"Dehumanizing the Enemy: The Intersection of Neuroethics and Military Ethics"
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1. Introduction

How do you teach troops to kill without losing control of exactly whom they kill, how, when, and in what way? It is an ancient question, as old as human conflict. Some may wonder why we continue to ask it. After all, the vast majority of modern, professional combat troops never commit atrocities. For every My Lai, Haditha, Mahmudiyah killings, or Kandahar massacre, there are thousands of military engagements that are conducted fully within the restraints of the Law of Armed Conflict.

Of course, the fact that such crimes are rare is cold comfort to the victims of atrocities, their loved ones, and their communities. And those aberrations from proper military conduct that do occur are costly in other ways. Public support for the military and its missions temporarily wanes in the wake of atrocities, while more lasting harm is done to efforts to win the "hearts and minds" of the enemy. At the same time, dangers to troops increase as new enemies are recruited on the strength of their revulsion at the crimes committed. General David Petraeus observed in 2009 that photos of the mistreatment of prisoners at Abu Ghraib "serve as potent recruiting material to attract new members to join the insurgency."[1]

An additional cost that must not be overlooked is the moral and psychological harm suffered by the perpetrators of war crimes. The idea of perpetration-induced trauma is no longer new or especially controversial.[2] While some atrocities are the isolated acts of disturbed or damaged individuals who would probably commit similar crimes in a

non-combat setting, most violations of the laws of war cannot be traced conveniently back to some pre-existing psychological or physical pathology. Certain conditions of war itself create war criminals, and the risk is highest for troops who must fight in the kind of conditions present in asymmetric conflicts involving insurgencies and unconventional warfare.[3] That grim reality places the burden firmly with those who order and lead troops into combat to do everything in their power to reduce the chances of those young men and women crossing lines that cannot be uncrossed and committing acts that may scar their minds and mar their souls[4].

The UN's Responsibility to Protect doctrine explicitly requires individual states and the international community to "protect populations from genocide, war crimes, ethnic cleansing and crimes against humanity."[5] This cannot be achieved without a better grasp of the psychological, biological (especially neurological), and cultural factors that come together to trigger such tragic events. Even with the best will in the world, militaries cannot improve training techniques or adjust deployment strategies appropriately unless they are armed with the right knowledge.

The urgency of this problem is understood, and it has been tackled by several astute scholars who are well informed about the military or have direct personal experience with military service, writing from the perspective of disciplines such as philosophy and psychology. We wish to build on this important work and add new insights from the field of neuroscience. Technology such as neuroimaging allows us to see how the human brain reacts to different stimuli. It is essential that we gain a better understanding of how our troops can respond to combat conditions and relate to their enemies in that context. We can then allow that knowledge to inform how troops ought to

be trained and led so that vulnerable populations are protected and troops have the best possible chance of surviving their military experiences psychologically sound, with both their humanity and the public image of the US military intact.

An important issue concerns where the responsibility lies to research, identify, plan and execute policy changes that will reduce the probability both of war crimes and psychological damage to troops. Our view is that the UN's Responsibility to Protect doctrine places a clear mandate on military leadership to ensure that these processes take place. It is not enough merely to point the finger of blame at subordinates for lapses in conduct. Taking responsibility requires making an effort to understand the powerful forces at play and being willing to act to shape them as much as possible to decrease risk. To fail to prioritize these activities in the face of compelling evidence for their significance and potential utility represents an abrogation of the duty imposed on military leadership by the R2P doctrine. Our goal here is to provide that evidence and illuminate a direction for research and training that will help military leadership to meet this vital aspect of its responsibility to protect.

2. The psychology of harm

What factors influence our willingness to harm fellow humans? A naïve psychological view might suggest that our willingness to harm is a simple function of our perception of the need for self-defense. However, a number of observations suggest a quite different picture of the key psychological factors involved. In some situations, which have famously provoked considerable moral consternation, people appear remarkably ready and willing to inflict harm on others. In other situations, people display a truly

remarkable reluctance. In neither case is the desire to protect oneself from direct physical harm the motivating factor.

First, we may consider some notable cases in which individuals have demonstrated a surprising willingness to harm others. In the 1960s, Stanley Milgram conducted a series of infamous but enlightening experiments concerning the willingness of individuals to inflict pain on an innocent person out of obedience to a perceived authority. He found that most people (some two-thirds of the population) can be led quite easily to transgress moral limits and perpetrate undeserved harm on others.

Milgram set up an experiment in which subjects were asked to flick switches to deliver increasingly strong jolts of electricity to a person in another room who was supposedly being given a memory quiz. The person taking the quiz was actually an actor (as was the "scientist" telling the subjects when to administer the shocks), and the electrocutions were faked. As the number of imaginary volts went up, the actor in the other room would scream as if in terrible pain, demand to be let go, and even complain about a potentially deadly heart condition. Then he would fall completely silent, as if having collapsed or died. Still the subjects, ordinary people, would continue to respond to the (fake) authority figure's commands.

> This is, perhaps, the most fundamental lesson of our study: ordinary people, simply doing their jobs, and without any particular hostility on their part, can become agents in a terrible destructive process. Moreover, even when the destructive effects of their work become patently clear, and they are asked to carry out actions incompatible with fundamental standards of morality, relatively few people have the resources needed to

> resist authority. A variety of inhibitions against disobeying authority come into play and successfully keep the person in his place.[6]

Milgram found that the odds that his subjects would resist authority rose significantly when he introduced variations into the experiment such as having an apparent peer rebel against the authority's commands (which seemed to give the subjects courage to resist the authority, too) or having a second authority challenge the first (which left the subjects unsure which authority to obey and shattered the subjects' illusion that they were not responsible to make their own decisions).[7] A highly significant practical issue concerns what other psychological resources might allow troops to identify and resist misguided authority and/or their own negative emotional impulses. We believe that a number of relatively straightforward measures can, when combined, provide troops with powerful resources sufficient to counterbalance natural psychological pressures to be complicit in war crimes. These steps, which are discussed in further detail in this sections that follow, include: fostering explicit awareness of the powerful psychological processes at play (including the effects of authority and dehumanizing); providing training programs, informed by and consistent with current science, to improve psychological agility; increasing alertness to warning signs that indicate psychological slippage, establishing mechanisms for remediation or removal from combat of individuals at risk for full-blown psychological disintegration, and consistently instilling and reinforcing a powerful and emotionally felt moral code tied to a legacy of honor - the code of the warrior.

Do the factors that Milgram was able to isolate and identify in the laboratory have ecological validity? In other words, can they be seen to be at play in real-world atrocities? Christopher R. Browning's excellent work, *Ordinary Men: Reserve Police Battalion 101*

and the Final Solution in Poland[8] provides compelling evidence for this. Browning describes how members of the Nazi police battalion 101 were led to commit the mass murder of Jewish women, children, and elders:

> The largest group within the battalion did whatever they were asked to do, without ever risking the onus of confronting authority or appearing weak, but they did not volunteer for or celebrate the killing. Increasingly numb and brutalized, they felt more pity for themselves because of the "unpleasant" work they had been assigned than they did for their dehumanized victims. For the most part, they did not think what they were doing was wrong or immoral, because the killing was sanctioned by legitimate authority. Indeed, for the most part they did not try to think, period. (Browning, 215-216).

