

The Threat of War and Psychological Distress among Civilians Working in Iraq and  
Afghanistan\*

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Throughout the last decade, the U.S. engaged in military conflicts as a part of the “Global War on Terror.” The two most prominent components of these efforts were Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF). OEF comprised military efforts in Afghanistan, while OIF involved military efforts in Iraq and surrounding areas. Commensurate with these engagements, researchers have examined how members of the military may be affected by involvement in OEF and OIF (e.g., Hoge et al. 2004; Maguen et al. 2010), and research suggests that deployment to combat zones can adversely affect the mental health of members of the military (Peterson et al. 2010; Wells et al. 2010). Surprisingly, though, research has not examined civilians who work with the military. This is surprising because the U.S. military directly employs nearly a quarter million civilians, and thousands of civilians are deployed every year to work with the military in combat zones (e.g., U. S. Department of the Army 2010). Civilians are so important to the U.S.’s military efforts that the Department of Defense now officially refers to civilians working for and with the military as “force multipliers” in formal recognition of their essential contributions in completing military missions around the globe (Department of Defense 2010; Quadrennial Defense Review 2012).

One may wonder if civilians are likely to be negatively affected by deployment to these war zones at all. After all, civilians do not directly engage in combat. Civilians deployed to war zones are still exposed to stressors, though, especially threats to their lives. For example, a civilian could be at danger from an improvised explosive device (IED) or ambush attack while traveling via ground transport outside of a secure military base. Even if civilians did not leave the military base in Iraq or Afghanistan, the base was still subject to rocket or mortar attacks. For civilians in Iraq and Afghanistan, it was not uncommon to hear a base siren indicating incoming hostile fire. The threat posed by such attacks was potent for civilian personnel because

the standing order upon the siren's signal was to collect personal protection gear (i.e., helmet, Kevlar plated vest) and head straight to a designated bunker until the all-clear signal. Even if they did not engage in combat, then, civilians deployed as a part of OEF and OIF faced a salient stressor in the form of potential threats to their lives.

Our research focuses on examining whether the experience of threat is associated with psychological distress in civilians in Iraq and Afghanistan. We do not only examine whether threat and distress are associated, though. We are also interested in examining *why* threat is associated with distress. This is important because sociologists who study mental health generally think of the relationship between stress and mental health as an indirect process (Pearlin and Bierman 2013). One way that stress exposure often indirectly influences distress is by depleting psycho-social resources that tend to bolster mental health (Pearlin and Bierman 2013). An important psycho-social resource that is often influenced by stress exposure is mastery, which is essentially the perception of control over one's own life (Avison and Cairney 2003; Pearlin and Pioli 2003). Reductions mastery can lead to distress because people will often become quite upset when they feel they cannot influence successes and what happens in their lives is purely random (Mirowsky and Ross 2003). If threat reduces people's sense of mastery, then, threat may indirectly lead to greater distress. We argue that threat is likely to diminish a sense of mastery. This is because a pervasive and consistent danger to one's life creates a sense that one is powerless to achieve a fundamental goal of living in a safe environment free from danger (Ross 2011). This sense of powerlessness is a direct constraint on an individual's perceived control over life. Threat could therefore indirectly cause distress by reducing a sense of mastery. When one variable connects an influence and an outcome, sociologists call this process "mediation" (Aneshensel 2013). In our research, then, we expect that mastery will

mediate the relationship between threat and psychological distress in civilians working for the military in Iraq and Afghanistan.

Sociologists who study the stress process also note that psycho-social resources can help people cope with stress exposure (Pearlin and Bierman 2013). Consequently, people who have a great deal of resources may not be as badly affected when exposed to stressors. A resource that can prevent the effects of a stressor on mental health is known as a “stress buffer” (Pearlin and Bierman 2013). Perceptions of control have been shown to buffer the effects of a wide number of stressors (Thoits 1995). Mastery buffers the effects of stressors because individuals with a strong sense of control are likely to see stressors as unusual and avoidable in the future, and also because individuals with a strong sense of mastery are more likely to engage in problem-focused coping (Ben-Zur 2002; Mirowsky and Ross 2003). Enhanced problem-focused coping may especially be important in war settings. A strong sense of control can strengthen hazard preparedness (Norris, Smith, and Kaniasty 1999), and such preparedness is likely to blunt the stress of threatening war conditions. This suggests that people may not experience as much distress from threat exposure when they have a strong sense of mastery. We therefore also expect that mastery will buffer the relationship between threat and psychological distress in civilians deployed to Iraq and Afghanistan.

