



Pharmacological Prophylaxes against Moral Injury

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1 Introduction

Colonel Paul Tibbitts, the American pilot who dropped the atomic bomb on Hiroshima, was by most accounts untroubled by what he had done. In the years that followed he even participated in re-enactments of the bombing in front of audiences at model aircraft shows. By contrast the man who flew the reconnaissance plane over Hiroshima immediately before the bombing—Major Claude Eatherly—could hardly live with himself afterwards. He became an outspoken pacifist, donated a portion of his salary to a fund for children in Hiroshima, and would send letters of apology to the victims and their families. He was haunted by nightmares, attempted suicide, and underwent extensive psychiatric treatment (Glover 2012: 100–101). He even committed petty, senseless crimes for no gain, apparently in “a desperate attempt to prove his guilt to himself and to his fellow men, who too easily had classified him as a guiltless, even gilded hero” (Anders and Eatherly 1962, 52).

Although it was not recognised as such during his lifetime, in today’s parlance Eatherly’s condition would be labelled a “moral injury”. This term is now being used to describe the aggravation of the moral emotions—guilt, remorse, shame—to the point of personal dysfunction. The morally injured feel so bad about what they have done, or failed to do, that they struggle to live a minimally decent life. Dawn Weaver, a psychiatric nurse for the US military, described the experience of some veterans thus: “when they come home, they are so horrified by what their primal brain had them do [...] that they find themselves absolutely reviled, repugnant. They can’t tolerate themselves” (Hautzinger and Scandlyn 2016: 66–7). These are the hallmarks of moral injury.

The causes of this condition are varied. A soldier might become morally injured by acts of violence that he perpetrated, or was complicit in. Eatherly falls into this cat-

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egory, as presumably do the veterans mentioned by Weaver, ridden with guilt because of what their “primal brains” had them do. But this is just the tip of the iceberg.

In *Afterwar*, Nancy Sherman (2015) provides a series of vignettes that illustrate the wide range of acts and omissions that have contributed to moral injuries among US military personnel. Some of the injured feel that they should have done more to protect those under their command. Some feel they could have done more to compensate innocent civilians accidentally harmed by their actions. Some regret failing to confront or report the sexual misconduct of their fellow soldiers. One happened to be on leave the day a comrade was killed, and his morally injury stemmed from that alone. Sherman draws on ancient Greek tragedy to highlight how soldiers are often put in situations where, whatever they do, it is transgressive of ordinary interpersonal morality. Nothing they do is unequivocally morally “right”, so it is hardly surprising that many of those who make it out alive are morally tormented.

Tyler Boudreau (2011) is one of few combat veterans to have written about their experiences with moral injury. What is striking about Boudreau’s story is that his moral injury was triggered by a relatively uneventful search of a farmhouse. “Not a shot was fired, not a drop of blood or a tear was shed”, Boudreau writes, “and yet, as we withdrew from that farmhouse and roared off into the night, I felt something inside me begin to hurt.” For however innocuous the encounter was on its surface, Boudreau explains, the relationship between him and this Afghan family was one of *domination*, where the foreigner imposes his will, and the natives submit passively. Indeed, the encounter was without incident *precisely because* of the power asymmetry between the parties and the threat implied by it. This is what played on Boudreau’s conscience more than anything, and he suggests that the moral injuries sustained by many others in Afghanistan and Iraq may have similar roots. If he is right, then what made these wars especially morally injurious was not the fact that they were especially violent; it is that they became prolonged occupations that generated a morally odious relationship between the foreigners and the natives.

What, if anything, can be done to reduce the amount and severity of moral injury suffered by military personnel? There is a growing body of literature considering various after-the-fact interventions: those aimed at healing or “repair”. Sherman discusses the cultivation of beliefs and attitudes that aid emotional restoration and resilience, such as stoicism. She also emphasises the importance of community and social connectedness. The morally injured feel so bad about themselves that their condition has been described as a “self-imposed moral exile” (Lauritzen 2015). These individuals need to feel valued as human beings to allow themselves out of this exile, and community support is indispensable in this regard. Others have suggested spiritual counselling, and recommended giving morally wounded veterans opportunities to apologise, not so much as a way of repairing damaged relationships, but as a way of repairing themselves (Cohen 2018).