Most of the "ordinary men" Browning studied were not eager killers, and they suffered a wide range of negative psychological effects as the result of their actions.

While both Browning and Milgram point to the important role of authority, Browning's study indicates this cannot have been the only factor. The members of police battalion 101, for example, could have resisted, and they chose not to do so. Browning notes that there were "nonshooters" in the battalion who asked to be exempted from the killing and were allowed not to participate.[9] Browning argues that pressure from authority and peers would likely not have been enough to push the members of police battalion 101 past their moral qualms without the broader context of Nazi society that was awash in propaganda calculated to dehumanize the Jewish people: "A combination of situational factors and ideological overlap that concurred on the enemy status and

dehumanization of the victims was sufficient to turn 'ordinary men' into 'willing executioners.'"[10]

The conclusion that can be drawn from these studies, and other work in social psychology, such as the Stanford prison experiment[11], is that authority and dehumanization can combine to create an alarming willingness for individuals to harm others, even when they face no immediate danger to themselves. In other cases, people may be surprisingly resistant to harming others, even in the face of grave danger. As Lt. Col. Dave Grossman illuminated in his groundbreaking book, *On Killing: The Psychological Costs of Learning to Kill in War and Society,* it is actually not that easy to train troops to kill enemy combatants, let alone to mass-murder civilians.

In the context of a traditional battle with uniformed forces on both sides, one would expect less resistance to killing. After all, it is a case of kill-or-be-killed. Self-preservation is a strong instinct. Nevertheless, Grossman's research concludes that in many such historical engagements, troops were reluctant to take kill shots. He notes that in the Civil War, 90% of the muskets recovered from the battlefield were still loaded, and some 50% of these had been reloaded multiple times without being fired – one was discovered with 23 rounds jammed into its barrel.[12] Even in the face of enemy fire, to which they presumably succumbed, an appreciable number of soldiers would reload and reload, over and over again, unwilling or unable to actually fire upon their enemy.

Grossman cites the well-known post-WWII study by Brigadier General S.L.A. Marshall, *Men Against Fire*, which concluded that only 15-20% of soldiers attempted to shoot to kill.[13] The methodology of the Marshall study has been challenged, but there remains significant support for its general conclusions.[14] The U.S. military found it so

persuasive that, following the Marshall study, training methods were altered to endeavor to improve so-called "kill ratios" – that is, to increase the lethality of our troops.

3. Dehumanizing and trauma

David Livingstone Smith discusses some of the implications and effects of the Marshall study in his insightful book, *Less Than Human: Why We Demean, Enslave, and Exterminate Others*:

> Although it sounds very nasty, and Marshall never put it quite this way, his observations imply that military training should concentrate on overriding the recruit's moral integrity, so that he or she will have no scruples about killing on command. Moral reservations are – in Marshall's words – a "handicap" that prevents the soldier from doing his job. […] The U.S. armed forces overhauled their system of military training to try to solve the problems that Marshall identified. […] Apparently as a result, U.S. soldiers' ratio of fire increased during the Korean conflict, and by the time the Vietnam War rolled around, American troops had become much more efficient killers. But this solution created a whole new problem. The troops did better in battle, and the ratio of fire skyrocketed, but so did the incidence of combat-related psychological disorders.

As will become apparent, we believe the research suggests that dehumanization can play a more nuanced role in military training. Hence, we do not join with Livingstone Smith's view that effective military training involves a wholesale overriding of the

recruit's moral integrity. Instead, we think that their moral sentiments need to be preserved and carefully directed. Recruits need to learn how to put aside temporarily some very natural and very powerful human moral responses, if they are to be effective in combat. This puts our troops in some moral peril, yet we do not think this has to be done at the cost of throwing away their moral compasses. Our aim is to shed light on how we can help recruits achieve a stable balance when we ask them to walk a moral tightrope. To do this, we base our account not just on cutting edge research in psychology and neuroscience, but also on an appreciation of and respect for modern military practice.

Grossman illuminates some of the methods that have been adopted over the years to help troops achieve emotional distance from their enemies. Troops have been drilled to fire on human-shaped targets but not to think about the act of killing itself. The focus has been placed on the mechanics of aiming and firing and responding quickly to changing scenarios. Troops have been taught to "neutralize targets" as efficiently as possible and the word "kill" has been carefully avoided.

Livingstone Smith points out that modern civilian society seems to support this approach and itself fails to confront the reality that waging war involves authorizing the intentional killing of other human beings:

> [W]e (contemporary Americans) go to great lengths to avoid acknowledging the simple and obvious truth that war is all about killing people. Read the newspapers and listen to the speeches of our politicians. Young men and women are called to "serve their country" by going to war. When they're killed, we're told that they "gave their life for their country" (a foolish idea: soldiers' lives are taken, not given). But how

> often do you hear young people asked to go to war to *kill people* for their country?[15]

In other words, we persuade people to kill on our behalf by describing the actions of war, where possible, in terms that sound wholesome, moral, and inspiring; and where this is not possible we use neutral objectifying terms that cloak the emotional impact of these actions. A positive impact of this is to emphasize the warrior virtues, such as loyalty, discipline, honor, courage, and sacrifice (which are all very real and necessary), yet a more unfortunate consequence is that this language downplays the negative effects of war on those who kill. It is a cruel bait-and-switch, made worse by the lack of sustained support for veterans who are living with those effects. As novelist C.S. Harris laments: "We don't take good care of the men we ask to risk their lives and health for us, do we? We use them, and then when they're no longer of value, we toss them away."[16]

Propaganda is not only employed to recruit troops, however. It is also applied to maintain the aggressive stance of troops against an enemy with whom they are already engaged. Propaganda that tries to deny the humanity of enemies and associate them with subhuman animals is a common and effective tool for increasing aggression and breaking down the resistance to killing. This dehumanization can be achieved through the use of animal imagery and abusive language. As Grossman explains:

> It is so much easier to kill someone if they look distinctly different than you. If your propaganda machine can convince your soldiers that their opponents are not really human but are "inferior forms of life," then their natural resistance to killing their own species will be reduced. Often the

> enemy's humanity is denied by referring to him as a "gook," "Kraut," or "Nip."[17]

This enemy-as-subhuman approach plays off of what psychologists call "in-group bias." In other words, humans are basically tribal or clannish. We tend to fear and devalue those who are not members of our "tribe" and view them as potential threats:

