a complex description of Service Members’ interpretation process would emerge. Indeed, a major goal of the interviews was to allow participants to discern their understanding and interpretation through
different lenses, perspectives, and stances (e.g., how they felt about the event at the time and how they feel about the event now) while allowing participants to recount and recognize how their interpretations have changed (and perhaps even contradicted each other) over time (Greene, 2007).

Data Analysis

The process of developing the content categories entailed three initial phases. Qualitative interviews were first recorded in an audio format and transcribed into written form by undergraduate students in clinical psychology with interests in working with this population. Each of the transcribed interviews was checked for accuracy by Williams. Williams then identified similar themes across participants’ depictions of their (in)action(s) during their military service that correspond to three categories: (a) acts of commission; (b) acts of omission; or (c) both an act of commission and act of omission. To identify thematic elements of participants descriptions of their (in)action(s), Williams engaged a cross case analysis following an incremental step-wise process. Beginning with open thematic coding, Williams began by “taking data and breaking it down analytically” (Patton, 2014, p. 113), identifying larger themes within the participant’s account in order to classify Service Members’ (in)action(s) within one of the four categories. Next, Williams identified themes or features within each category that were shared by multiple participants’ narratives. Williams then returned to the descriptions of Service Members’ (in)action(s) for more specific word-level themes (themes within themes). These analyses allowed for a clearer picture of the differing kinds (in)actions and events that Service Members may regret.

The second step identified themes corresponding to Service Members’ interpretation of their (in)actions. Williams utilized an inductive analytic strategy. Since the major interpretive
categories were already identified (perceived inappropriateness, presence of others, protecting others, breaking one’s rules of right/wrong, and altered worldviews), Williams analyzed interviews to identify common and diverging themes about Service Members’ interpretations at the time of their (in)actions and changes to Service Members’ interpretations over time. Williams will also identify other interpretive themes that participants reference during the interviews. For example, in addition to analyzing participants responses to questions that specifically asked about interpretations, Williams also explored participants descriptions of the background leading up to their (in)action(s). These sections of text were often significant and critical in capturing salient themes relating to the understandings and meanings that Service Members associate with their (in)actions.

Using strategies suggested by Miles and Huberman (1994), Williams organized data by creating a time-ordered matrix (for an example, see Figure 2). For each of the interpretation categories, the matrix contained a description of participants’ interpretations starting at the time of the event and at other times since the event. The matrix also attempted to include themes from the participants’ accounts that explain why their interpretation changed when they changed (e.g., gaining a promotion in the military, leaving the military, returning to school). Williams then followed Johnson’s (2004) steps of analytic induction in order to interpret participants’ interpretations of their (in)actions over time. For example, a partial interpretation of the information contained in figure 1 may conclude that the Service Member was immediately troubled by their (in)action corresponding with unpleasant alterations to their understanding of themselves, others, and/or the world, yet, later in their military career, they interpreted their (in)action in a way that reshaped their viewpoint allowing them to enhance their sense leadership of others. Hence, the inductive analysis will endeavor to draw conclusions and identify patterns
of how participants’ interpretations change (or do not change) over time and why these changes occur.

As a third phase, meaning units were focused (Yeh & Inman, 2007) or organized into descriptive content categories by the first author via an inductive, iterative process that involved comparing and differentiating each meaning unit with the other meaning units. Meaning/interpretation themes were also compared with other meaning/interpretation themes to consider common trends in how Service Members consider their (in)action as well as common paths in how Service Members’ interpretations develop and change (or don’t change) over time. Throughout analysis, Williams engaged Fassenger’s (2005) constant comparison method. Specifically, when themes were identified for further consideration, Williams consistently returned to the transcripts to verify, clarify, and describe potential themes in greater depth and detail. As also advised by the constant comparison technique, Williams continually checked to ensure that the codes remained consistent and closely related to the direct words of the participants.

Results

Descriptions of (In)actions

The following accounts offer depictions of participants’ (in)actions (please note that some accounts contain depictions of violence and harsh language). To protect the identity of participants, pseudonyms do not reflect participant’s race or branch of service. In order to allow for greater complementarity (permitting the findings from Study 2 to offer additional insight and clarity to the interpretations and findings of Study 1), accounts were categorized into the separate types of (in)actions explored in Study 1: (1) Commission-Physical (CP) actions; (2) Commission-Emotional (CE) actions; (3) Commission Physical and Emotional (CPE); (4)
Omission-Physical (OP) inactions; (5) Omission-Emotional (OE) inactions; (6) Omission Physical and Emotions (OPE); and (7) acts of commission and omission (CO) resulting in physical and emotional harm.⁹ We designed pseudonyms that would allow the reader to retain pertinent information about each participant throughout the narratives below (e.g., Craig the Convoy Gunner is the participant who describes an event where he was the gunner in a convoy). Participants’ pseudonyms are followed by a letter-number combination to remind the reader of the type of (in)action reported by the participant (e.g., OP-1 indicates that this is the individual that gave the first account of an Omission-Physical inaction – see accounts below).

Our analysis also revealed that participants’ accounts differed based on who was impacted by their (in)action(s). Participants distinguished between three different groupings of others, namely: (a) other non-Service Member individuals (e.g., civilians, enemy combatants); (b) fellow Service Members (e.g., other members of the participant’s military unit); or (c) both non-Service Members and Service Members. Thus, in addition to categorizing accounts based on whether participants (in)action(s) involved commission or omission (or both) and whether the (in)action resulted in physical or emotional harm (or both), we also classified accounts based on the who was impacted by participants’ (in)action(s).

**Act of Commission resulting in Physical Harm**

Acts of commission that resulted in physical harm to others (Commission-Physical actions) were the most often-reported type of (in)action. For all accounts of Commission-Physical actions, participants referred only to the impact their action had on other non-Service Member individuals. For example, two participants reported firing on civilian vehicles. One

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⁹ Though acts of commission and omission resulting in physical and emotional harm (category #7) were not explored directly in Study 1, some participants’ accounts depicted both commission and omission. These accounts were categorized into their own, separate, category to allow for further exploration (e.g., ways in which they were similar and different to other categories of (in)actions).
Veteran, Greg the Gunner (CP-1), was 20-years-old at the time of the incident explained;

_I was on route Irish going from BIAP (Baghdad International Airport) to the green zone._

_We were running a 3 Humvee convoy transporting a Cpt and two LT's (two officers) up to another base I was in the point gun truck (the truck in the front) up in the turret. We encountered some heavy traffic and there was this one car that just would not move, in fact they drifted directly in front of us and slowed down almost "brake checking" us. There was far too heavy of a civilian area around to engage with the 50 cal (a weapon that fires large ammunition against armored vehicles or a large number of enemy combatants) so I reached down in the truck grabbed my m16 (rifle) and put one round right through the back windshield right into the base of the neck of the person driving, the car swerved off into a ditch and we drove past._

Another participant, Charlie at Checkpoint (CP-2), was 24 at the time of the event. He explains:

_We were in Iraq, slightly northwest of Baghdad. A car was speeding toward us, and believing it to be a VBIED (Vehicle-borne Improvised Explosive Device), we engaged it with literally every weapon we had at the scene. When we approached the car, we learned that the car was full of noncombatants. It turned out that a young driver was at the wheel transporting some doctors from somewhere in the Anbar province into Baghdad. Being inexperienced and frightened, the driver stomped on the accelerator instead of the brake when we signaled for him to stop. Two of the occupants were killed immediately, and the other two were very badly wounded. I never learned what happened to the wounded, but I suspect that they probably ended up dying before or during surgery._

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In addition to describing harm to other non-Service Members, these two participants also noted that combat scenarios in Iraq and Afghanistan often have an added layer of complexity caused by the uncertainty of which individuals and/or objects may be sources of potential threat.

The other participant who reported a Commission-Physical action, Sean the Sniper (CP-3), was 20 at the time of the incident, described a Commission-Physical action:

*I was a sniper positioned on a plateau providing oversight for a nearby unit. From my hidden position, I was watching two teenage males carrying a plastic bag next to a hole that appeared to hold an IED (Improvised Explosive Device). A car came down the road and dropped off two guys and continued to drive away. One was carrying an AK (the AK-47 is the most common weapon among enemy combatants in Iraq and Afghanistan) and the other hopped into the hole to wire the IED. About 20 minutes later the car returned and picked up the two men but not the teenagers. The teenagers handed the men the plastic bag which held the detonator for the bomb. I thought the car would drive towards my position but instead turned around towards the opposite direction. I opened fire. The two passengers died and the driver survived by getting the car under an overpass. I then fired at the teenagers and they ran to a nearby canal to take cover. I called down to my unit to tell them the location of the IED and I flushed out the teenagers, using my weapon to get them to flee towards my unit.*

Similar to the other participants who reported a Commission-Physical action, Sean the Sniper described uncertainty about whether the individuals he was observing posed a threat.