This paper has a different focus. Rather than addressing post-war care, healing, or treatments for moral injuries already sustained, I want to consider the possibility of preventative measures; prophylactic “left of bang” interventions to forestall the onset of moral injury in the first place. In particular, I will explore some pharmacological interventions that could potentially insulate soldiers against moral injury or mitigate the distress associated with it. Three possibilities will be considered. First is the

administration of what I will call “numbing agents”: substances such as Propranolol or Adderall that can make certain behaviours less emotionally aversive. Second is the administration of what I will call “bonding agents”: substances such as oxytocin that intensify in-group favouritism. Finally I will consider morality-altering interventions, particularly those that bias individuals towards utilitarian decision-making that privileges some conception of the “greater good” above all other ethical concerns.

After describing how these various interventions might be used to prevent the onset of moral injury in military personnel, I turn to consider some of the dangers that we need to be mindful of before we attempt any such thing. In particular, I warn that pharmacological interventions that might prevent the kind of moral injury described above carry the risk of causing an altogether different kind of moral injury.

2 Numbing, bonding, and utilitarian biasing

Propranolol is commonly used for the treatment of hypertension, and now experimentally used for the treatment of post-traumatic stress disorder. It works by blocking certain stress hormones (adrenaline and noradrenaline), which play a role in producing visceral gut reactions to stimuli (Levy et al. 2014: 3–5). It is easy to see how this might be used for the prevention of moral injury. As described, this condition is characterised by an acute and enduring inflammation of the moral emotions (guilt, shame, remorse) to the point that they become debilitating. Armed forces personnel are especially susceptible to this because they are especially likely to have highly morally distressing encounters in their line of work. If Propranolol can blunt the affective reactions ordinarily triggered by these encounters—if it can emotionally numb soldiers, so that they don’t feel so horrified by the things they see and do in the line of duty—then it can potentially prevent the moral emotions from being aggravated to pathological levels.

Adderall, used primarily for the treatment of attention deficit disorder, could have a similar effect. Studies have revealed that, in addition to improving focus on tasks, Adderall makes people feel better about what they are doing; it increases positive affect, not just concentration. A publication in *The American Journal of Bioethics (Neuroscience)* thus suggests that Adderall has “the potential to turn otherwise unpalatable undertakings into ones that the agent finds agreeable” (Tonkens 2013: 15). Like Propranolol, then, Adderall could help to insulate soldiers against moral injury by weakening their aversive emotional reactions to things that are normally experienced as deeply morally “unpalatable” or “disagreeable”.

These two drugs might be described as numbing agents. Administering them would directly modulate how soldiers *feel* about the things they do and allow to happen, which would offer some protection against the acute guilt and shame that characterises moral injury. Other pharmaceuticals could potentially be used to the same effect, though via a different mechanism.

Oxytocin is a hormone and neurotransmitter produced naturally in the brain’s hypothalamus, but its baseline levels and secretion can be pharmacologically manipulated. Oxytocin can be directly administered, most effectively via a nasal spray, but other drugs can also be used to increase the body’s production and metabolism of

the hormone. The combined oral contraceptive pill, for example, is thought to have some such effect, as are glucocorticoids, widely used to treat asthma and disorders of inflammation. In laboratory settings rats given buspirone, an anti-anxiety medication, also showed increased oxytocin levels (Levy et al. 2014: 8–10).

Oxytocin is colloquially referred to as the “love hormone” for a reason; it has been shown to increase our affection towards others. Rather than a numbing effect, it has what we might call a bonding effect. But there is an important qualification to be made here. Rather than increasing positive affect towards other people or other sentient beings *tout court*, oxytocin seems to strengthen ties *within* salient social groups. Under its influence, an individual will feel greater affection, attachment, and commitment towards “their own”, rather than towards human beings generally (unless of course they idiosyncratically regard the whole of the human race as sharing their group identity). To put it another way, oxytocin increases in-group positivity (De Dreu et al. 2011).