> We are innately biased against outsiders. This bias is seized upon and manipulated by indoctrination and propaganda to motivate men and women to slaughter one another. This is done by inducing men to regard their enemies as subhuman creatures, which overrides their natural, biological inhibitions against killing. So dehumanization has the specific function of unleashing aggression in war.[18]

This type of dehumanization is one of the key factors that Browning highlights in the transformation of the members of police battalion 101 into efficient mass-murderers. Milgram also notes, "Systematic devaluation of the victim provides a measure of psychological justification for brutal treatment of the victim and has been the constant accompaniment of massacres, pogroms, and wars."[19]

Given that dehumanization plays such an important role in enabling murder and other atrocities, one response would be to suggest that all forms of dehumanization should be resisted, rather than being incorporated into military training. However, this view is also problematic for anyone who is not a pacifist. If we accept some version of Just War Theory, and therefore endorse the view that violent military force is sometimes required in defense of a just cause, then we are cornered by the reality that troops do need to be trained to kill. Indeed, for justified military actions, there is a strong moral argument

that military training should, first and foremost, be directed at enabling our troops to kill in the most effective and efficient manner possible. We doubt this can be accomplished without allowing some form of dehumanization of the enemy (although, as we will later note, this should be coupled with equally intentionally re-humanization). Hence, the central question here is, are some forms of dehumanization less morally perilous than others? First, are there ways of dehumanizing the enemy that might promote military effectiveness in combat, yet achieve this end without lowering troops' resistance to *all* types (and targets) of killing, i.e. those not sanctioned by the laws of war? Second, how can we mitigate the psychological costs of war, for both moral and practical reasons?

The act of dehumanizing, both in the context of war and psychological experiments, is strongly associated with psychological trauma. The Milgram and Stanford prison experiments provoked changes in the ethical oversight of psychological experiments because of the trauma experienced by participants who were horrified by their own willingness to harm others. More recent research indicates that the mere act of ostracizing others, such as excluding someone from a simple game of catch when instructed to so by the experimenter, induces a variety of negative psychological effects in the ostracizer, including increased negative affect and decreased senses of personal autonomy and social connectedness.[20] It is little wonder, then, that the much more extreme and visceral actions that follow from dehumanizing an enemy have often been anecdotally cited as an important factor in the psychological adjustment of troops returning from conflict.

While more work is needed to establish direct links between dehumanizing and diagnoses such as post-traumatic stress disorder in veterans, recent findings in

psychological science, combined with accounts from military scholars, already make a compelling case that the horror, shame, and guilt associated with having participated in actions that they cannot reconcile with their 'civilian' sense of self represent major factors that determine veterans' subsequent health, well-being, and psychological adjustment. For instance, recent research indicates that negative affect[21] and a perceived sense of social disconnection[22] have powerful effects on both physical and psychological health. Amazingly, these factors are more predictive than physical or external conditions, which have traditionally been thought to be more important, such as economic circumstances, safety, hunger, and homelessness.[23] When we consider why troops have often been unwilling or unable to shoot at the enemy, it is worth considering that they are indeed engaged in a form of self-defense: their unconscious motivation is not so much to protect the integrity of their bodies but rather the integrity of their sense of self[24]. The challenge, then, is to construct training and conditions that help our troops return from war whole, both in body and in soul[25].

4. Optimal Cognitive Function

Ideal troops should not just be reconciled to their military actions in a manner that allows them to return to a well-adjusted civilian life, they should also have a high degree of mental flexibility in the field. They should be trained in a way that optimizes their ability to fluidly switch among roles such as active combatant, peacekeeper, and military escort/trainer. However, the psychological demands associated with switching between such dissimilar roles should not be underestimated. Our research demonstrates that there is a fundamental tension between the brain areas that we use to understand the

experiential viewpoint of others and the brain areas we use for emotionally disengaged analytic thinking, focused visual attention, and motor planning.[26] In general, when we turn on one of these networks of brain regions, then we suppress activity in the other. The mutually antagonistic relationship between these networks is a fundamental feature of the human brain – it is a very marked neurophysiological effect involving much of the human cortex, and it was observed long before we understood its cognitive significance.[27] It can be detected in the brain even when participants are not engaged in any task[28]. It is also a marker of healthy brain function. Disruptions in the mutually suppressive relationship between these brain networks has been clearly linked to a variety of major mental disorders and to poor performance on tasks.[29]

What this extensive research tells us is that the tension between analytic and empathetic thinking is an inescapable feature of our evolutionary heritage. Our arms were designed by evolution to be wonderfully adaptive and efficient structures, capable of many uses. Yet they will never be effective tools for scratching our own backs. No one in his right mind would break his elbow in the hopes that doing so might allow him to maintain the arm's existing functions and also enable him to reach effectively behind himself. Similarly, current research indicates that the tension between analytic and empathetic thought represents a fundament constraint of the highly effective neural structure that evolution has designed. Unless and until we acquire a much more sophisticated understanding of neural engineering that contradicts this view, we are well advised to accept that disruptions of this tension will only result in mental disintegration.

On the modern battlefield, our troops are asked on the one hand to be ready to fight an enemy with clear-sighted and dispassionate efficiency, and, on the other hand,

we expect them to be sensitive to the mores of a foreign culture, enabling them to win the hearts and minds of its citizenry while forming strong and mutually trusting working relationships with members of its military. In other words, we ask them to be both highly analytic and highly empathetic. Hence, at first sight, it might appear that the demands of the modern battlefield are simply impossible to manage: they are bound to drive our troops insane. Fortunately, there is reason to believe the situation is not quite so bad. The psychological demands of modern warfare are extreme; however, we believe they can be accommodated within the bounds of healthy human function. This is suggested both by a more careful consideration of what the research shows, and by a parallel example of a working context that requires both analysis and empathy.

First, while the research indicates that we cannot be both analytic and empathetic at the same time, a key feature of our neural function is that we are constantly cycling between these two networks. This natural cycling between analytic and empathetic mental modes is part of what is disrupted in individuals with mental disorders. Tasks temporarily and partially disrupt this natural cycling, pushing us more into one mode or the other for more sustained periods. However, we know that when a task is used to push healthy participants into one mode, and they are then given a task-free break, they tend to compensate by cycling deeper into the opposing mode the harder they were pushed away from it.[30] Therefore, no absolute obstacle is presented by the mere fact that individuals are required to make use of both modes in a particular working context. In fact, provided the switching between modes is well managed, this is likely to be more healthy and sustainable, and less fatiguing, than a work environment that only calls on one of these cognitive modes. The trick is just managing the switching between modes – ensuring that

one is in the appropriate cognitive mode to effectively tackle the task at hand. This requires attending to appropriate cues and the possession of a broader cognitive model that allows us to make good use of those cues[31].