Furthermore, the details from participants who reported a Commission-Physical action all depict combat-related incidents where they engaged (used their weapon against) individuals who they believed were the enemy.
Acts of Commission resulting in Emotional harm

One example of a Commission-Emotional action came from a high ranking enlisted Soldier, Sergeant Sam (CE-1), who was 42 years old at the time and described the difficulties of managing a military unit:

*I felt like I was dealing with a bunch of 10 year-olds who were away from home for the first time and viewed the deployment as a trip to summer camp, not a war zone. It quickly turned into a bitch session about working conditions and post assignments. I personally did not feel that the working conditions were bad at all, and felt that the complaints were not valid. I too quickly lost my patience and erupted in a string of obscenities and verbal attacks on those complaining.*

The other depiction of a Commission-Emotional came from Ben the Berater (CE-2), who was 22 (and not in a leadership position) at the time of the incident. Ben shared another example of berating other Service Members:

*I caused emotional harm to another military member, whom I felt was not mature enough nor suited to be in the military. My comments were pretty harsh and my shipmates really started to give him a hard time too. One day, he was just gone. So, I guess I’m saying that what I did contributed to someone deserting the military. The military does not take that shit lightly. But he’d rather face a court-martial than face the people that were supposed to have his back.*

Whereas participants depicted all Commission-Physical actions as involving non-Service Members (e.g., either real or perceived threat from enemy combatants), depictions of Commission-Emotional actions only involved other Service Members.
Act of Commission resulting in Physical and Emotional harm

The one depiction of an act of commission that resulted in physical and emotional harm to others came from a Scott the (anti) Scavenger (CPE-1) who was 20 at the time of the incident:

My unit came upon a family that was scavenging from the ASP (Ammunition Service Point or location for procuring ammunition and supplies). When we tried to stop them fleeing in a vehicle, we shot at the vehicle. The family’s little girl was shot in the head. The other family members were panicking and our medic flying with us that day was the newest we had. He became very sad and started to panic as he tried to help the girl and the other injured family members. I had to talk him through each standard of care like I was giving information to a kid.

While this participant depicts harm to non-Service Members when describing the Commission-Physical action, the Commission-Emotion action is depicted in terms of harm to a fellow Service member.

Act of Omission resulting in Physical harm

The one example of an Omission-Physical inaction came from Conner the Convoy Commander (OP-1) who was 31 at the time.

I was a convoy commander and did not do a good job of planning our a supply trip because I’d already made the same trip multiple times. I left a lot of the planning to the younger guys and was pretty much on auto pilot. The convoy was ambushed and we lost two men.

Thus, whereas Commission-Physical actions tended to involve non-Service Members, Omission-Physical inactions only involved fellow Service Members.
Act of Omission resulting in Emotional harm

Two participants described an Omission-Emotional inaction. The first came from, Henry who didn’t Help (OE-1), who was 22 at the time:

The events occurred at my first duty station involving my immediate supervisor. He was an alcoholic. He would often come to work having obviously consumed alcohol and would drink on the job. Every subsequent hour he slurred more and more. He even used to go up to the conference room with the walkie-talkie and nap on shift. I was among many others knew about his addiction and did nothing to help him. Eventually during a deployment to Saudi Arabia (I was in a different squadron as was by then) he got sent home due to his problem. My friend’s issues continued for quite some time, and I’m sure they contributed to his multiple divorces since.

The other Omission-Emotional account comes from Roberta who didn’t Report (OE-2) who was 23 at the time of the incident.

I had a senior NCO make a serious advancement towards me. I blew him off and didn’t do anything about it. I didn’t want to make waves. I should’ve elevated it up the chain and said something. I later discovered that, after I left the unit, the same senior NCO had harassed other girls.

Thus, similar to Omission-Physical inactions, participants who reported an Omission-Emotional action described the harm of their inactions in terms of fellow Service Members.

Act of Omission resulting in Physical and Emotional harm

Similar to acts of commission that resulted in both physical and emotion harm, acts of omission resulting in both physical and emotional harm to others involved both non-Service
Members and fellow Service Members. The first depiction came from Blake at the Blast site (OPE-1) who was 21 at the time of the incident:

We had a mass casualty situation caused by a VBIED and had over 20 injured and dead. Because we were a small detachment we had to prioritize who got treatment and who didn’t. After everything settled down a bit, I noticed that we were unable to help a family of locals who lost 3 children and their mother.

The other medic, Mike the Medic (OPE-2), was 20 at the time of the incident and described a similar scenario where both U.S. military personnel and civilians were injured due to a VBIED:

The market of the nearby village was hit by an explosive hidden in van that was parked in the middle where the most people would be. A lot of people were hurt or killed. I was in my barracks and heard the bomb. I asked others what happened and no one knew. While I was trying to get more info, I missed the announcement that a medical convoy was leaving to help. I missed the convoy and was left, stuck, and unable to help. I tried to get a vehicle so I could catch up to the others, but was not allowed to leave. We lost some of our own who were providing security for the village and a lot of civilians died because they didn’t get medical help. I believe I lost the respect of a lot of other people because I didn’t do anything.

Though other participants who reported acts of omission only referred to fellow Service Members, these depictions of inactions resulting in both physical and emotional harm to others describe harm to both non-Service Members and fellow Service Members. It is worth noting, however, that both accounts in this category were recounted by military medics. Since their responsibilities require that they both confront the enemy (to include using deadly force when
necessary) while, at the same time, providing medical aide to both fellow Service Members and injured non-Service Members, combat medics often face stressors that other military specialties do not.

Acts of Commission and Omission

Three participants described (in)actions that were both acts of commission and omission. All scenarios resulted in both physical and emotional harm to others. One infantry Marine, Artillery Art (CO-1), was 22 at the time of the incidents and described both an action and inaction that resulted in physical harm to other non-unit members (Commission-Physical and Omission-Physical) and emotional harm to himself and other members of his unit (Commission-Emotional and Omission Emotional):

I was stationed at a dangerous post where we received a lot of incoming fire, both from snipers and from enemy squads. On one occasion we were taking heavy fire from a group of Taliban in a building on the other side of a small ravine from my outpost. I was firing our .50 cal at them while trying to call in their location to our artillery unit. The first few artillery rounds came in and missed and I was trying to center their fire on the enemy’s location. As I was looking at the enemy’s location through my scope, I noticed two young boys, not older than 10 years old, run into the building. Minutes later the next round of artillery came in and completely destroyed the building. I didn’t tell anyone what I saw, but I could tell from the look on other’s faces that they had seen what I saw. That image still haunts me.

Another infantry Service Member, Radio Ralph (CO-2), was 21 at the time of the incidents. This Veteran described a series of events where his actions in one scenario resulted in
emotional harm (Commission-Emotional) which led to a subsequent inaction that resulted in physical harm to other unit members (Omission-Physical):

*I was in a convoy and we hit an IED. I got on all of the radios and tried to call in our location for help. The sergeant in charge told pointed at me and told me to shut up. Later, we found out the no one was hurt and the sergeant mocked me in front of the rest of the unit and I believe they felt they couldn’t trust me to stay cool if we got into a fight. I felt betrayed and couldn’t look my leaders in the face after that. About a week later, we were in a similar situation and my convoy was attacked. I did my best to fire back and assist my gunner in picking out the enemy. But I didn’t call in for help. Later I found out that we had lost a few in the truck behind us.*

The third example comes from, No shoot Ned (CO-3), who was 19 years old at the time. In this scenario, the participant describes a Commission-Physical action that involved non-Service Members and an Omission-Physical inaction that involved both non-Service Members and other Service Members.

*I was in an engagement where small arms fire was exchanged with the Taliban. I was returning fire and noticed three or four young men in civilian clothing hop into the back of a truck. I thought they were trying to get out of the area so I made a split second decision not to fire at them. A few minutes later, I noticed that that another one of our units was receiving incoming fire from another location. When I glanced over, I noticed that it was the guys who hopped into the truck who were firing at them. My unit was too busy engaging others for me to do anything to help. The other unit took heavy casualties.*

Interestingly, the accounts of events involving both acts of commission and omission reflected the same themes that were found in events only involving an act of commission or an act of
omission. Specifically, details that were specific to Commission-Physical actions (e.g., firing at enemy combatants) involved non-Service Members. Details specific to Commission-Emotional (e.g., berating fellow Service Members) and Omission-Physical (e.g., not reporting problematic behaviors of fellow Service Members) (in)actions referred more-specifically to fellow Service Members. Acts of omission that resulted in both physical and emotional harm (e.g., not shooting at unknown individuals and not preventing an artillery strike on an enemy outpost) involved both non-Service Members and Service Members alike.

**Meanings and Interpretations**

**Regret**

When asked about their interpretation(s) at the time of the event or events, each participant offered additional insight about why they chose the event (or events) they described. Though, the interviewer did not ask participants to address their regret directly at this time, each participant discussed how their regret shaped the significance of the event they chose to describe. For example, Sergeant Sam (CE-1) who reported berating and scolding his subordinates noted:

*By demeaning those who I was supposed to care for, I think I did more damage to my ability to lead this group of people than any other thing I could have done. This behavior was completely out of character, and, of all of my experiences during any of my deployments, it is the one thing that I did I wish I could do over.*

Indeed, each participant echoed Sergeant Sam noting that, if given the chance, they would have changed all or part of the scenarios they described.