It’s important to consider what we are suggesting in this paper: Threat will lead to distress by reducing mastery, but greater levels of mastery will buffer the effects of threat. In other words, we expect that threat will rob people of a psychological resource that would otherwise offset the effects of threat on mental health. Some sociologists refer to this process as “structural amplification” (Ross and Mirowsky 2006). It is called structural amplification because the stressor strengthens its own effects by taking away a buffering resource. In our

research, then, we do not only examine whether greater exposure to threat is associated with greater distress in civilians working with the military in Iraq and Afghanistan. We also examine whether a process of structural amplification involving mastery helps explain this association.

## **Methods**

### *Data*

Data for this study were obtained using a web-based survey administered to two logistics brigades deployed in Iraq and Afghanistan (Kelty and Bierman 2013). Respondents were invited to participate based on random selection through a computer program with a full list of all Federal civilians working with each brigade. Surveys were completed anonymously and data were encrypted for transmission via the internet. Participation was voluntary and each respondent was provided with an informed consent form and a debriefing form upon completion (or refusal) of the survey. Eighty-one percent (n=242) of the 300 Federal personnel working with the brigade in Iraq invited to participate responded to the survey. Of the 300 surveys administered to Federal civilians in Afghanistan, 205 (68%) were completed. Subsequent examination of responses showed that 43 of these respondents were contractors or did not indicate being regular civilian employees, and were subsequently dropped from the sample, leaving a sample size of 404. This may sound like a small sample when sociological studies often have sample sizes in the thousands, but command authorities estimated that between 900 and 1,050 civilians worked for each unit. Even using the highest estimate, then, this sample was almost 20 percent of the civilian component, indicating a substantial portion of potential respondents. Thus, although this sample is somewhat small by sociological standards, larger samples are more important for ensuring representativeness when there is a much larger

population encompassing greater diversity. Once we deleted responses due to missing data, we were left with an analytic sample size of 358. The patterns of missing responses suggested that missing data was completely random, which meant that dropping these respondents would not bias our analyses (Enders 2010).

### *Focal Measures*

*Psychological Distress.* Distress is often measured in research on mental health using measures of both “internalizing” and “externalizing. Symptoms of anxiety and depression can be considered indications of internalizing because they are inwardly focused, but emotions like anger are considered externalizing because they are outwardly focused (Lucas and Gohm 2003; Nolen-Hoeksema and Rusting 1999). Attention to both internalizing and externalizing outcomes provides a more comprehensive understanding of the effects of lived experiences (Aneshensel 2005). This is especially important for our research because mastery has been linked to not only depression and anxiety, but also anger (Avison and Cairney 2003; Mabry and Kiecolt 2005; Pudrovska et al. 2005). Because research suggests that mastery’s effects extend across mental outcomes, a full test of mastery’s mediating role should examine both externalizing and internalizing, and it is for these reasons that we examine both internalizing distress and anger in this study.

Our internalizing measure of distress was adapted from the K6, a commonly-used scale which has been shown to be a valid measure of “non-specific psychological distress” by measuring a core set of symptoms that are common to many psychological disorders (Drapeau et al. 2010; Kessler et al. 2002). Four indications of anxiety and depression were included: So sad nothing could cheer you up; nervous; hopeless; and restless or fidgety. Respondents indicated

the frequency they experienced each symptom in the previous 30 days on a scale of 1 (Never) to 5 (All the time). The mean of these items was used to indicate internalizing aspects of distress (Cronbach's  $\alpha=.75$ ). Anger was measured based on two symptoms with the same response format: Angry and irritable. This measure was adapted from a national probability survey of the United States, the MIDUS. The mean of these items was used as to indicate anger (Cronbach's  $\alpha=.82$ ).