Surgeons face a tension between analytic and empathetic thinking that is similar in some respects to that faced by the modern combatant[32]. The surgeon learns to see his or her patient as a biological machine in need of fixing, a task that is clearly analytic in nature. When surgeons come to wield their scalpels, empathetic thinking is not only of little use to them, but is, in fact, a positive hindrance. There is no use in surgeons contemplating the emotional significance of their immediately harmful actions as they cut into their patients. A number of steps are taken to help avoid the distracting effects of inappropriately engaging empathetic thinking at these moments: the patient's face is usually occluded from view (usually only the anesthetist views the face, in order to be sensitive to facial cues that might indicate waking), and there is generally a prohibition against performing surgery on close friends and relatives. Yet the surgeon's job is rarely accomplished in the operating theatre alone. Surgeons usually meet the patient and family members both before and after the surgery: moments when a more empathetic approach is not only useful, but often essential both to ensuring fully informed consent for the procedure has been obtained, and for the patient's recovery.

Clearly, it can be hard to reconcile the adoption of these two very different cognitive modes towards the very same person. Hence, there is considerable concern about the bedside manner of many physicians, and concerns have been raised about the prevalence of dehumanization in medical practice. Nonetheless, these two modes are effectively reconciled by able physicians every day, and work in social psychology

suggests a number of concrete steps that are likely to facilitate their reconciliation in general medical practice.[33]

The broad cognitive context in which people work plays a highly significant role in their ability to reconcile these opposing cognitive modes. Accountants who stand up from working on spreadsheets at their computers to attend client meetings or chat with colleagues at the water cooler are not likely to have difficulties. In this case, the cues and cognitive context make adoption of the appropriate cognitive mode a simple matter. This is harder to achieve in a medical context, where the predominant mental model is to view patients as biological machines, and where many types of interaction require swift transitions between modes in response to subtle cues. When should a physician respond to the medical history a patient is describing by integrating it with a medical understanding of the condition, and when should she pause from this task to connect interpersonally with the patient's often distressed experience of that condition? Both modes are important to patient outcomes, but juggling them effectively is not always easy.

The tension faced by modern troops is even harder to reconcile. Physicians may at least reflect that their immediately harmful actions, whether they be surgical or the prescription of drugs with powerful side-effects such as chemotherapeutic agents, are actually aimed at healing patients. One step back and two steps forward is still progress in the right direction. However, no such luxury is afforded to combatants, who cannot miss the obvious fact that the harm they inflict can never be reconciled for the person at whom it is directed. Instead, they can only offset these acts of harm by justifying it in terms of the harm they prevented to their fellow troops, as well as appealing to more abstract

notions of their honor, service, and duty, and the larger purpose of the conflict in which they are engaged.

The profound psychological dissonance provoked by an act as ultimately harmful as killing can only be offset by the possession of a very strongly embedded cognitive model that allows it to be reconciled. If this positive cognitive model is not reinforced, some troops are bound to resolve the intolerable dissonance by adopting a cognitive model that is destructive, both to their military performance and to their own long-term emotional well-being.

As we will shortly discuss, the destructive effects of dehumanizing, even when contained, are always bound to lurk beneath the surface in armed conflict. The simple reason for this is that dehumanizing represents a natural, and often psychologically necessary, coping mechanism. However, before fully entering into that discussion, it is important to establish some key points. First, some readers may be skeptical that something as abstract as cognitive context is likely to have a major influence on brain function. Second, it is crucial to distinguish between different types of dehumanizing. Third, it is necessary to establish a neural basis for our claim that dehumanizing has negative effects not just on the individual who is dehumanized, but also on the dehumanizer.

5. Dehumanizing and the Brain

The human brain has a mixed architecture. A great many of the computations it achieves, which allow us to perceive and act, occur largely automatically and in parallel. These processes have some capacity limits, yet it has long been observed that the greatest

limits on human performance reflect the limited capacity of our higher cognitive functions. Until recently, it was thought that these effortful and cognitively demanding processes reflected the operation of a single, unified general reasoning system. However, we now know this is not true. There are two largely distinct systems that are involved in cognitively effortful processing. In the brain, these correspond to the two networks of brain areas that we previously described as being involved in analytic and empathetic thought. The distinction between these systems has only become apparent as a result of brain imaging technology. In behavioral tests the two systems appeared to be a single system because of their tendency to mutually suppress, and hence trade off with, one another. It is striking that this division, which was only hinted at in decades of behavioral research on human performance, is so stark and obvious when we look into the brain.

Brain imaging gives us a new way of looking at cognitive effort. Instead of looking at indirect behavioral measures of effort, we can more directly see how different types of cognition engage these two networks. Of particular concern here is how this relates to the phenomenon of dehumanization. Recent work in psychology suggests there is an important distinction between two types of dehumanizing.[34] On the one hand, we can equate people with inanimate objects or machines (in a military context, this is reflected by the use of expressions such as "neutralizing targets"). On the other hand, we can equate people with animate but "lesser" beings, i.e. non-human, dangerous animals, or imaginary monsters (virtually all military propaganda about the enemy involves examples of this, but perhaps the most notorious example is the Nazi propaganda film "The Eternal Jew" that directly equates Jews with vermin[35]). The distinction between these two forms of dehumanizing is supported by behavioral work. This shows, for

instance, that these different forms of dehumanizing are associated with different emotions: objectifying people is associated with indifference on the part of the dehumanizer, and feelings of sadness and anger in the dehumanized; whereas animalistic dehumanization is associated with disgust on the part of the dehumanizer, and feelings of shame and guilt in the dehumanized.[36]

We recently conducted a study that examines what happens in the brain when ordinary participants of a wide range of ages view social narratives similar to dehumanizing propaganda.[37] To those who are not attuned to social perception, these narratives might appear broadly similar in content. All involved depictions of people engaged in different activities. For instance, one stimulus depicted a thirsty runner kneeling down to drink from a puddle (acting like an animal), while another stimulus depicted a girl stressed by an exam who nonetheless refuses an opportunity to cheat (the opposite of acting like an animal). It is obvious that these prompts suggest differences about the people depicted. It is perhaps more surprising how clear the differences are in the brains of observers who perceive these different kinds of minds. Specifically, the two limited capacity networks, involved in analytic and empathetic reasoning, showed quite different patterns of recruitment depending on relatively subtle aspects of how people are depicted. The major networks of our brains are extremely sensitive to these social cues, even though we often fail to realize these profound differences in our how we are thinking.

On the basis of this work, we can identify four broad cognitive modes that humans use to think about other people, which are distinct in terms of the extent and type of cognitive effort involved: (1) When we think of people as objects, we barely engage

any effortful cognitive processing. We remain indifferent, including to their suffering, and have cognitive resources to spare. (2) When we think about people as biological machines, as a doctor or neuroscientist does, we engage analytic but not empathetic reasoning areas. (3) When we humanize people (i.e. when we think about their experiential point of view), we engage empathetic but not analytic reasoning areas. (4) When we animalistically dehumanize people, or engage in Machiavellian thinking, we engage both networks. In this mode we think about the person as an agent driven by beliefs and desires, but we refuse to recognize the other as a truly feeling being similar to ourselves. We recognize it if the other person is suffering, but we do not feel concern about it - we may even take sadistic pleasure in it. Not only is this last mode the most cognitively demanding, as it requires both our analytic and our empathetic cognitive resources, but it also breaks with our usual tendency to suppress one network when we activate the other. This cognitive mode has greater similarity to the typical pattern seen in individuals with mental disorders than it does to the typical pattern seen in healthy individuals.