Participants’ depictions of regret varied based on the type of (in)action they reported. Yet again, participants who reported a Commission-Physical action were unique. Without any prompting from the interviewer, participants described either regretting: (a) their
conduct/behavior (i.e., the action itself); (b) the result of their action; or (c) both their action and the result of their action. As an illustration, Sean the Sniper (CP-3), who described killing enemy combatants who were constructing an IED and then firing at two teenagers explained that, though he did not regret the outcome, he did regret some of his actions:

‘I feel, very much, that is was a successful mission. There is a sense of pride that we put that [the mission] together. We gathered intelligence, we were patient, and it played out how we were expecting it; roughly how we called it. But, there is sorta that voice, if I rehash it. There’s a voice in my head that says maybe we shouldn’t of engaged the kids again when they were in the grove [hiding]. Ummm, maybe we shouldn’t of tried to kill them all and just focused on the clearly adult males.

By contrast, Greg the Gunner (CP-1) who described firing on a civilian vehicle that continuously moved dangerously close to his convoy depicted feeling no regret for his actions but regret for the outcome:

I saw similar situations happen too many times and it ended without somebody pulling the trigger and the front Humvee being struck with a VBIED and losing guys. Again a lot happened and I pulled the trigger a lot before that and a lot after that. But for some reason that one sticks out I think it’s because it was the only time that a civilian died. I wish that hadn’t happened.

The third participant who described a Commission-Physical incident, Charlie at Checkpoint (CP-2), whose unit fired on an approaching vehicle (and later discovered that the car was transporting civilian doctors) reported:

I know that the situation was dangerous but I do believe that we responded a bit quickly and used too much force. It was shitty that we killed some innocent civilians, especially
doctors just trying to help people. That was the one and only incident over there where I regret harming somebody.

Whereas the other two depictions of Commission-Physical actions reported regretting only their action or only the outcome of their action, this participant reports feeling regret for both their Commission-Physical action and the result of their action.

Participants reporting other types of (in)actions, did not make any distinction between regretting their inaction(s) and regretting the outcome. Henry who didn’t Help (OE-1) who reported not helping a fellow Service Member who was struggling with an alcohol addiction noted:

_He was eventually caught drinking on the job and they sent him home early from our deployment. He was a good person and even a better Airman. Now others will never have the opportunity to work with him or learn from him the way I did._

Similarly, Blake at the Blast site (OPE-1) who reported being unable to save civilian family members who were the victims of an explosion noted:

_I keep thinking about the little boy who died. He was the same age as my boy and he never had the chance to grow up like my boy._

Thus, rather than distinguishing between regretting one’s actions or regretting the outcome of one’s actions, participants who reported non-Commission-Physical (in)actions expressed regret due to lost opportunities associated with their (in)actions.

Interestingly, participants who reported more than one type of (in)action shared themes of regret with both Commission-Physical actions and non-Commission-Physical (in)actions. Scott the (anti) Scavenger (CPE-1) noted:
I know we did the right thing by firing at them. We did what we were supposed to. It sucks that people had to die. But it was the look on my medic’s face that I couldn’t get over. He’s trying to do his job and I’m yelling at him. I dropped the ball and he came away thinking that he had failed those people. He never went on another mission with us and we lost a good one.

Similarly, Artillery Art (CO-1) reported:

I did what I had to do. I don’t feel bad about firing at the people who were shooting at us. I feel bad because I could’ve stopped those mortars and a couple of boys died. I’ll never know for sure what the future would have looked like for them, but I think about it. I ask, “Was I the good guy or the bad guy here”? I still don’t know.

Thus, when describing their Commission-Physical actions (firing at non-Service Members) these participants report feeling regret for the outcome (but not their action). Yet when they describe other types of (in)actions, Scott the (anti) Scavenger and Artillery Art depict regret over lost opportunities.

Broke Rules of Right/Wrong and Appropriateness

The interviewer then asked Service Members to consider whether they perceived that their (in)action(s) broke their rules of right and wrong and whether they interpreted their (in)action as appropriate. Once again, Service Members who described a Commission-Physical action were unique in how they interpreted their (in)action(s). Specifically, participants depicting a Commission-Physical action adapted referenced the military’s Standard Operating Procedures (SOP) when explaining their perceptions of whether they broke their rules of right and wrong and the appropriateness of their action(s).
Within a military context, SOPs are manualized, written rules/regulations for performing a task and/or function. The function of SOPs, therefore, is to systematize nearly everything (from correct appearance/wearing of a military uniform to methods for conducting convoy operations) within the military profession. By familiarizing themselves with the SOPs, Service Members learn the military’s expectations for their conduct and behavior as well as a manualized outline for most (if not all) functions that are pertinent to their roles, responsibilities, and duties (Posen, 1986).

Among the military’s myriad SOPs, the rules of engagement (ROE) are among the most important for deployed Service Members. The ROE lay out the guidelines and instructions for using force against a source that is dangerous and/or threatening (e.g., an individual who is firing their weapon towards the Service Member’s location). Though Service Members will have various understandings and familiarity of the ROE (e.g., based on whether their job/duty makes it more likely that they will confront dangerous/threatening scenarios), most, if not all, deployed Service Members are familiar with two of the primary principles of the ROE: (1) the principle of discrimination; and (2) the principle of proportionality (Perry, 1995). Though each of these principles are multifaceted, the principle of discrimination essentially states that U.S. Service Members can only use force (deadly or otherwise) against a threatening target (e.g., can only fire their weapon at enemy combatants and not at civilians). The principle of proportionality, on the other hand, notes that Service Members can only use the force necessary to eliminate the threat (e.g., U.S. Forces cannot use an explosive device designed to destroy a large geographical area on one or two enemy combatants).

All participants reporting a Commission-Physical action referenced the ROE (and inferred both the principle of discrimination and the principle of proportionality) when
describing their perceptions of breaking their rules of right and wrong and the appropriateness of their action(s). Greg the Gunner (CP-1), who reported shooting the driver of a car because the car was dangerously close to his convoy noted:

*I’ve gone through the entire scenario again and again and I know I did the right thing.*

*Since there were so many civilians, I made sure that I didn’t use my .50 cal. I did feel like shit when I realized that the driver was a civilian.*

Greg’s expression that “There were too many civilians around so I didn’t use my .50 cal,” refers to the principle of proportionality while his remorse about the victim being a civilian is referencing the principle of discrimination. Similarly, Charlie at Checkpoint (CP-2), who reported shooting at an oncoming vehicle that was speeding towards his checkpoint noted:

*I do think that I did what I had to do. But we really used everything we had against that car. We could have done better to follow the rules. But, yeah, again, killing a bunch of doctors, that’s fucked up.*

Sean the Sniper (CP-3), the other Service Member who reported a Commission-Physical action where he shot to kill two teenagers after shooting and killing adults in a car who had activated a roadside improvised explosive device, noted:

*I made sure that the people I shot were trying to hurt us before I opened fire. But, shooting at unarmed kids? That keeps coming back to me.*

Thus, when discussing how ROE shaped their interpretations of the appropriateness of their action(s), all participants reporting a Commission-Physical action also depicted the complexities of following the ROE within the context of the conflicts in Iraq and Afghanistan. Both participants who reported shooting at an unknown civilian vehicle (Greg the Gunner and Charlie at Checkpoint) noted that uncertainty of the inhabitants or contents of vehicle (e.g., inability to
follow the rule of discrimination). When compared to other large-scale conflicts involving the U.S. Armed Forces (e.g., World War II, Korea, Vietnam), U.S. Service Members are often unable to distinguish civilians from armed fighters.

Participants describing a Commission-Physical action also stressed that their action(s) were influenced by the need to protect others. For example, Greg the Gunner (CP-1) stated:

*It was my job to make sure we all got to our destination alive. I did what I did and, whether it was right or wrong, we got where we need to go.*

Similarly, Charlie at Checkpoint (CP-2) noted:

*When the car was speeding towards us, I was thinking, “Someone’s going to get hurt, I gotta do something.”*

Interestingly, therefore, participants describing a Commission-Physical had a specific set of criteria (i.e. ROE and protecting others) that they referenced when determining whether the appropriateness of their action(s) and whether they broke their rules of right and wrong.

In contrast to interpretations associated with Commission-Physical actions, participants who reported other non-Commission-Physical types of (in)actions perceived that their (in)action(s) both inappropriate and broke their rules of right and wrong. Ben the Berater (CE-2) whose badgering contributed to a fellow Service Member’s desertion noted:

*I have no excuses. My parents raised me better than this. I hurt someone to the point that they felt like they would rather go AWOL (absent without leave) then be around me. The military does not take that shit lightly. The poor kid was threatened with a Court Martial and ended up getting kicked out all together. I told myself I was just having fun, but, man, I really let them down.*
Another example of interpreting the appropriateness of a non-Commission-Physical (in)action and whether the (in)action broke one’s rules of right wrong came from Roberta who didn’t Report (OE-2) (who decided to not report sexually inappropriate comments from her NCO) noted:

*All of my training and everything inside me told me to report him. I just didn’t want to make things awkward. Now I have a hard time looking other female vets in the eye. I didn’t protect those who needed protecting.*

Thus, whereas participants associated the appropriateness of their Commission-Physical actions with protecting others, participants associated the inappropriateness of non-Commission-Physical (in)actions with failing to protect others.