*Mastery.* Mastery was measured using a set of four items adapted from Pearlin and Schooler's (1977) mastery scale. The four items are: I have little control over the things that happen to me; there is really no way I can solve some of the problems I have; I often feel helpless in dealing with problems of life; sometimes I feel that I am being pushed around in life. Responses were coded on a scale of 1 (Agree strongly) to 4 (Disagree strongly), with the mean of responses used to indicate mastery (Cronbach's  $\alpha=.77$ ).

*Threat.* A sense of threat to one's life was measured using the question, "In your current deployment, how often have you felt your life was threatened?" Responses were coded as: 1 (Never), 2 (Less than once a month), 3 (Once a month), 4 (A few times a month), 5 (Once a week), 6 (A few times a week or more). Social-psychological measures based on a single question often raise reliability and validity concerns, but previous research establishes that single-item measures of perceived threat are powerful predictors of psychological well-being (e.g., Gil and Caspi 2006; Holbrook et al. 2001). Additional military-specific research shows that single-item and multi-item measures of threat are similar predictors of psychological well-being (e.g., Mulligan et al. 2010; Renshaw 2011), further indicating little loss of reliability or validity through the use of a single-item measure.

## Control Measures

Our control measures focused on social statuses or job statuses that could influence both exposure to threat and either mastery or distress, thereby creating the possibility of a spurious relationship with threat. Education is controlled using a series of dichotomous variables in which high school diploma was compared to associate's degree, college degree, and more than a college degree. Marital status is controlled using a dichotomous variable in which 1=non-married. Gender is controlled using a dichotomous variable in which 1=woman. Because age contained a great deal of variability but few observations at specific ages, preliminary analyses showed that statistical models were more stable when age was coded as a series of dummy variables, in which a relatively low age for the sample (under 39) and a higher age (age 55 and over) was contrasted to a middle-age group (age 40-54). Unit location is also taken into account with a dichotomous variable in which 0=Afghanistan and 1=Iraq.

## Results

	Mean	SD
Internalizing Distress	1.504	0.538
Anger	1.844	0.825
Threat	2.706	1.760
Mastery	3.126	0.503
More than College Degree	0.138	0.345
Associate's Degree	0.315	0.465
College Degree	0.264	0.440
Non-Married	0.332	0.470
Women	0.193	0.395
Low Age	0.156	0.363
High Age	0.217	0.412
Stationed in Iraq	0.508	0.500

N=358.



### *Sample Characteristics and Prevalence of Threat*

Table 1 shows the mean and standard deviation for our study's measures. The mean for threat suggests that many respondents experienced threat. Additional analyses supported this interpretation, as almost two-thirds of the sample indicated experiencing some threat, with over a third indicating a few times a month or more. Threat was therefore a relatively common stressor experienced by even non-military personnel in Iraq and Afghanistan, but there was still a fairly noteworthy dispersion of frequency of threats. Furthermore, when we used the control variables to predict threat scores in ancillary analyses only two were significant: Women indicated lower levels of threat ( $b=-0.473$ ), as did those with greater than a college degree ( $b=-0.567$ ). Altogether, then, threat was a fairly common stressor experienced by the civilians in this study, and threat was also largely random with respect to multiple background social statuses and deployment location.

### *Mediation Analyses*

We use path analysis to examine whether mastery mediates the relationship between threat and psychological distress. A path analysis draws connections between different measures, thereby showing how they may be indirectly related. A path analysis is therefore useful for examining whether threat is indirectly related to psychological distress through mastery. Figure 2 shows the results of the path analysis. The figure indicates that threat is negatively related to mastery. In other words, when civilians reported more threat, they also tended to report less mastery. Additional analyses demonstrated that this is a fairly substantial association. Based on our model, we found that, on average, mastery was over half a standard

deviation lower at high levels of threat when compared to low levels of threat. When civilians experienced frequent threats, then, they tended to have much lower levels of mastery.