We call this fourth mode a blended cognitive mode because it involves aspects of both analytic and empathetic thinking. It is often useful. It undoubtedly represents an important aspect of healthy human thinking, but it is also limited and unstable. It is engaged with we think creatively, which sometimes yields important insights, but also often yields bizarre, illogical, and unhelpful ideas. It is important when we need to think politically or respond to someone who has malevolent intentions, yet it involves a failure to fully appreciate the other's experiential world. It also occurs more frequently when people are chronically fatigued or sleep deprived. While it is no doubt perfectly healthy

to cycle between this and other cognitive modes, it is plausible that individuals who chronically adopt this cognitive mode are putting their psychological integrity at risk.

We believe that we must train our troops to dehumanize the enemy. To ask them to consider the humanity of an individual at the very moment they are killing that person is simply to ask too much. Such a stance would hinder their ability to think in a clear, logical, and efficient manner, putting themselves and their fellow combatants at risk. Yet, we do no better if we allow our troops to animalistically dehumanize the enemy. This stance may provide them with a motivation to kill, but it is neither a desirable motivation nor a cognitively efficient state. Instead, we should encourage our troops to objectify the enemy, at least while they are engaged in the business of combat. This is the only mode that frees their cognitive resources to deal with the strategic and performance demands of combat.

6. Dehumanizing in a Military Context

Animalistic dehumanization is generally what we associate with atrocities that spring from rage and hatred. They are often acts of revenge, and may trigger vicious cycles of reprisals. Unlike objectifying, this is not an emotionally disengaged cognitive mode. It is an emotionally dysfunctional cognitive mode. WWII combat veteran J. Glenn Gray brings home the agony of the warrior who has become trapped in such a cycle in his modern classic on the experience of war, *The Warriors: Reflections on Men in Battle*:

> The ugliness of a war against an enemy conceived to be subhuman can hardly be exaggerated. There is an unredeemed quality to battle experienced under these conditions, which blunts all senses and

> perceptions. Traditional appeals of war are corroded by the demands of a war of extermination, where conventional rules no longer apply. For all its inhumanity, war is a profoundly human institution…. This image of the enemy as beast lessens even the satisfaction in destruction, for there is no proper regard for the worth of the object destroyed…. The joys of comradeship, keenness of perception, and sensual delights [are] lessened…. No aesthetic reconciliation with one's fate as a warrior [is] likely because no moral purgation [is] possible.[38]

Objectifying the enemy is a lesser evil. It is better to view our enemies as mere things, like cogs in a wheel or blips on a computer screen, than to hold on to the "image of the enemy as beast," to borrow Gray's language. Yet objectification is certainly not without its moral perils. We know that Nazi propaganda made liberal use of both forms of dehumanization against the Jews and others, and it seems probable that the grotesquely efficient massacres committed in the concentration camps during the Holocaust were primarily conducted through cold, mechanistic objectification. It was meticulously organized mass murder. As Hannah Arendt so vividly describes in *Eichmann in Jerusalem: A Report on the Banality of Evil,* "The extermination machinery had been planned and perfected in all its details long before the horror of war struck Germany herself, and its intricate bureaucracy functioned with… unwavering precision."[39]

Objectification certainly has the potential to lead to moral negligence, and thence to horror at one's disregard for the humanity of others. All forms of dehumanization are toxic to some degree, and both animalistic and mechanistic dehumanization can be

pressed into service by those constructing conditions for the commission of atrocities. Our troops need to dehumanize their enemies at least to some extent in order to achieve the moral distance needed to do their jobs. Yet, in moments when they reflect upon their actions, they cannot escape the reality that they have killed another human. Even drone pilots, who operate at a safe distance using an interface that is nearly as removed as playing a video game, have been reported to suffer from post-traumatic stress disorder[40]. Similar belated realizations of horror have been reported by the crews of World War II bombers. Only psychopaths can permanently block a re-examination of their actions from an empathetic perspective. Objectifying is a necessary, but temporary, fix. Indeed, if we want our troops to maintain the capacity to question clearly immoral or illegal orders, then we would not want it any other way. And so, in the end, there is no avoiding the need for a larger frame that allows troops to reconcile their actions with the perspectives that are afforded by both analytic and empathetic modes of thought.

If we fail to reinforce this broader positive cognitive frame, then animalistic dehumanizing is bound to rear its head. It appears that a careful and limited disregard for others can be reconciled within such a frame. Surgeons do not feel guilt for cutting into their patients, because they know it was for a good end. Yet if they carelessly cut too much, some guilt is appropriate. The oncologist does not feel bad that the chemotherapy treatment brought a patient to her knees, provided the course was justified. But if a doctor encourages a treatment that would never work, rather than listening to the patient's wish to die more comfortably in the company of loved ones, then, again, re-examination of that action is appropriate.

The larger moral context is essential here, even more so for the combatant who cannot, and for his own well-being should not, escape a degree of sadness at the lives he has ended. Disregard for others, when limited and justified, can be reconciled. However, it is a much greater challenge to reconcile hatred, contempt, and acts of killing that are motivated by them. The psychological dissonance of honestly facing such actions can be almost unbearable for the individual. So powerful is our sense of allegiance to our tribe that these actions are often unbearable even if we had no hand in an atrocity, but it was done by the social group with which we identify. Often, the only route to relieving this pressure is the damaging fix of animalistically dehumanizing the enemy.

If our actions cannot be reconciled with recognition of the humanity of our enemies, then our only psychological escape route is to deny their humanity. The inevitable nature of this process can even be observed at a very distant remove from actual combat. When both undergraduates and typical American citizens are told that their in-group has perpetrated violence against an out-group, their sense of collective responsibility causes them to animalistically dehumanize the out-group.[41] We can only imagine how much more powerful this effect is when combatants learn of atrocities committed in the same theatre of war by their fellow troops. Psychological research indicates that witnessing such examples leads to a lowering of the ethical bar for the witnesses, unless the perpetrators are shunned for them [42]. It is exceedingly dangerous for such behavior to become normalized.

We believe that the only way to counter these tendencies is to emphasize a sense of social identification that is explicitly predicated on honorable conduct – that is, to inculcate the right kind of warrior's code.[43] Such a code will insist on bright lines

demarking honorable and dishonorable behavior, and will motivate troops to maintain these lines as a sacred obligation they owe to those who have come before them, to their fellow troops, and to themselves. They should be charged to act with honor because they have chosen to bind themselves to a particular set of values and norms; and their discipline should be such that that commitment will not waver, regardless of what perceptions they may have of those they fight. In this way, the process of social identification that is so essential to the psychological integrity of the combatant will serve to actively guard against what is otherwise a very natural and powerful human tendency to animalistically dehumanize the enemy.