Once again participants who reported multiple types of (in)actions reflected the themes from both the Commission-Physical participants as well as the participants who reported other types of (in)actions. Radio Ralph (CO-2) who called for help during an IED attack but, due to his leader’s rebuke, later did not call for help:

*I was really going through SOP in my mind through the entire first scenario. I was trying to take out the threat and call in for help. I was new, the guys around me were new and I was trying to help them while trying to stay calm and do my job. But, shit, that NCO made me feel like an asshole. The next attack came and I didn’t do my job. Others got hurt because of my damn pride.*

When referring to his Commission-Physical action, the Service Member refers to ROE and protecting others. Yet, when referring to another event, he explains that his non-Commission-Physical inaction was inappropriate because he failed to protect others.
Mixing Methods (additional exploration of quantitative data)

When describing their interpretations, participants revealed other considerations that further complicated their perceptions of the appropriateness of their (in)actions and whether they perceived that they broke their rules of right/wrong. For example, participants noted the stark difference between the military’s rules of right and wrong and the rules they grew up with (and the rules of the communities they returned home to). As an illustration, Sean the Sniper (CP-3) noted:

*Which rules are we talking about? I followed what I believed the rules were given my mission. But, yeah, there’s that voice in your head that says, ‘No, you don’t kill people’, ‘No, you don’t pull the trigger.’ So this whole question of rules. Which rules?*

Other participants noted that the extreme difference between the contextual rules that they followed during a deployment and the civilian rules they returned to shaped their judgements of what they could and could not share with others. Greg the Gunner (CP-1) noted:

*Hell no I didn’t break the rules. I did what I had to do. But...wow...I sure as fuck can’t tell people around here about this thing. They would look at me and ask, ‘How in the hell can you shoot someone you don’t know? You didn’t know they were trying to hurt you.’ So yeah, I guess when you say “rules”, it gets real tricky real fast. When I put on my civilian cap I would have to say that I broke my rules and what I did was unacceptable. But then I remember what it was like over there. It’s impossible to explain to someone who hasn’t been there.*

Similar to Greg the Gunner, a majority of participants noted that they feel conflicted when they consider the values they grew up with to judge the appropriateness of their (in)action(s) and whether they broke their rules of right/wrong.
Another complication expressed by interview participants was the contradiction between what they considered “appropriate” and what they considered “right or wrong”. For example, Connor the Convoy Commander (OP-1), reported that the attack on his convoy was due to a lack of planning/information-gathering. He remarked:

*I guess I haven’t considered this in terms of whether it was “appropriate”. You asked if I broke my rules and I did, I really broke all of the rules. I would say it doesn’t matter if everything was appropriate but I think that’s wrong. I guess the two are connected. I broke the rules, but appropriate is harder. I delegated some tasks. As the person in charge, I should be able to delegate. I can’t do everything. So, that was appropriate. But, I should have also double and triple checked everything, that was inappropriate. I keep going back and forth on this. And I guess, now that I think about it, it’s harder to say whether I broke my rules. I broke some rules, but I guess I didn’t break others.*

Here, the participant acknowledges that, although their interpretations of appropriateness and breaking their own rules of right/wrong are inter-related, these interpretations are particularly difficult. Indeed, Connor’s reflection signifies that the complexity of some wartime events may not allow for a clear or distinct (e.g., yes or no; right or wrong; appropriate or inappropriate) interpretation.

Acknowledging the complicated association between participants’ perceptions of breaking their rules of right/wrong and their interpretations of appropriateness, we decided to return to the quantitative data to explore these interpretations in more depth. Specifically, we considered the possibility that Service Members interpretations of the appropriateness of their (in)action(s) might moderate the association between their perceptions of having broken their own rules of right/wrong and psychological problems. We conducted three hierarchical
regression analyses predicting PTSD, dysphoria, and alcohol/substance use entering predictors in the following order: (1) perception of breaking one’s own rules of right/wrong and appropriateness; and (2) perception of breaking one’s rules of right/wrong X appropriateness. Figure 3 presents the results of these analyses. The interaction term improved the prediction of PTSD ($\beta = .13, \Delta R^2 = .02, p < .001$) and dysphoria ($\beta = .10, \Delta R^2 = .01, p = .008$), and alcohol/substance use ($\beta = .09, \Delta R^2 = .01, p = .02$). Slope tests were used to reveal the nature of the interactions (Aiken & West, 1991). The perception that (in)actions broke one’s rules of right and wrong was significantly associated with higher levels of PTSD, dysphoria, and alcohol/substance among participants with high, moderate, and low levels of perceived appropriateness. Thus, among participants who reported that their (in)action was appropriate, those who also reported a greater perception that their (in)action(s) broke their rules of right/wrong report endorsed higher levels of psychological problems.

**Back to Meanings and Interpretations (return to qualitative data)**

*Altered Worldviews*

The final interpretation that Service Members described during the interview was the extent to which they believed that their (in)action(s) altered their worldviews (e.g., changed their conceptualizations of themselves, others, and or the world). Though all participants noted that their (in)action(s) prompted some change to their worldview, participants differed concerning which worldviews changed. Specifically, participants referred only to alterations to their conceptualizations of: (a) themselves; or (b) others/the world more generally. Interestingly, whereas participants reporting Commission-Physical actions described somewhat unique accounts when describing their interpretations of regret, appropriateness, and right/wrong, their descriptions of altered worldviews shared similar characteristics with participants reporting other
acts of commission. Similarly, the details of altered worldviews related by participants reporting an act of omission were shared by other participants who reported an act of omission.

All participants who reported any act of commission noted altered worldviews primarily associated with others/the world more generally. Greg the Gunner (CP-1) noted that his outlook on the world changed after he shot the civilian driver of a car:

After you’ve been in something like that, your outlook changes. I started to see that things don’t always go according to plan…shit happens. There’s no script. The world is a dangerous place, especially when you live in Iraq.

Similarly, Ben the Berater (CE-2) shared that he started to see others differently after a fellow Service Member disserted the military after his continuous berating:

I recognized that other people are kinda fragile. I was a kid when all this happened so I think this was the first time that I realized that people need support from others and not just bullshit. I thought I was being funny but it was obviously not funny. I didn’t realize that other people could just break over something as stupid as words.

Scott the (anti) Scavenger noted that after his unit shot and killed members of a family that were scavenging a supply outpost, his outlook on others and the world changed:

When I saw the parents wailing over their daughter’s body, I think that was the first time I recognized that families are the same everywhere. These people loved their daughter the same way that I love my daughter. Americans aren’t special or have some monopoly on what’s good or what’s important. We all love and we all feel anguish when something happens to people we love.

Thus, following an act of commission, participants reported changes to their understanding of the world (e.g., the world is not predictable), and other individuals (e.g., others are dangerous).
Whereas participants who reported acts of commission only described alterations to their conceptualizations of others and the world, participants who reported acts of omission only described alterations to their conceptualizations of themselves. Henry who didn’t Help (OE-1) reported that he started seeing himself differently when he did not help his supervisor who was suffering with an alcohol addiction:

*I was really shook by this. I started to question whether I was a good friend. Hell, I started to question whether I was a good person. Who just sits around and let’s their buddy slowly kill their career and their marriage? I really started to question whether I’d be a good leader and whether I deserved to wear the uniform.*

Mike the Medic who couldn’t help (OPE-2), the medic who was unable to get to the site of an explosion that killed a large number of both fellow Service Members and non-Service Members reported:

*I had an ability to put myself in the position to help and despite everything I tried, I failed. I feel like saving just one life would have been a badge of honor, a story that I would have been honored to share. I don’t get to say that. Instead, all I have are stories about being worthless and doing nothing.*

Following acts of omission, therefore, participants reported second-guessing valued aspects of their personality (e.g., Am I a good friend?). Moreover, the changes to participants’ characterizations of themselves led to doubts and questions about their identities as a Service Member more generally (e.g., Am I a good Service Member if I don’t help others?).

Once again, participants who reported both acts of commission and omission reflected themes from participants who reported only commission and from participants who reported only omission. Artillery Art (CO-1) noted that after the event where his actions and inactions resulted
in the death of two young boys, resulted in detrimental changes to his understanding of himself and the world:

Once you see the bodies of a couple of kids, it sticks with you, it leaves imprints. I started questioning mankind’s role in the world. I thought, “man the world is just broken and we keep breaking it.” I was really angry at myself. I told myself that if I couldn’t help a couple of helpless kids then what good was I.