Even though our path analysis shows that threat is related to lower mastery, to support mediation we still need to show that individuals with less mastery have more distress. Figure 1 shows that mastery is associated with both measures of distress, but in a complex way. This is because Figure 2 shows that a *squared* term for mastery significantly predicts both measures of distress. The squared term is important because it indicates that the relationship between mastery and the two measures of distress is *non-linear*, meaning that mastery and distress are not related in a straight line.

To get an idea of the non-linear relationship between mastery and distress, look at Figure 2. This figure plots the predicted means for internalizing across levels of mastery. This figure shows a curved relationship between mastery and internalizing. Internalizing decreases as mastery increases, but internalizing doesn't decrease as much at higher levels of mastery. In fact, at the highest levels of mastery, distress actually increases slightly. What this figure shows is that the benefits of mastery for distress weaken as mastery increases. In additional analyses, we found that the relationship between mastery and anger has a similar nonlinear shape, except anger did not increase at high levels of mastery.

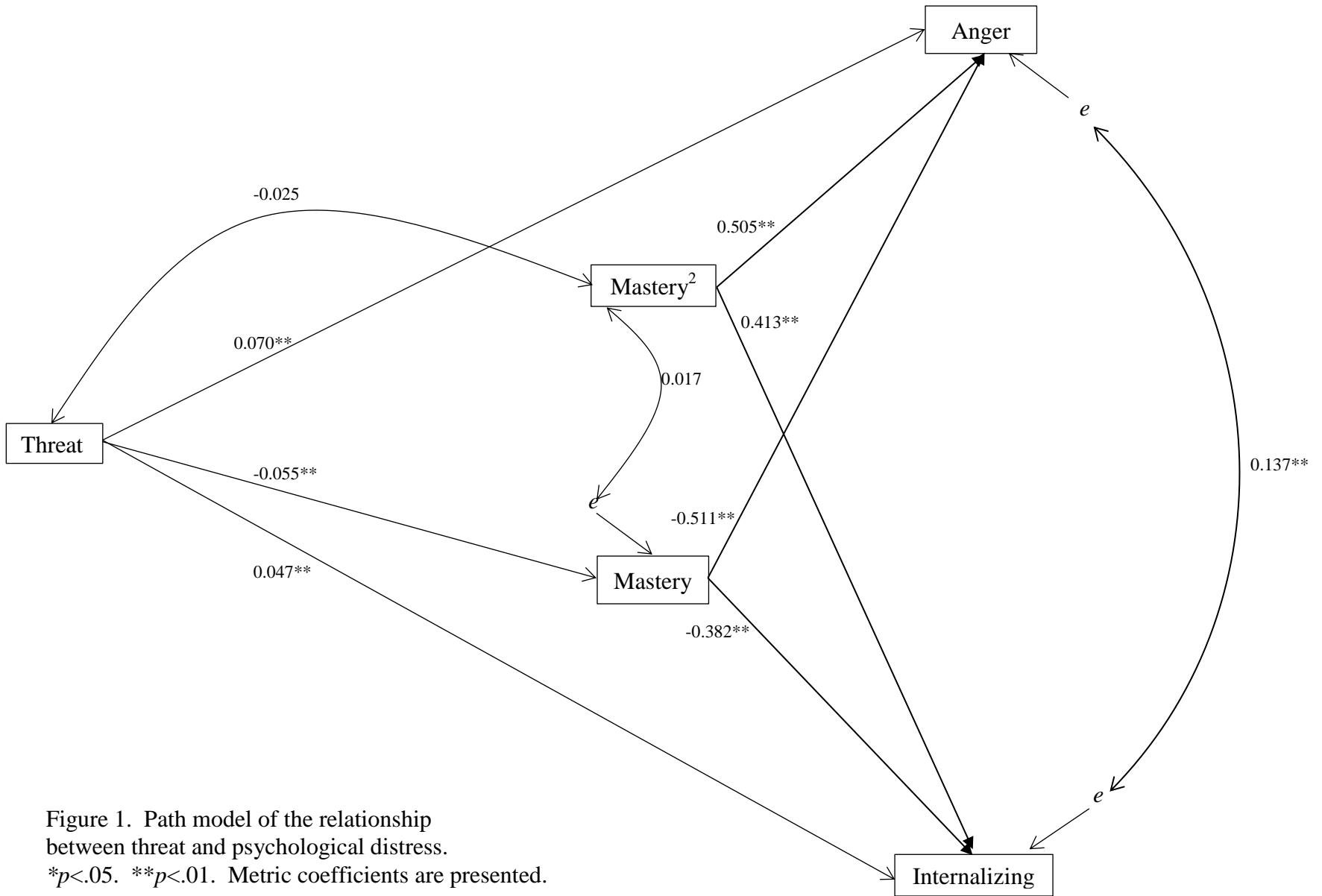
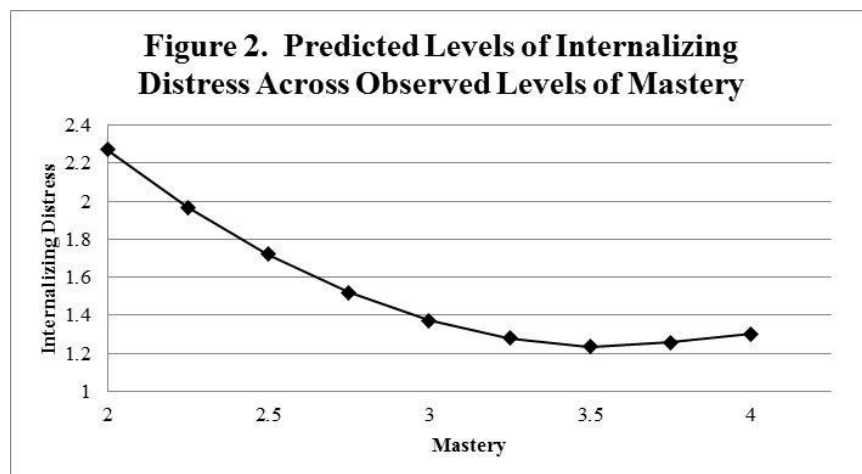