There is an understandable temptation to employ animalistic dehumanization to motivate troops to kill, because it appeals to the natural passions that arise in combat settings. However, animalistic dehumanization is pernicious because it is at odds with maintaining discipline and control over one's actions and emotions. General Benoit Royal supports this point extremely well in his analysis of *The Ethical Challenges of the Soldier*:

> The soldier at war will always be liable to be overwhelmed by passion, a feeling of revenge, and the appeal of cruelty. In armies worthy of the name, it is right to require those who exercise command, at every level, to contain possible excesses of passion by their subordinates; for similar but more important reasons, it is essential that they prevent themselves using such excesses as a way of dramatically increasing their fervor in combat. …[T]he essence of the profession of arms [is]…the responsibility that the leader accepts for the use of force and the management of lethal risk.[44]

It therefore makes the most sense to continue the modern trend toward mechanistic, but not animalistic, dehumanization in military training. It is better to train troops to "neutralize targets" than to "exterminate the evil-doers." The latter may produce short-term gains, but it will undermine long-term goals and increase the odds of war crimes.

There is also the issue of reinforcing a cognitive model that clearly determines the appropriate context and targets for dehumanizing. It is one thing for troops to use a sanctioned form of mechanistic dehumanization to enable them to execute their legal orders and kill enemy combatants: legitimate targets. It is quite another for entire populations, including combatants and noncombatants, to be dehumanized en masse. In other words, dehumanization should be linked to a particular task and in response to specific actions or threats, not to a people. In legal terms, the issue is enforcing the rules of engagement. In cognitive terms, if the law is to be followed reliably in practice, troops need to be trained to recognize concrete cues and move rapidly into the appropriate cognitive mode in response. Ultimately, it may be possible to test for this ability and use these tests to determine fitness for combat. The mental readiness of troops to achieve such fluid and appropriate transitions is very important, because of the potential for one inappropriate action, even one that is within the rules of engagement but stems from the wrong psychological motivation, to trigger a vicious psychological circle that encourages more frequent and heinous inappropriate actions. One way to protect against this cycle of dehumanization is to actively humanize the civilian population put at greatest risk by the military engagement.

The US Army is attempting to implement something like this approach through the development of the Human Terrain System (HTS) program. This is the official HTS mission statement:

> The Human Terrain System develops, trains, and integrates a social science based research and analysis capability to support operationally relevant decision-making, to develop a knowledge base, and to enable sociocultural understanding across the operational environment.[45]

The program brings in subject matter experts, such as anthropologists, sociologists, historians, and linguists, to instruct soldiers about the people and cultures they are likely to encounter. Some of these subject matter experts are even embedded with the troops to provide real-time insights and guidance. The US Army has also joined forces with the Cultural Knowledge Consortium (CKC), a research consortium formed "to facilitate access among multi-disciplinary, worldwide, social science knowledge holders [to] foster collaborative engagement in support of socio-cultural analysis requirements… [to support] US government and military decision-makers, while supporting collaboration and knowledge sharing throughout the socio-cultural community."[46]

There is a lot to be gained by improving our troops' knowledge of and respect for the culture of those they fight. This process can assist in collaborative engagement. It is also likely to be protective of mental health. When troops lose that respect, they experience even greater combat trauma. In his deeply perceptive work, *Achilles in Vietnam: Combat Trauma and the Undoing of Character,* psychiatrist Dr. Jonathan Shay

stresses how important it is to the warrior to have the conviction that he participated in an *honorable* endeavor:

> Restoring honor to the enemy is an essential step in recovery from combat PTSD. While other things are obviously needed as well, the veteran's self-respect never fully recovers so long as he is unable to see the enemy as worthy. In the words of one of our patients, a war against subhuman vermin "has no honor."[47]

In other words, training to support the process of "re-humanization" of the enemy must be given the same attention as the training that allows troops to achieve the necessary psychological distance (mechanistic dehumanization or objectification) to be able to kill. This will support and strengthen troops' ability to appropriately shift between empathetic and analytic stances, so that they "learn to take only certain lives in certain ways, at certain times, and for certain reasons."[48]

Ted Van Baarda also makes a persuasive case that this kind of training can increase the likelihood that troops will recognize dangerous dehumanizing stances adopted by others and thus be able to raise red flags and intervene to prevent atrocities before they occur. He cites the example of Sergeant Hugh Thompson's intensely empathetic response to the vicious attack on the villagers of My Lai by American soldiers in the Vietnam War (a horrible crime that could have been even worse if Sergeant Thompson and his men had not intervened to rescue the few surviving villagers). Van Baard notes, "Where dehumanization of the enemy facilitates the commission of atrocities, the power of (re-)humanization serves as an antidote and a source for moral courage."[49] Military training must continually reinforce the principle that honor demands

warriors must show as much courage in preventing war *crimes* as they do in prosecuting legal warfare.

As we have argued elsewhere, by upholding standards, maintaining discipline, accepting certain restraints, and respecting their enemies, warriors can create a lifeline that they can use to pull themselves out of the hell of war and reintegrate into their society, should they survive to see peace restored. That is the purpose of the warrior's code of honor. It is a shield that guards the warrior's humanity.[50]

7. Conclusion

All forms of dehumanizing are potentially morally perilous. Hence, it is tempting to hope that we might be able to train our troops to fight without ever dehumanizing the enemy.[51] We acknowledge the pull towards this view; however we have come to the conclusion that it is naïve, and even dangerous, to suppose that our troops can and should consistently adopt a stance that requires them to empathize and identify with their opponents. Two observations we have mentioned strongly suggest this conclusion: the historical observation of low kill ratios in conflicts prior to military training aimed at helping troops to objectify the enemy; and the neurological observation that consideration of the humanity of others interferes with our ability to think and act with a clear-headed analytic mindset. Yet perhaps the most telling objection to this view is a matter of moral and psychological intuition. It strikes us that any attempt to square empathy or humanitarian concern for an individual with committing acts of extreme, intentional violence against that person represents a mindset that is too tortured and dysfunctional to condone. Troops should not be asked to love their enemies while inflicting suffering and

death upon them. This is the mindset of an abuser, not a mindset we wish to encourage in troops who will return to civilian life.

Violence should be seen as a last resort, but when it is necessary, those who must engage in it have no better option than to place consideration of the humanity of their targets, temporarily, to one side, using the psychological technique of objectification. Given the inevitability that our troops will be required to commit acts of violence towards others, objectification is a necessary psychological strategy that can both allow them to perform their duties well and also safeguard them from the perils of psychological disintegration. In our view, it is entirely consistent with military honor that troops should be enabled to practice a degree of psychological distance towards the enemy when the situation demands it. Such a carefully controlled and limited degree of interpersonal coldness need not be viewed at wrong. Indeed, when properly exercised, it may be viewed as a virtue. It is similar to the notion, which translates well from our analogy with healthcare, of clinical efficiency.