Radio Ralph (CO-2) noted that after his superior rebuked him in front of others for over-reacting (which led to him subsequently not calling for backup during a later ambush):

I started hating everyone in authority. I couldn’t stand for others to tell me what to do. And then I didn’t do something that I should have done. I then I started wondering if I was any good or if maybe that Sergeant Major was right about me. Was I made of the right stuff to be Soldier?

In both narratives, participants’ acts of commission corresponded with changes to their conceptualization of others/the world (e.g., questioning mankind’s “goodness”; hating others in authority), while their acts of omission corresponded with changes to their conceptualizations of themselves (e.g., Am I a good person? Am I worthy to be in the military?).

**Changes to Interpretations and Current “Impact” of (In)actions**

Throughout the interview, participants were asked to consider if their interpretations had changed. Before moving to the next category of interpretations (e.g., perceptions that the participant broke their own rules of right/wrong, interpretations of the appropriateness of their (in)action, alterations to participants’ worldviews) the interviewer asked participants to reflect whether their interpretation had changed since the event, and if so, how it had changed. The interviewer also asked if there was a specific reason or catalyst for changes to participants’
interpretations (e.g., being promoted to a leadership position). Outside of the association between returning home and the (sometimes stark) recognition of different norms/rules (e.g., differences between the norms/rules of a warzone and the civilian world), participants mentioned no particular events that corresponded with changes to their interpretations.

Interestingly, all participants reported that their interpretations of appropriateness and their perceptions of breaking their rules of right/wrong did not change. Charlie at Checkpoint (CP-2) noted:

_"I still think we really went all out on that car. I guess that’s one of the reasons that it was the first event that came to mind. But sitting here, I can still feel the fear and the dread for my guys that I felt when that car started speeding up. If I had it to do over, I still would have had to attack, although I would hope that I wouldn’t open up on them the way we did."_

Though participants who reported a Commission-Physical action maintained the same orientation towards the ROE when considering their perspective of whether they broke their rules of right and wrong, they also continued to base their interpretations of the appropriateness of their action(s) on the conviction that they were protecting others.

Participants who reported non-Commission-Physical actions referred to their belief that they had failed to protect when explaining why their interpretations had not changed. For example, Roberta who didn’t Report (OE-2) noted:

_"I still can’t justify that I didn’t report that ass hole. And I still can’t get over that others might have suffered because I didn’t do what I know I should have done. So, yeah, I still think about it, and, yeah, I still think I fucked up."_
Thus, when determining whether their (in)action broke their own rules of right/wrong and whether their (in)action was appropriate, Service Members appear to use the same justifications and methods (e.g., whether they followed the ROE, whether they were protecting others) at the time of the event as they do years later.

By contrast, participants did report that changes to worldview continued to change over time. However, the degree of change to worldviews varied by participant. Greg the Gunner (CP-1) who noted viewing the world as unpredictable (e.g., “There’s no script”) and that his understanding of the world had changed since shooting a civilian driver remarked:

*Ya know, I don’t think much has changed. I still walk out the door and think, “Okay world, what kind of fucked up shit do you have planned for me today?” I look at others just going on with their day, assuming that everything will go exactly the way they’ve planned and I’m thinking, “If you only knew.”*

Similarly, Sergeant Sam (CE-1) noted:

*I think that really did me in. I never really sought for opportunities to get promoted after that. I did my job, but I’m not sure I was great at it. I wanted nothing to do with supervising others. I still question my abilities at nearly everything. I had spent so much time getting to a place where I was responsible for others and then I hated the people under my care. It feels like I’ve doubted everything I’ve done since then.*

In these cases, negative alterations to participants’ worldviews (e.g., the world is not safe, I’m not a good person) appear to persist. Moreover, Service Members sometimes reported that negative changes to their worldviews deepened or became worse.
Other participants reported that changes to their worldviews had expanded over time. For example, Roberta who didn’t Report (OE-2) noted that she has recognized that multiple factors were involved in her decision to not report her superior:

*This event comes to mind quite a bit. But, I’ve had to look at it from different angles.*

*Could I have done more? Yes. But, was the situation fucked up? Hell yes. Was the environment terrible? Yeah, we were at war. Can I be responsible for everything bad that happens? Nope. Could I have made things worse by reporting him? I hate to admit it, but yes. The military is awful when it comes to sexual shit.*

Participant Sean the Sniper (CP-3) noted that he has also considered the scenario from multiple perspectives:

*Yeah, I know I could have probably done better. I guess I’ve changed in that I’ve considered things from the eyes of those boys. They probably didn’t have much of a choice about whether they were involved in all of that shit. So, I’ve started to look at things a bit more from 30,000 feet. The world can be fucked and I don’t feel only pride or only shit for stuff I did over there. Welcome to life I guess.*

Accounts from these participants suggest that continued changes to Service Members worldviews can allow for a larger/wider perspective that moves from only considering changes to conceptualizations of oneself or others/the world to a consideration of changes to both oneself and others/the world.

**Current considerations of (in)actions**

The final question of the interview asked participants to summarize their current understandings and emotions concerning their (in)action(s). All participants noted that they had chosen the (in)action(s) they shared because they continued to experience some regret connected
to the (in)action. Participants noted important differences, however, in how they currently experienced their regret. Specifically, Service Members depicted two “types” of current regret: (1) “simple” regret or currently experiencing primarily unpleasant emotions when considering the event as well as a belief that their (in)action(s) exemplify primary/key information about their identity; or (2) “complex” regret or currently experiencing both unpleasant and pleasant emotions when considering the event and a recognition that the event was one among many events that had contributed to their identity.

An example of “simple” regret was expressed by Mike the Medic who couldn’t help (OPE-2), explained:

*I think about this event at least once every day. I get angry and then I start to tear-up. I think that others would tell me I’m a failure if I were to share this story. Hell, I tell myself that I’m a failure. I think that if I could have saved a few people and really contributed to the effort, I’d have that to look back on. Instead, I don’t have anything to be proud about, then or now.*

Here, the Service Member notes that memories of the event only elicit unpleasant emotions (e.g., anger, sadness). Moreover, this event appears to critically influence the Service Member’s analysis of their entire deployment experience while continuing to impact (negatively) the Service Members’ interpretations of their identity (e.g., this event proves that I’m no good).

An example of “complex” regret came from No shoot Ned (CO-3) who expressed regret over his failure to attack individuals climbing into a truck during a skirmish (he later saw these individuals firing at his fellow Service Members in a nearby unit):

*Oh man, I still think about it and it really gets my heart pumping. Sometimes I don’t even know that I’m thinking about it until I notice that my jaw is clinching. But I do recognize*
that those guys didn’t want to be there anymore than I did. It’s likely that they didn’t have a choice about whether they’d fight or not. I feel bad for them, they were probably scared shitless. War’s a complicated piece of shit. If I could go back, I would shoot them. But there’s a huge part of me that’s actually glad that I didn’t shoot them. I’ll never know everything there is to know and so I go about the rest of my day.

Though the Service Member acknowledges unpleasant emotions (e.g., anger) he also acknowledges feeling sympathy and even relief (e.g., both non-pleasant and pleasant emotions). Furthermore, he concedes that he has multiple, even contradictory, understandings and desires concerning his (in)actions. Yet, rather than settling on one explanation or analysis of this event, he expresses an allowance for multiple insights, each offering a potential “piece” to his overall conceptualization of the event (also allowing for the possibility or probability that he’ll never have all of the pieces).

“Trajectories” of change

In an attempt to conceptualize the rich mass of information from Study 2, we created time-ordered matrices of changes to Service Members’ interpretations (for an example, see Figure 3). The matrices followed the flow of the interview, starting with participants’ interpretation of regret (also noting whether they regretted their (in)action and/or the result of their (in)action) and then noted participants’ perceptions of breaking their rules of right/wrong, interpretations of appropriateness (including whether they mentioned if they were protecting others), and their altered worldviews. The right half of each matrix listed participants’ descriptions of changes to their interpretations (including whether they described currently experiencing complex or simple regret).
The time-line of changes to participants’ interpretations revealed interesting trends. Firstly, changes to participants interpretations did not appear to differ based on the type of (in)action they reported. Further, current regret (whether complex or simple) appeared to only be associated with altered worldviews. Whereas initial interpretations of breaking one’s rules of right/wrong and appropriateness did not change over time, only participants who noted that alterations to their worldview expanded (e.g., reported that they began to consider changes to their conceptualizations of themselves and others and the world) described complex regret.
CHAPTER 4: DISCUSSION

(In)actions

We found that both acts of commission and omission are fairly common. Using a clear and strict definition of (in)actions, we found that roughly half of our questionnaire sample reported at least one type of (in)action that resulted in substantial (e.g., a lot) and lasting harm to others. Both acts of commission and omission also share some rather important consequences. Service Members’ descriptions of their (in)actions during interviews confirmed that both actions and inactions could result in serious outcomes (e.g., death, life-threatening injuries) to others. It is undoubtedly the case that the proportion of Service Members who report an (in)action will be influenced by the criteria used to define (in)action. Thus, future research is needed to determine the prevalence of (in)action when it is defined less and more strictly.