Figure 1. Path model of the relationship between threat and psychological distress.  
 \* $p < .05$ . \*\* $p < .01$ . Metric coefficients are presented.

These non-linear relationships likely occur because the military is a “total institution” that is by definition inflexible to individual demands (Caforio 2006; Lundquist 2004). Furthermore, the pervasive and encompassing nature of the total institution especially characterizes military operations in combat zones. The life-threatening context of the war zone permits the military institution to enact greater control over daily life of individuals living and working on the military installation than may occur when it is located in a non-hostile setting. Immersion within a total institution can result in a curved relationship between mastery and psychological distress because people with a great amount of mastery will tend to exert control over situations even when this is not possible or advisable (Wheaton 1985). The result is likely to be frustration and self-blame for failure to affect adverse circumstances that are beyond individual control (Kiecolt, Hughes, and Keith 2009; Wheaton 1985). In a total institution such as the military, there are likely to be a number of situations limiting self-determination, in turn creating multiple opportunities for frustration and distress when high-mastery individuals try to wield control. These control-limiting situations will therefore offset the salutary effects of a high level of perceived control, serving to weaken the benefits of high levels of mastery for distress (Kiecolt et al. 2009; Mirowsky and Ross 2003).



It is important to recognize the implications of the curvilinear relationship between mastery and distress for our mediation model. Our path model confirms that distress increases as mastery lessens, but Figure 2 shows that distress increases at a faster rate the more mastery decreases. For example, Figure 2 shows that the distress increases much more when mastery decreases from a value of 3 to 2.5 than when mastery decreases from a value of 3.5 to 3. This means that threat will lead to distress by decreasing mastery, but the more threat decreases mastery, the stronger the repercussions for distress. The result will be a pernicious process: The indirect effects of threat on distress intensify as threat increases.