In other words, while we agree that the strategy of objectifying others is morally perilous, we do not regard it as pernicious. That term we reserve for animalistic dehumanizing. We suggest that objectification is a psychological tool that has a similar moral status to the weapons our troops are charged with operating. It is essential but dangerous and must be deployed with care and precision. Military leadership recognizes the duty to ensure troops are appropriately trained and monitored in their use of weapons. Similarly, it is the duty of leadership to ensure that troops are properly trained and monitored in their use of psychological distancing strategies. Indeed, the considered use

of such psychological strategies is no less essential to the honorable and efficient conduct of war than the physical weapons our modern military so visibly relies upon.

The best military leaders acknowledge and understand the full range of emotions combat troops may experience, but make it clear that intentional deviations from the warrior's code will not be tolerated. Experience has taught these leaders that preserving the humanity of their troops ultimately enhances the safety of those same troops. They will insist on holding the line at necessary objectification of the enemy without permitting animalistic dehumanization of the enemy. Such leaders recognize that excessive and vicious dehumanization of the enemy only clouds the troops' judgment, making them greater targets of hatred themselves, and causing them to underestimate their enemies through lack of respect.[52] Despite the difficulties, especially in urban and asymmetric conflict, great leaders demand that their troops do their utmost to differentiate combatants from civilian populations and re-humanize former combatants when they cease to be legitimate targets (i.e. when they become casualties or POWs).

The following is an excerpt from a celebrated speech given by Col. Tim Collins of the British Army, before taking his troops into Iraq in 2003:

> Iraq is steeped in history. It is the site of the Garden of Eden, of the Great Flood and the birthplace of Abraham. Tread lightly there. You will see things that no man could pay to see and you will have to go a long way to find a more decent, generous and upright people than the Iraqis. You will be embarrassed by their hospitality even though they have nothing. Don't treat them as refugees for they are in their own country. […] If there are casualties of war then remember that when they woke up and got dressed

> in the morning they did not plan to die this day. Allow them dignity in death. Bury them properly and mark their graves. […] It is a big step to take another human life. It is not to be done lightly. I know of men who have taken life needlessly in other conflicts. I can assure you they live with the Mark of Cain upon them. If someone surrenders to you then remember they have that right in international law and ensure that one day they go home to their family. The ones who wish to fight, well, we aim to please. If you harm the regiment or its history by over-enthusiasm in killing or in cowardice, know it is your family who will suffer. You will be shunned unless your conduct is of the highest for your deeds will follow you down through history. We will bring shame on neither our uniform nor our nation. […] Let's bring everyone home and leave Iraq a better place for us having been there. Our business now is north![53]

Our troops cannot and should not avoid dehumanizing their enemies to some degree. Just as it is their responsibility to only kill certain people in certain ways at certain times, it is the responsibility of leadership to help them accomplish this by training them to only dehumanize certain people in certain ways at certain times. It takes mental and emotional agility to switch rapidly between different cognitive modes; to go from seeing someone as a "target to be neutralized" to seeing him as a disarmed and wounded prisoner to whom one must render aid. Yet that agility is what morality, martial honor, and military effectiveness demand. Warriors have a duty to act with honor, regardless of whether their enemies do the same. This is a duty they owe to themselves,

to each other, and to their mission. Most fulfill it faithfully, sacrificing without complaint, and, to paraphrase Col. Tim Collins, bringing shame on neither their uniforms nor their nation.

The conduct of most troops in the face of extraordinary psychological demands is nothing short of exemplary. Nonetheless, we should not use this as an excuse to avoid the responsibility to provide better protection for their psychological well-being and for the populations with which they interact. Leadership and command climate represent key elements in this equation. A bad leader can create a corrupt command climate and signal attitudes that cause conditions in a unit to run very rapidly out of control.[54] In contrast, the tone that is set by a positive and conscientious authority figure who maintains discipline and embodies the warrior's code cannot be overstated. It signals the right type of cognitive model to the troops, for them to emulate. And there are further steps that the military should take to reinforce the example that great leaders offer and to embed this kind of model firmly in the minds of all our troops.

Our goal here has been to increase awareness of vital factors affecting the behavior of troops in combat and provide a glimpse of how insights that arise at the intersection of neuroscience, psychology, philosophy, and military ethics can help guide improvements in training, command climate, and ground conditions. Our hope is that this will provide meaningful support for the one critical mission upon which everyone can agree: that of bringing our troops safely home – their bodies and, no less important, their moral souls.

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[1] Matthew Alexander, "McCain Backs Torture As Recruiting Tool for Al Qaida; Policy Led to the Deaths of U.S. Soldiers in Iraq," *Huffington Post*, August 31, 2009.