One of the most noteworthy findings from our investigation concerns the distinct characteristics of Commission-Physical actions. Results from questionnaires and interviews suggest that Commission-Physical actions are most likely to occur in the context of a combat/operational incident. Commission-Physical actions tended to occur when Service Members were doing their job or duty, protecting others, and contributing to the successful outcome of their unit’s mission (e.g., Greg the Gunner provided security for a convoy and used his weapon to ensure that everyone arrived at their destination safely). Commission-Physical actions were also the only type of (in)action to solely describe substantial harm done to non-Service Members (e.g., all narratives of Commission-Physical actions described harm to civilians or enemy combatants).

Commission-Emotional actions and Omission-Emotion inactions shared very similar associations with psychological problems (e.g., they exhibited almost identical zero-order and
partial correlations with PTSD, dysphoria, and alcohol/substance use). Correspondingly, interview participants who described (in)actions that resulted in emotional harm to others (e.g., Commission-Emotional, Omission-Emotional) only described harm to fellow Service Members. When compared to other types of (in)actions, participants who reported a Commission-Emotional or Omission-Emotional (in)actions were less likely to report that their (in)action occurred during combat. Relatedly, although a majority of questionnaire participants who reported a Commission-Emotional or Omission-Emotional (in)action also endorsed that they were doing their job or duty, interview participants clarified that, though they were doing their job, they believed that they had failed in their responsibilities to others. For example, Henry who didn’t Help noted that, though he continued to do his job and show up to work every day, he did not help his supervisor even though he believed it was his responsibility to do so.

Of the four types of (in)actions, Omission-Physical inactions were most strongly associated with psychological problems. Only Omission-Physical inactions continued to predict all three psychological problems (PTSD, dysphoria, and alcohol/substance use) when age, gender, number of deployments, and combat/post combat experience were taken into account. Moreover, among questionnaire participants who reported Omission-Physical inactions, the majority reported that their inaction occurred during a combat incident and that they were doing their job or duty. Similar to participants reporting Commission-Emotional or Omission-Emotional (in)actions, however, interview participants who reported an Omission-Physical inaction clarified that, though they were doing their job in some ways, their inaction was a failure of their duty and responsibilities in other ways. Also similar to (in)actions resulting in emotional harm to others, interview participants who described Omission-Physical inactions only depicted the impact of their inactions to fellow Service Members. For example, Conner the Convoy
Commander reported that, while their inactions occurred while they were in the process of doing their job (i.e., commanding a convoy), their inactions reflected an inability to do fulfill other facets of their responsibility towards others (in both cases their inactions resulted in substantial harm to fellow Service Members).

This study replicated the findings of the study by Williams and Berenbaum (in review) suggesting that both acts of commission and omission are important. For example, when compared to acts of commission, only acts of omission continued to predict all three psychological problems (PTSD, dysphoria, alcohol/substance use) when taking into account age, gender, number of deployments and combat/post combat experiences. These results further support prior research that has recommended that that assessments measuring moral injury would benefit from distinguishing between different kinds of experience (e.g., commission and omission) and the multiple interpretations that may contribute to Service Members judgments of regret (e.g., Frankfurt and Frazier, 2016).

We considered an act of omission to occur when an individual failed to act to prevent harm to others when they believed they should have done so. Thus, acts of omission, as we defined them, are a subset of other phenomena described in the literature, such as “witnessing violence” and “moral injury by others.” For example, Service members may witness some violent acts that they judged as appropriate or reasonable (e.g. witnessing a fellow unit member harm an enemy combatant to protect other members of his/her unit, which would be an example of “witnessing violence” but not an act of omission), and other witnessed acts may be interpreted as morally unjustified though the Service Member does not have the ability or opportunity to prevent harm to others (e.g., witnessing a superior officer harm an unarmed civilian, which we would consider “moral injury by others” but not an act of omission). It will be important for
future research to separately examine the associations between psychological problems and each of these different types of witnessed acts. Although we expect all forms of witnessed acts to be associated with psychological problems, we hypothesize that psychological problems will be most strongly associated with acts of omission (as we define them), next most strongly associated with “moral injury by others” (when the person did not believe they could have prevented the other person’s action), and least strongly associated with “witnessing violence” (when the violence is considered reasonable).

Regret and Interpretations

Another important finding from our investigation concerns regret more generally. For example, our investigation revealed that Service Members interpret regret differently depending on the type of (in)action they reported. Given the strong association between Omission-Physical inactions and psychological problems, it is not surprising that participants who reported an Omission-Physical inaction also reported the highest levels of regret. Correspondingly, just as Commission-Emotional actions and Omission-Emotional inactions shared similar associations with psychological problems, they also shared similar levels of regret. Our interviews revealed why these three types of (in)action were similar -- participants referred to fellow Service Members when discussing the harm to others associated with these three types of (in)action, but not when discussing Commission-Physical actions. Thus, in addition to exploring actions and/or inactions that result in physical and/or emotional harm to others, future research should also explore whether regret differs based the nature of the relationship with the harmed individual (e.g., the harmed individual was my supervisor, the harmed individual was my subordinate).

Commission-Physical actions were associated with less regret than were the other types of (in)action. Yet, unlike the other types of (in)actions, the degree of regret seemed much more
relevant for Commission-Physical actions. Whereas the association between non regretted Commission-Physical actions and psychological problems was the weakest of any type of (in)action, regretted Commission-Physical actions had much stronger (and in one case the strongest) association with psychological problems.

Interview participants clarified that the criteria that Service Members use to determine regret associated with Commission-Physical actions is different from the criteria that Service Members use to determine regret associated with than other types of (in)actions. For example, only participants who described Commission-Physical actions specified regretting their actions specifically (e.g., regretting shooting at young men) or regretting the outcome of their action specifically (e.g., regretting killing a civilian). In contrast, for other types of (in)actions, participants did not clearly distinguish between regretting actions as opposed to outcomes. Service Members who described a Commission-Physical action were also the only participants who referred to the military’s rules of engagement (ROE) when explaining their perceptions of breaking their rules of right/wrong and their interpretations of the appropriateness of their actions. Researchers have suggested that a defining feature of regret is whether an (in)action follows social norms (Feldman & Albarracin, 2017). Since the ROE define acceptable and appropriate actions in a combat scenario, they offer a reference point for Service Members to determine if their Commission-Physical actions (of which all participants described a combat scenario) conformed to the contextual social norms. The capacity of the ROE to delineate whether an action was right and/or appropriate may, in part, explain the stark differences between Service Members’ regretted and non-regretted Commission-Physical actions.

We found that protecting others was important. Among participants who reported that they were protecting others, Service Members who reported greater appropriateness of their
(in)action tended to report lower levels of PTSD and dysphoria. In contrast, among participants who did not report protecting others, there was no association between reported appropriateness and PTSD and dysphoria. Among interview participants, we also found that those participants who described non-Commission-Physical (in)actions commonly stated that they viewed their (in)action(s) as a failure in their responsibilities to protect others.

We also found that altered worldviews was the only interpretation variable that predicted elevated levels of all three psychological problems independently of the other interpretation variables (perceiving that one’s (in)action broke one’s rules of right/wrong and perceived appropriateness) when age, gender, number of deployments and combat/post combat experiences were considered. When other factors were accounted for, altered worldviews also predicted psychological problems better than did guilt and shame. Interview participants’ portrayal of changes to their worldviews revealed that the specific changes to Service Members’ worldviews depended on the type of (in)action they endorsed. Specifically, acts of commission tended to be associated with changes in conceptualizations of others, whereas acts of omission tended to be associated with changed conceptualizations of oneself. Though prior moral injury research has proposed that the experience of guilt and shame may be the fundamental pathological core of most combat-related PTSD cases (e.g., Wilson, Drozdek & Turkovic, 2006), our findings suggest that alterations to Service Members’ worldviews (associated with their wartime (in)actions) may be as important, if not more important, than guilt and shame in accounting for the psychological well-being of military personnel. Moreover, whereas previous research has found associations between alterations to trauma survivors’ foundational assumptions about the world (e.g., the world is safe and predictable) and psychological problems (Park, Mills, & Edmondson, 2014), these are the first findings to suggest that different events (e.g., ones’ actions or inactions) can
lead to distinct changes to one’s worldview (e.g., changes to one’s conceptualization of oneself vs changes to one’s conceptualization of others/the world). Future research is needed to determine whether alterations in views of one’s self are associated with different problems and/or difficulties than are alterations in views of others and the world.

**Implications**

We consider moral injury to be: (1) an (in)action that; (2) leads to one’s belief that they broke their own rules or right/wrong and/or changes to their understanding of themselves, others, and the world which; (3) corresponds with unpleasant emotions (e.g, guilt/shame, sadness) and; (4) results in psychological problems. Correspondingly, we consider moral injury to be a specific etiological pathway/mechanism to a variety of psychological problems including, but not limited to, PTSD and depression. Given the cross-sectional nature of our data, future research is needed to confirm the specific pathway(s) of our proposed model of moral injury. Future research is also necessary to consider alternative causal explanations. For example, it may be that the distress caused by wartime experiences leads one to exaggerate or color their interpretations of their (in)actions.