In additional analyses, we showed how the indirect relationship between threat and distress strengthened as threat increased. The indirect relationship between threat and both aspects of distress was significant at all levels of threat; thus, higher levels of threat are indirectly related to higher levels of distress through lower levels of mastery. However, this indirect relationship increased in strength approximately 70% across the levels of threat for both outcomes. These additional analyses showed that escalations in threat are increasingly related to internalizing distress and anger. These increases occur because higher levels of threat are associated with lower levels of mastery, and mastery in turn has a stronger relationship with distress as it weakens. These analyses therefore support the mediation component of structural amplification. They do not, however, examine the second component of structural amplification—whether mastery buffers the relationship between threat and distress—and this question is examined next.

## Buffering Analyses

	Internalizing	Anger
Threat	0.016	0.022
Mastery	-0.345 **	-0.445 **
Mastery <sup>2</sup>	0.369 **	0.456 **
Threat x Mastery	-0.035	-0.023
Threat x Mastery <sup>2</sup>	0.118 *	0.199 *
R <sup>2</sup>	0.243	0.218

\*p < .05. \*\*p < .01. Metric coefficients are presented. Models contain all control variables.

To examine whether mastery buffers the relationship between threat and distress, we test interactions in Table 2. A significant interaction suggests stress buffering by showing that the relationship between threat and distress differs depending on how much mastery someone has. Table 2 demonstrates that interactions between threat and mastery are significant for both internalizing and distress. For both outcomes, though, an interaction between threat and a *squared* term for mastery is significant. The interaction with the squared term for mastery is important because it indicates that the buffering effects of mastery are also non-linear.

Table 3 helps show how mastery can buffer stress non-linearly. Table 3 shows the relationship between threat and each measure of distress at different levels of mastery. At low levels of mastery, threat is positively related to both measures of distress. When people had low levels of mastery, then, more frequent threat tended to be associated with higher levels of internalizing and anger. Threat is not significantly associated with either distress measure at moderate levels of mastery. This shows a buffering effect. Moderate levels of mastery prevented the adverse relationship between threat and mental health that occurred at low levels of mastery. At high levels of mastery, we again see that threat is significantly associated with

both measures of distress, although more weakly than at low levels of mastery. This shows how the buffering effects of mastery are non-linear—the buffering effects of mastery change across levels of mastery.

TABLE 3			
Relationship between Threat and Distress across Levels of Mastery			
	Low Mastery	Moderate Mastery	High Mastery
Internalizing	0.205 *	0.022	0.076 *
Anger	0.299 *	0.028	0.155 *

\*p < .05. \*\*p < .01. Metric coefficients are presented. Models contain all control variables.

Mastery likely buffers the relationship between threat and distress non-linearly because many of the threats posed by modern warfare have a certain degree of randomness that hinders individual efficacy. The opposition often engages in “asymmetric warfare,” including guerrilla and other tactics whose strategy often has a basis in the unexpected (Knoops 2009). For example, the types of threats civilians were most likely to face—roadside improvised explosive devices or rocket/mortar attacks—are imprecise and often bely predictability, thereby nullifying personal efforts to alter their threat. Yet, individuals with a high sense of control are likely to blame themselves for even uncontrollable experiences, thereby exacerbating the stress of these experiences (Lachman and Weaver 1998). Individuals with a high degree of mastery may therefore assume responsibility for threats or assume that such threats are avoidable, even though threatening circumstances cannot be wholly prevented through individual efforts. These attributions of personal responsibility will enhance the stress caused by a sense of threat, thereby detracting from mastery’s buffering effects.

These analyses therefore show that mastery does buffer the relationship between threat and distress, but these buffering effects are not consistent across levels of mastery. As a result, mastery most unambiguously weakens the relationship between threat and distress at moderate levels of mastery, with only partial buffering effects observed at high levels of mastery. In general, though, our analyses show that mastery both mediates and buffers the relationship between threat and distress, thereby indicating that the dual mediating and buffering components of structural amplification can help explain how threat is related to distress among civilians in Iraq and Afghanistan.

### **Discussion**

Although research has examined the mental health toll of serving in Iraq and Afghanistan among military personnel, far less research has examined civilians who work alongside military personnel. The current research shows that civilians are often exposed to important adversities when working in these conditions, as almost two-thirds of the civilians examined in this study reported experiencing a sense of threat during their deployment. Furthermore, over a third of the civilians indicated a fair degree of regular exposure to this stressor in terms of experiencing it at least a few times a month. This research also suggests that exposure to this stressor has important ramifications for mental health. Among civilians in Iraq and Afghanistan, greater levels of threat are related to higher levels of distress across internalizing and externalizing dimensions of emotional distress.