Now typically, though not necessarily, more in-group positivity is correlated with more out-group negativity, and the research on oxytocin bears this out. One study showed that oxytocin increases both in-group favouritism and out-group derogation. Participants in the Netherlands became more positively disposed towards natives, and less accepting of other ethnicities and foreigners, as their oxytocin levels were manipulated upwards. It is worth highlighting that this study used an “infra-humanisation task”, which measures the extent to which participants ascribe uniquely human traits to others. It turns out that oxytocin is correlated with greater such attributions to members of one’s own group as compared to outsiders; it creates asymmetries in *how human* we perceive other people to be. The upshot is that oxytocin increases ethnocentrism, or the tendency to regard one’s own group as better or more important than other groups. Hence the authors of the study warn: “These findings call into question the view of oxytocin as an indiscriminate “love drug” or “cuddle chemical” and suggest that oxytocin has a role in the emergence of intergroup conflict and violence” (De Dreu et al. 2011: 1262).

Another study on oxytocin involved the use of trolley problems, where participants are asked whether they would divert a runaway trolley away from five innocent people who would otherwise be killed, onto an alternate track where it will kill once innocent person instead. The participants administered oxytocin were significantly more likely to divert the trolley, and thus sacrifice the lone individual to save the five, where the lone individual was ascribed a race other than their own, compared to a same race individual (see Levy et al. 2014: 10).

Could oxytocin be used as a prophylactic against moral injury?

Many, probably most of these injuries are sustained by soldiers who either inflict serious harms on, or allow serious harms to befall, members of a foreign society that they are at war against or conducting military operations within. These harms will be inflicted ostensibly for the sake of, or in the name of, the soldiers’ own parent society. A soldier’s job is to kill and maim *them* in order to defend *us* and our interests. The aforementioned studies give us reason to expect that behaviour under this description will tend to be less morally and emotionally troubling to individuals administered oxytocin. Especially where the welfare of the in-group is at stake, oxytocin appears to reduce concern and respect for outgroups. If this would make our soldiers feel gen-

erally less guilty about harming foreign populations, then we can reasonably expect that its administration to armed forces personnel would result in fewer and less severe instances of moral injury.

Finally, I want to consider what we might refer to as “morality-altering” pharmacological interventions. To be sure, “numbing” and “bonding” agents also have effects on our moral psychology, but I mean something more specific by morality-altering here. I mean interventions that can influence the style of moral reasoning and decision-making that an individual is disposed towards. Even more specifically, I want to consider interventions that produce a so-called “utilitarian bias”; interventions that amplify the salience of the “greater good” in the moral deliberations of the individual. Let me begin by explaining how this could help prevent moral injuries among armed forces personnel.

When our behaviour falls short of our internalised moral standards, there are psycho-social strategies that we commonly use to sooth the pangs of conscience. One of these strategies has already been alluded to: if our conduct has an identifiable victim, we might de-humanise or sub-humanise them, or even attribute blame to those victimised. The result is that the injured party becomes, in our minds, more deserving of what they have suffered. We also dodge moral self-sanction through euphemistic labelling and the sanitisation of language. In the labour market separating workers from their livelihoods is “downsizing” or “restructuring”. In the nuclear power industry an explosion is an “energetic disassembly”. In the military dead civilians are “collateral damage”. We also engage in advantageous moral comparison to avoid self-censure. However abhorrent my own behaviour, if I can point to others whose conduct is even worse, then I am bound to feel better about myself (Bandura 2002).