These findings also provide important information about the conceptualization of moral injury more generally. Previously, researchers have proposed a model of moral injury comprised of two factors, perceived transgressions and perceived betrayal by others (“I feel betrayed by others I once trusted”, Nash et al., 2014). Our interviews with Service Members revealed no descriptions or narratives depicting betrayal by others. Though betrayal by others is likely to contribute to psychological distress within the military population, we do not consider it to be a feature of moral injury. Rather, the perception of betraying others **was** a common theme that emerged from our interviews and **is** likely a central feature of moral injury. Thus, future research
and measures of moral injury will likely benefit from including Service Members’ perceptions of betraying others (particularly their fellow Service Members).

Moral injury also appears to be critically shaped by contextual factors that have largely been overlooked. We found that the type of MIEs explored by the majority of moral injury researchers to date (e.g., acts of commission resulting in physical harm to others) appear to often be interpreted differently by Service Members than other types of MIEs. Our interviews revealed that, whereas judgements of Commission-Physical actions are often determined by a rules-based approach (e.g., according to one’s adherence to the military’s code of ethics/ROE), acts of omission are more-often grounded in attachment (e.g., Service Members’ relationships with each other). Thus, whether Service Members perform a morally injurious action or an inaction appears to critically shape the psychological mechanisms that are associated with moral injury. Most importantly, perhaps, the myriad differences that we identified between Service Members’ response and interpretations to actions compared to inactions (revealed both by our questionnaire study as well as through interviews) suggest that there may not merely be one “type” or “form” of moral injury.

Despite the complexity and multifaceted nature of moral injury, we do not believe that it should be considered as a distinct disorder (e.g., one need not have either moral injury or depression). Rather, we consider our conceptualization of moral injury as offering a useful heuristic to explain potential obstacles to Service Members’ psychological well-being. Indeed, certain common psychological problems within the military community will likely benefit from a better conceptualization of moral injury. For example, a Service Member diagnosed with depression who is also experiencing moral injury may be experiencing significant distress and dysfunction due to changes to their worldviews (e.g., changed understanding of themselves) and
intense unpleasant emotions (e.g.) guilt/shame stemming from an event where they were responsible for the death of another person (e.g., see the narrative of Connor the Convoy Commander above). In this scenario, common intervention techniques for depression, such as challenging the logic of the Service Member’s thoughts (e.g., Beck, 2011), may not be effective.

The literature on traumatic grief may add further understanding to our conceptualization of moral injury. First, research on traumatic grief has found that individuals who experience a traumatic loss (e.g., sudden and/or violent death) have an additional risk factor for more severe psychological reactions to loss (e.g., comorbid complicated grief, PTSD and depression) when compared to individuals who experience a loss by non-traumatic means (Papa, Neria, & Litz, 2008). We propose that moral injury is a similar risk factor. Service Members who have experienced a traumatic event while also engaging in a morally injurious (in)action may be more likely to experience different (and perhaps more problematic) psychological sequelae when compared to Service Members who have not engaged in morally injurious (in)actions. Second, researchers have found that the loss of a close friend or family member predicts more difficulty than the loss of an acquaintance (Nolen-Hoeksema & Larson, 1999). Similarly, our interviews found that Service Members often expressed greater difficulty in interpreting and responding to (in)actions involving fellow Service Members than to (in)actions involving non-Service Members. Additional research is needed to explore whether Service Members’ closeness with others involved in morally injurious (in)actions predicts greater severity of psychological problems. Third, research has shown that survivors who suffer through a traumatic bereavement experience the additional burden of attempting to cope with the trauma and any resulting stress in addition to the death and the grieving process (Raphael and Martinek, 1997). Similarly, we argue that Service Members who have engaged in a morally injurious (in)action may have an
additional burden of attempting to make meaning of (in)actions that violate their sense of right and wrong and/or result in alterations to their understanding of themselves/others/the world while also attempting to cope in the aftermath of a traumatic event. Fourth, researchers have argued that the stress associated with a traumatic loss can interfere with the grieving process, leading to additional post-loss functional impairment (Stroebe, Schut, & Finkenauer, 2001). Likewise, Service Members’ attempts to understand and interpret morally injurious (in)actions may interfere with their attempt/ability to cope with the aftermath of a traumatic wartime event. Finally, traumatic grief research has warned against “overly pathologizing” the human response to loss (Neria & Litz, 2004). Though individuals who suffer a traumatic loss may be more likely to experience additional psychological difficulties, more often than not, an individual’s difficulties and emotions stemming from loss are necessary and healthy expressions of a healing process. Correspondingly, it is likely that the many of the emotions and difficulties associated with moral injury reflect a common/ordinary response to the complex nature of a wartime setting. Like traumatic grief, however, we hope that our conceptualization of moral injury will add additional understanding to distress and dysfunction experienced by some who have served in the Armed Forces.

Our results also offer valuable insight that may inform other interventions that are designed to address the psychological difficulties faced by many military Service Members. Interview participants’ descriptions of changes to their interpretations of their (in)actions over time may contribute to interventions that focus on changing Service Members’ beliefs and cognitions about wartime events (e.g., CPT, Resick, 2001). Whereas all of our interview participants reported no changes to their belief/interpretations of breaking their rules of right/wrong and appropriateness, some participants noted important changes to their altered
worldviews. Moreover, only participants who expressed continued changes to their worldviews (e.g., over time started to consider changes to both their conceptualizations of themselves and others/the world) described complex regret. Prior research has found that contextualization (e.g., to consider an event or situation with its larger multilayered setting) and positive affect (the two characteristics of complex regret) are both key contributors to psychological well-being and resilience (e.g., Ong et al, 2006). Since altered worldviews are also closely associated with a loss of meaning (Park, 2010), meaning-making endeavors will also likely be valuable components within the intervention process. Thus, when exploring altered worldviews with Service Members, treatments based on post-traumatic growth may have great potential for exploring and addressing the meanings and interpretations associated with regretted (in)actions given their focus on expanding one’s perception of: (a) oneself; (b) others (via increasing capacity for interpersonal relationships); and (c) the world (via a more fluid philosophy of life) (Tedeschi & Calhoun, 2004).

The results from both the questionnaire and interview investigations may also shed light on the difficulties inherent in the reintegration process. Researchers have reported that the most difficult aspect of their adjustment after returning from a deployment is reconnecting with those they return to (Sayers, 2011). Relatedly, when asked whether they perceived that their (in)action broke their rules of right and wrong, our interviews revealed that some Service Members report difficulty with distinguishing between the rules of war and the rules they grew up with. Indeed, interview participants noted that the acceptability of their wartime actions differs drastically depending on whether they apply the rules of war or the rules of the civilian community they return to. Correspondingly, we found that an increase in questionnaire participants’ belief that they broke their own rules of right and wrong significantly increased all three psychological
problems among Service Members who also believed that their wartime (in)action was appropriate. Interview participants added that the (at times) stark contrast between the rules they followed while deployed and the rules they return home to have created obstacles in communication with the non-Military individuals they return home to (e.g., “I could never share my experiences with my friends and family”).

The process of connecting with others may be further complicated by altered worldviews. Indeed, another major finding of this study was changes to Service Members’ interpretations of their (in)actions. Specifically, Service Members may be challenged to translate their altered worldviews (e.g., the world is not safe/unpredictable) to those who have not shared their experience and whose views and understandings may not have changed. Judith Herman (1996) has noted that complex situations often confront the veterans with a “strange double bind,” where it seems to be both necessary to speak about what happened, and yet impossible to do so adequately. A veteran’s effort to associate with a community will often present its own challenges and obstacles. Thus, in addition to Service Members’ meaning making efforts, they must confront the huge gap that exists between the world of deployment, and the world around them, in which people seem to be doing everything possible to “move on.”