The analyses highlight how attention to structural amplification may help to explain why threat is associated with distress among civilians in a military combat environment. Structural amplification occurs when a resource both mediates and buffers the effects of a stressor, so that



the stressor depletes a resource that would otherwise offset its effects (Ross and Mirowsky 2006). The current analyses show that threat is associated with lower levels of a psychological resource in the form of mastery, thereby substantially explaining the relationship between threat and both forms of distress. This fulfills the mediation component of structural amplification. These analyses also show that mastery buffers the effects of threat, in turn satisfying the buffering component of structural amplification. Together, then, these analyses not only suggest that greater threat leads to greater psychological distress through reductions in mastery, but also that threat amplifies its effects on distress by depriving individuals of a psychological resource that would otherwise offset the mental health effects of threat.

One important caution that should be taken involves the study's use of a cross-sectional sample. It is possible that individuals with lower levels of mastery or greater distress may perceive or recall greater threats in the environment. It is also possible that individuals with lower levels of perceived control may less actively attempt to avoid situations or work roles that expose them to greater levels of threat. However, previous research on ambient threat demonstrates that processes of structural amplification established in cross-sectional analyses are reproduced in longitudinal research. In particular, research indicates that perceptions of ambient stressors are associated with psychological distress over time (Christie-Mizell, Steelman, and Stewart 2003; Latkin and Curry 2003). This research therefore supports a causal interpretation of these analyses. Yet, because these analyses are based on data gathered at one point in time, they can only be taken as suggestive of the processes that are likely to occur for civilians working in war zones. Additional research should consider how these processes occur longitudinally, especially by examining individuals prior to and during deployment.

At the same time, this research strongly suggests that additional attention should be paid to the mental health costs incurred by this overlooked segment of the U.S.'s military's "total force". Quite literally thousands of civilians a year have been deployed with military personnel to support OEF and OIF, and this research shows that many of these civilians are exposed to a potent stressor that may have long-term mental health costs. We did not examine post-traumatic stress disorder (PTSD) in this research because it may take several months after withdrawing from a stressful environment for symptoms of PTSD to be exhibited (Bliese et al. 2007). However, the degree to which civilians are exposed to and appear to be affected by threatening conditions suggests that they may be at increased risk for PTSD when withdrawn from the field. Furthermore, even if clinically-relevant levels of PTSD are not incurred, long-term immersion within threatening conditions may carry over into a more general sense of risk and lack of security that can affect social relationships and result in greater distress (Ross and Mirowsky 2009), as well as possibly harming work productivity. Both researchers and public policy-makers should therefore pay greater attention to the potential long-term mental health effects of working in war conditions among civilians, the extent to which stress exposure among civilians may inhibit functioning during deployment to these war conditions, and the effects of wartime stress on family and friend relationships post-deployment. These results also suggest one way of minimizing the effects of threat on distress among civilians. Since threat is indirectly related to distress through lower levels of mastery, one way to help avoid distress is by preventing losses in mastery, possibly through enhanced opportunities for self-efficacy in additional components of the work role.

At the same time, it is also important to emphasize that this research depicts a curvilinear relationship between mastery and both forms of distress, in which the relationship between

mastery and distress strengthens as mastery decreases. Since the relationship between mastery and distress is stronger at lower levels of mastery, the indirect relationship between threat and distress grows stronger as mastery decreases with greater threat. These findings have relevance for broader sociological understandings of the stress process. Structural amplification typically involves the depletion of a buffering resource by a stressor. However, the results of the current research show that a stressor can amplify its own effects simply by depleting a resource that is more strongly related to distress at lower levels of the resource. We call this amplifying effect “non-linear structural amplification.” The current research suggests that non-linear structural amplification is especially likely to occur when mastery is being examined as a mediator under structural conditions of high constraint. Non-linear structural amplification will occur because these conditions provide considerable opportunities to frustrate individuals who attempt to act on beliefs of a high degree of personal control. Non-linear structural amplification is therefore not simply an individual stress process, but is instead the result of structural conditions which weaken the mental health benefits of high levels of mastery. Additional research should therefore examine whether structural conditions of constraint lead to non-linear structural amplification involving additional stressors. Research should also examine how variations in conditions of structural constraint lead to variations in the occurrence of non-linear structural amplification.