[2] See especially Rachel M. MacNair, *Perpetration-Induced Traumatic Stress: The Psychological Consequences of Killing*, Westport, CT and London: Praeger Publishers, 2002.
[3] See Stephen J. Rockel and Rick Halpern, *Inventing Collateral Damage: Civilian Casualties, War, and Empire*, Toronto: Between the Lines, 2009.
[4] The reader should not interpret the use of the word 'soul' as a commitment to a dualistic metaphysics. Rather this is intended as a metaphorical use of language. It is our view that certain types of moral sentiment, which can be scientifically studied and which we believe have real and measurable effects on mental health, are difficult to capture using purely secular language, and can be more readily grasped by most people (including the non-religious) when theistic language is used. For a careful discussion of empirical evidence which has encouraged us to this view, the reader might examine: Jack, A. I., Robbins, P. A., Friedman, J. P., & Meyers, C. D. (in press). More than a feeling: Counterintuitive effects of compassion on moral judgment. In J. Sytsma (Ed.), Advances in Experimental Philosophy of Mind: Bloomsbury, London.
[5] "2005 World Summit Outcome," United Nations General Assembly, Sixtieth session, items 48 and 121 of the provisional agenda. A/60/L.1, 40 pages.
[6] Stanley Milgram, *Obedience to Authority: An Experimental View*, New York: Harper Perennial Modern Thought, 2009 edition, p. 6.
[7] Milgram p. 107 and 118.
[8] Christopher R. Browning, *Ordinary Men: Reserve Police Battalion 101 and the Final Solution in Poland*, New York: Aaron Asher Books/HarperCollins Publishers, 1992.
[9] Although somewhat less blameworthy than their peers, these men are certainly not laudable. For while they did not participate directly in the killings, they also did nothing to stop or even protest them. As Browning clarifies: "…they did not make principled objections against the regime and its murderous policies, they did not reproach their comrades" (Browning, p. 215).
[10] Browning, p. 216
11 Philip G. Zimbardo, *The Lucifer Effect: Understanding How Good People Turn Evil*, New York: Random House, 2007.
12 Lt. Col. Dave Grossman, *On Killing: The Psychological Cost of Learning to Kill in War and Society*, Boston: Little, Brown and Company, 1996, p.23.
13 Lt. Col. Dave Grossman, *On Killing: The Psychological Cost of Learning to Kill in War and Society*, Boston: Little, Brown and Company, 1996, p.3.
14 See K. C. Jordan, "Right for the Wrong Reasons: S. L. A. Marshall and the Ratio of Fire in Korea," *Journal of Military History*, 66, no. 1, 2002, pps. 135-162.
[15] Livingstone Smith p. 225.
[16] C.S. Harris, *What Darkness Brings*, New York: Penguin Publishing, 2013.
[17] Lt. Col. Dave Grossman, *On Killing: The Psychological Cost of Learning to Kill in War and Society*, Boston: Little, Brown and Company, 1996, p. 161.
[18] Livingstone Smith p. 71.
[19] Milgram p. 9.
[20] Legate N, Dehaan CR, Weinstein N, Ryan RM. Hurting You Hurts Me Too: The Psychological Costs of Complying With Ostracism. *Psychological Science*, February 27, 2013 doi: 10.1177/0956797612457951
21 Pressman SD, Gallagher MW, Lopez SJ (2013) Is the Emotion-Health Connection a "First-World Problem?" *Psychological Science.*
[22] Hawkley LC, Cacioppo JT (2010) Loneliness matters: a theoretical and empirical review of consequences and mechanisms. Ann Behav Med 40:218-227.
[23] Pressman SD, Gallagher MW, Lopez SJ (2013) Is the Emotion-Health Connection a "First-World Problem?" *Psychological Science*
[24] While this claim may seem surprising to readers who aren't familiar with research in social psychology, the authors intend this to be a quite uncontroversial statement. A great deal of research in social psychology, including but not limited to the citations already made, can be summarized as showing that we are very powerfully motivated to preserve our self-image. Indeed, this can be seen as the primary function of offering rationalizations (reasons/justifications for our actions). Rationalizations are a ubiquitous feature of human behavior, and scientific research has shown they frequently fail to hold up to close scrutiny. See for example: Nisbett, Richard, & Wilson, Timothy. (1977). Telling more than we can know: Verbal reports

on mental processes. Psychological Review, 84, 231-259; Haidt, Jonathan (2012). The Righteous Mind: Why Good People Are Divided by Politics and Religion. Pantheon. ISBN 978-0-307-37790-6.

[25] The substitution of the word 'soul' for 'sense of self' used in the previous sentence is intentional. Psychological research indicates that we have a complex folk-psychology of the self, and that the concept of the 'soul' is particularly tied to our sense of spiritual and moral identity. It is the ability of our troops to maintain this aspect of their self-image which we believe is put in critical danger by war and atrocity. For work on the concept of the soul, see for example: Richert, Rebekah A. & Harris, Paul L. (2006) The Ghost in My Body: Children's Developing Concept of the Soul. Journal of Cognition and Culture, 6 (3-4), p409-427.

[26] Jack AI, Dawson AJ, Begany KL, Leckie RL, Barry KP, Ciccia AH, Snyder AZ (2012) fMRI reveals reciprocal inhibition between social and physical cognitive domains. *Neuroimage* 66C:385-401.

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[31] The research shows that these two modes, corresponding to different 'hardwired' neural systems, can be flexibly deployed and that there are individual differences in our propensity to adopt one cognitive mode or the other. For instance, males who evidence more hostile sexism towards women show less activity in empathetic brain regions when they are shown sexualized images of attractive women (see reference). Similarly, humanizing and dehumanizing narratives influence which mode one adopts when viewing depictions of others (see ref 36). Adopting one mode or the other would not usually be a conscious choice, but it is influenced by culture, personality and training. Reference: Mina Cikara, Jennifer L. Eberhardt, and Susan T. Fiske (2011) From Agents to Objects: Sexist Attitudes and Neural Responses to Sexualized Targets. Journal of Cognitive Neuroscience 2011 23:3, 540-551

[32] http://medicaleconomics.modernmedicine.com/medical-economics/news/why-its-so-difficult-physicians-be-empathetic-and-analytic-same-time

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[35] Eberhard Taubert, writer, and Fritz Hippler, director, "The Eternal Jew," Deutsche Film Gesellschaft, 1940.

[36] Bastian, B., & Haslam, N. (2011). Experiencing Dehumanization: Cognitive and Emotional Effects of Everyday Dehumanization. *Basic and Applied Social Psychology, 33*(4), 295-303.

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[39] Hannah Arendt, *Eichmann in Jerusalem: A Report on the Banality of Evil*, New York: Penguin Books, 1977, p. 116.

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Obeying Orders: Atrocity, Military Discipline, and the Law of War, New Brunswick and London: Transaction Publishers, 1999

[44] General Benoit Royal, *The Ethical Challenges of the Soldier: The French Experience*, Paris: Economica, 2012, pps. 63-64.

[45] http://humanterrainsystem.army.mil/

[46] https://www.culturalknowledge.org/

[47] Jonathan Shay, M.D., Ph.D., *Achilles in Vietnam: Combat Trauma and the Undoing of Character*, New York: Simon and Schuster, 1994, p. p.115.

[48] Shannon E. French, *The Code of the Warrior: Exploring Warrior Values, Past and Present*, New York: Rowman & Littlefield, 2003, p.3.

[49] Ted Van Baard, "The Ethical Challenges of a Complex Security Environment," in David Whetham (Ed.), *Ethics, Law and Military Operations*, Basingstoke: Palgrave MacMillan, 2010, p.166.

[50] Shannon E. French, *The Code of the Warrior: Exploring Warrior Values, Past and Present*, New York: Rowman and Littlefield, 2003.

[51] Nancy Sherman suggests in *Stoic Warriors: The Ancient Philosophy Behind the Military Mind* (Oxford: Oxford University Press, 2005) and elsewhere that troops could practice building empathy with their enemies by "trading places in imagination" (p. 172) and fully embracing their shared humanity.

[52] Shannon E. French, "Sergeant Davis's Stern Charge: The Obligation of Officers to Preserve the Humanity of Their Troops," *Journal of Military Ethics*, David Whetham, guest editor, Volume 8, issue 2, 2009 (pages 116-126).

[53] "UK troops told: Be just and strong," BBC News. 20 March 2003. Archived from the original on June 15, 2009.

[54] For a military perspective see e.g. Lt. Col. Joseph Doty and Maj. Joe Gelineau, "Command Climate," *Army Magazine*, July 2008. For a social psychological perspective see e.g. Philip G. Zimbardo, *The Lucifer Effect: Understanding How Good People Turn Evil*, New York: Random House, 2007.