The results of this study must be interpreted in the context of its limitations. First, though the demographics (e.g., gender, race, branch of service, number of deployments) of the questionnaire sample was representative of the military overall, the relatively small number of participants from some demographics (e.g., females) did not allow us to explore certain questions (e.g., whether male or female Service Members are more likely to report one type of (in)action). Thus, future studies will probably need to be more selective (e.g., over sampling female Service Members) to explore (in)actions and meanings/interpretations among populations that are
underrepresented in the military. Second, though our interview sample provided a number of important insights, it was based on a small sample and cannot be generalized. As a result, it will be important to replicate our findings using a larger sample that is more representative of the military population. Third, the retrospective nature of this investigation may have resulted in recall bias. Although this may have inflated the strength of the associations among variables, it is worth noting that we found different patterns of results for different variables (e.g., omission vs. commission), suggesting that the results cannot be accounted for by a general tendency to view all things positively or negatively. Fourth, this study focused exclusively on OEF/OIF veterans. As a result, our results may not generalize to all veterans. Further, additional research is needed to focus on Service Members from other eras. Similarly, the relevance of moral injury to other populations (e.g., police) and specializations (e.g., criminal justice) merits additional investigation. Despite its limitations, we believe that this investigation adds to our understanding of the experience of Service Members. Despite its limitations, we believe that this investigation adds to our understanding of the diversity of Service Members’ wartime experiences and the complexity of the interpretations associated with their (in)actions.
### Table 1

*Means and standard deviations of regret scores and proportions of endorsed characteristics/outcomes for each category of (in)action*

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<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
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<td>1.3</td>
<td>3.7</td>
<td>1.2</td>
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<td>1.3</td>
<td>3.5</td>
<td>1.3</td>
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<td>83.8</td>
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<td>During Combat %</td>
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<td>64.1</td>
<td>79.8</td>
<td>66.7</td>
</tr>
<tr>
<td>Improved Success %</td>
<td>82.0</td>
<td>70.6</td>
<td>54.5</td>
<td>61.9</td>
</tr>
</tbody>
</table>

### Table 2

*Zero-order and partial correlation/Hierarchical regression analyses exploring associations between (in)actions and psychological problems*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Zero-order Correlation Regression</th>
<th>Partial Correlation Regression&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PTSD</td>
<td>Dysphoria</td>
</tr>
<tr>
<td>Commission</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>r</td>
<td>.24</td>
<td>.29</td>
</tr>
<tr>
<td>β</td>
<td>.10</td>
<td>.21</td>
</tr>
<tr>
<td>Emotional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>β</td>
<td>.14</td>
<td>.13</td>
</tr>
<tr>
<td>Omission</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>r</td>
<td>.32</td>
<td>.29</td>
</tr>
<tr>
<td>β</td>
<td>.23</td>
<td>.21</td>
</tr>
<tr>
<td>Emotional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>β</td>
<td>.13</td>
<td>.13</td>
</tr>
</tbody>
</table>

<sup>1</sup>Removing shared variance with Age, Gender, # of Deployments and Combat/post-Combat experience

<sup>2</sup>Step 1: Age, Gender, # of Deployments and Combat/post-Combat experience

Step 2: Commission-Physical, Commission-Emotional, Omission-Physical, Omission-Emotional

*p < .05  **p < .01  ***p < .001
Table 3
Summary of t tests comparing the means of psychological problems for regretted and not regretted (in)actions

<table>
<thead>
<tr>
<th>Variable</th>
<th>PTSD</th>
<th>Dysphoria</th>
<th>Alcohol/Substance use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>t</td>
</tr>
<tr>
<td>Commission</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Regret</td>
<td>4.58***</td>
<td>4.36***</td>
<td>1.25</td>
</tr>
<tr>
<td>Regret</td>
<td>53.2</td>
<td>18.0</td>
<td>26.5</td>
</tr>
<tr>
<td>Emotional</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Regret</td>
<td>1.25</td>
<td>2.14*</td>
<td>0.04</td>
</tr>
<tr>
<td>Regret</td>
<td>47.1</td>
<td>17.3</td>
<td>25.4</td>
</tr>
<tr>
<td>Omission</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td>0.18</td>
<td>0.80</td>
<td>1.01</td>
</tr>
<tr>
<td>No Regret</td>
<td>50.6</td>
<td>18.6</td>
<td>25.3</td>
</tr>
<tr>
<td>Regret</td>
<td>51.3</td>
<td>16.0</td>
<td>26.8</td>
</tr>
<tr>
<td>Emotional</td>
<td>0.79</td>
<td>1.31</td>
<td>0.85</td>
</tr>
<tr>
<td>No Regret</td>
<td>47.6</td>
<td>18.0</td>
<td>23.8</td>
</tr>
<tr>
<td>Regret</td>
<td>51.3</td>
<td>17.9</td>
<td>27.2</td>
</tr>
</tbody>
</table>

*p < .05 ***p < .001

Table 4
Descriptive statistics and t-tests comparing interpretations, guilt/shame, and psychological problems for participants who did (n = 256) and did not (n = 249) report an (in)action

<table>
<thead>
<tr>
<th>Variable</th>
<th>Range</th>
<th>No (In)action</th>
<th>(In)Action</th>
<th>t(503)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broke Rules</td>
<td>2.0 - 10.0</td>
<td>5.7</td>
<td>6.3</td>
<td>3.4**</td>
</tr>
<tr>
<td>Alt. Worldviews</td>
<td>6.0 - 30.0</td>
<td>14.4</td>
<td>18.0</td>
<td>7.9***</td>
</tr>
<tr>
<td>Appropriateness</td>
<td>2.0 - 10.0</td>
<td>7.0</td>
<td>7.4</td>
<td>2.1</td>
</tr>
<tr>
<td>Guilt/Shame</td>
<td>5.0 - 25.0</td>
<td>13.6</td>
<td>15.9</td>
<td>4.2</td>
</tr>
<tr>
<td>PTSD</td>
<td>19.0 - 95.0</td>
<td>33.0</td>
<td>45.3</td>
<td>18.1</td>
</tr>
<tr>
<td>Dysphoria</td>
<td>10.0 - 50.0</td>
<td>17.9</td>
<td>23.6</td>
<td>9.4</td>
</tr>
<tr>
<td>Alcohol/Sub Use</td>
<td>14.0 - 51.0</td>
<td>19.8</td>
<td>22.9</td>
<td>7.6</td>
</tr>
</tbody>
</table>

**p < .01 ***p < .001
Table 5
Zero-order and partial correlations/Hierarchical regression analyses exploring associations between the meanings/interpretations variables and psychological problems

<table>
<thead>
<tr>
<th>Variable</th>
<th>Zero-order Correlation Regression</th>
<th>Partial Correlation Regression&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PTSD Dys- Alcohol &amp; Sub Use</td>
<td>PTSD Dys- Alcohol &amp; Sub Use</td>
</tr>
<tr>
<td>Broke Rules</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( r )</td>
<td>.33*** .32*** .20***</td>
<td>.24*** .25*** .11*</td>
</tr>
<tr>
<td>( \beta )</td>
<td>.05 .06 .06</td>
<td>.00 .02 .01</td>
</tr>
<tr>
<td>Alt. Worldviews</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( r )</td>
<td>.60*** .53*** .27**</td>
<td>.47*** .41*** .14**</td>
</tr>
<tr>
<td>( \beta )</td>
<td>.53*** .44*** .19**</td>
<td>.38*** .34*** .11*</td>
</tr>
<tr>
<td>Appropriateness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( r )</td>
<td>.02 -.03 -.03</td>
<td>-.09 -.07 -.08</td>
</tr>
<tr>
<td>( \beta )</td>
<td>.08 .02 .01</td>
<td>-.02 -.04 -.06</td>
</tr>
<tr>
<td>Guilt/Shame</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( r )</td>
<td>.44*** .42*** .24***</td>
<td>.34*** .34*** .12**</td>
</tr>
<tr>
<td>( \beta )</td>
<td>.07 .09 .08</td>
<td>.05 .08 .06</td>
</tr>
</tbody>
</table>

<sup>1</sup>Removing shared variance with Age, Gender, # of Deployments and Combat/post-Combat experience

<sup>2</sup>Step 1: Age, Gender, # of Deployments and Combat/post Combat experience
Step 2: Broke Rules, Altered Worldviews, Guilt/Shame, Appropriateness

\( *p < .05 \quad **p < .01 \quad ***p < .001 \)
**FIGURES**

Figure 1

*Participant flowchart*

- 1316 Accessed Questionnaires
- 594 Completed Questionnaires
- 724 Stopped at Verification Questions
- 93 Answered Verification Q's Incorrectly
- 18 Answered Questionnaires Too Quickly
- 4 Used the Same Responses Throughout

- 479 Mturk Participants
- 26 Non-Mturk Participants

- 505 Participants
Figure 3-
Hypothetical Example of a Time-Ordered Matrix for Altered Worldviews

<table>
<thead>
<tr>
<th>Time</th>
<th>Interpretation</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>May, 2008</td>
<td>At Event</td>
<td>Since Event</td>
</tr>
<tr>
<td>November, 2017</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Type of (In)action:** Omission - Physical

**Regret**
Action – Yes
Outcome - Yes
Still Regret? Yes
Type of Regret: Complex

**Broke Rules**
Yes

**Appropriate**
No
Failed to protect others

**Failed to protect others**

**Altered Worldviews**
- Worldviews – self changed
- “Wasn’t sure what to believe”
- “Wasn’t sure if I was cut out to be in the military/a leader”
- “Continued to doubt my beliefs”;
- “Started to recognize that others were involved and that the situation was complicated” (Expanded Altered Worldviews)
- “Can’t share my experiences with others”
- “My worldview is still changed and I’ve realized that I can help others (which is why I’m in college).”
- “I still think I could have done better, but that’s life, I more than just that one thing.”
Figure 4
Slopes showing moderation of perceived appropriateness on association between breaking rules of right/wrong and PTSD (left); dysphoria (right); Alcohol/Substance Use (bottom)

\[ * p < .05 \quad *** p < .001 \]

Perceived Appropriateness
- High
- Moderate
- Low
REFERENCES


Herman, J. L. (2015). *Trauma and recovery: The aftermath of violence from domestic abuse to political terror.* New York: Basic Books.