An intriguing additional result of this research suggests that depletions in mastery may be beneficial for mental health when high levels of mastery detract from the resource’s buffering effects. This is suggested by results showing that mastery buffered the relationship between threat and distress non-linearly, with mastery’s buffering effects substantially weaker at high levels of mastery than moderate levels of mastery. However, the benefits of reductions in

mastery are fairly specific, as they apply only when very high levels of mastery are reduced to moderate levels. This suggests that more conventional forms of structural amplification—in which threat amplified its effects by reducing a buffering resource—also occurred, but were specific to when moderate or high levels of mastery were reduced to low levels. We also examined a set of ancillary analyses which tested only linear forms of buffering, and found no evidence of buffering for anger. Non-linear stress buffering is therefore especially important to consider in future research because buffering effects may be overlooked if non-linearities are not taken into account. Little research has examined non-linear stress buffering, though, and additional research should consider whether mastery is more likely to non-linearly buffer stressors when the stressors contain a substantial degree of randomness or are beyond individual ameliorative efforts.

It should also be noted that direct relationships between threat and both measures of distress remained significant even after indirect relationships through mastery were taken into account. This suggests that additional mechanisms beyond mastery may play a further role in structural amplification. One of the most likely of these is unit cohesion because unit cohesion has historically been emphasized as vital for maintaining functioning within the military (Stouffer et al. 1949; Wessely 2006). Moreover, recent military research supports the benefits of cohesion for mental health (Du Preez et al. 2012; Mulligan et al. 2010). This suggests that cohesion may both have a direct effect on mental health and buffer the effects of threat among civilians working with the military. Threat exposure may however deplete unit cohesion because threatening circumstances are likely to lead individuals to be more suspicious and less trustful (Ross 2011). Pairing the mental health benefits of cohesion with the potential loss of cohesion

due to threat suggests that unit cohesion may act as an additional mechanism for structural amplification.

In conclusion, research on the effects of working within war conditions has largely concentrated on military personnel. The current research shows that, although civilians who work for the military in areas of conflict do not engage in combat, they are often exposed to pernicious conditions that may have substantial consequences for psychological well-being. Additional research on the mental health effects of war should therefore consider civilians who work with military personnel, as well as the psychological mechanisms that likely explain these effects. In particular, attention to the process of structural amplification is likely to show how the stresses of working in war are a detriment to mental health. As the U.S. military continues to engage in hostilities around the globe, it is important to consider how the individuals who support these efforts are affected.

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## Discussion Questions for “The Threat of War and Psychological Distress among Civilians Working in Iraq and Afghanistan”

Alex Bierman & Ryan Kelty

1. What does it mean that mastery is expected to mediate and buffer the relationship between threat and psychological distress? Describe at least one reason why the authors expect each of these functions to occur.
2. What is meant by the term structural amplification and how is it applied in this article?
3. The authors find that mastery is associated with distress in a “complex way.” Describe how this relationship is complex. Also describe the implications of this complexity for the way that mastery mediates the relationship between threat and psychological distress.
4. Why do the authors believe that they find a complex relationship between mastery and psychological distress in this sample?
5. The authors find that mastery does not consistently buffer the relationship between threat and psychological distress. Describe this inconsistency, as well as why the authors believe it occurs.
6. In their discussion section, the authors present a concept of “non-linear structural amplification.” What is non-linear structural amplification, and under what conditions do the authors argue that it is most likely to occur?
7. This study focuses on American civilians working for the Department of the Army (federal employees). Given the findings in this study, what, if any, responsibility does the U.S. have for the short/long term mental health of these civilians?