The psychological defence mechanism that I will focus on for present purposes, however, is the one captured by the quip “you can’t make an omelette without breaking eggs”. This involves invoking some conception of the “greater good” and justifying one’s conduct—if only to oneself—as a necessary means to that end. Behaviour that would normally be objectionable becomes acceptable in the circumstances by being tied to some morally worthy higher purpose. The *meaning* of the behaviour is altered by being woven into a broader narrative about the greater good. This can allow the individual to inflict serious harm on others, even deliberately and repeatedly, without compromising their own sense of moral decency.

Armed forces personnel are already conditioned to believe that their actions are geared towards a greater good—the survival of the political community and the welfare of its citizens, human rights abroad, international stability, and so on. But many of them sustain moral injuries regardless. Part of the explanation for this, presumably, is that many soldiers have not internalised a consequentialist ethic. They may sincerely believe that what they are doing is for the greater good, but unless they *also* sincerely believe that the greater good is always morally decisive, such that nothing can possibly be wrong if its net effect is positive, they are still liable to be overcome by guilt and remorse. This brings us to our third possible prophylaxis against moral injury: testosterone boosters.

Studies suggest that people with high levels of testosterone are more likely to resolve moral dilemmas in a utilitarian manner, whereby considerations of aggregate utility trump everything. Trolley problems again feature in the experimentation. In

the original trolley problem, you have the option of diverting a runaway trolley away from a track on which it will kill five people, onto an alternate track on which it will kill one person. In a modified version, you have the option of pushing a single individual onto the tracks in front of the trolley to prevent it from continuing on and killing five others. Intuitively most people feel that it is permissible to divert the trolley in the original scenario but not to push the bystander onto the tracks in the modified version. Respondents high in testosterone are an exception, however. They are more likely than others to be “intransigent utilitarians”: to judge that *both* acts are equally permissible (Carney and Mason 2010; Arnocky et al. 2017).

If this is right, then testosterone boosters could potentially provide some protection against moral injury. We can assume that most individuals serving in the armed forces believe that the institution serves a greater good, to which their individual actions contribute. Nevertheless, some of these individuals will become guilt-ridden in the course of their service because they have not internalised a utilitarian normative frame: they do not *intuit* that the ends always justify the means. If testosterone can cultivate that intuition, then it could potentially result in military personnel feeling less guilty about their acts and omissions in the course of their service, as long as they are convinced that everything they do is geared towards a greater good.

All I have said so far is that we *could* intervene pharmacologically to protect soldiers against moral injury. But of course that does not mean we *should*. In the second half of the paper I highlight some of the moral risks that these interventions carry. In particular, I hope to demonstrate the following dilemma: interventions that prevent moral injury as described at the beginning of this paper may simultaneously increase an individual’s vulnerability to moral injury of a different kind. Indeed, interventions that prevent the former may actually *inflict* the latter.

3 The moral injury dilemma

Propranolol and Adderall might be used as “numbing” agents, oxytocin might be used as a “bonding” agent, and testosterone might be used as a “morality-altering” agent. Numbing agents make violence less emotionally aversive; bonding agents make it psychologically easier to inflict harm on outsiders when it is perceived as serving the interests of insiders; and morality-altering agents foster a utilitarian orientation that embraces ordinarily transgressive acts as fully justified wherever they are seen to promote the greater good. All three could potentially serve as prophylaxes against moral injury.

Whatever their potential benefits, however, all three of these interventions are also seriously morally risky. A utilitarian bias might reduce the anguish and self-blame that our soldiers experience when they kill enemy combatants in pursuit of the mission, but by the same token it will probably make civilian victimisation less distressing to them as well. It is naïve to imagine that soldiers will invoke the “greater good” to justify to themselves legitimate military violence but not illicit violence that is aimed at the same objective. Similarly, if oxytocin would make it emotionally and morally easier for our soldiers to kill *them* in defence of *us* and our interests, I see no reason to expect that the relevant “they” will be limited to legitimate military targets,

rather than the out-group as a whole. If these concerns are well founded then pharmacological prophylaxes against moral injury may turn out to be good for our soldiers, but bad for just about everyone else.

One might interject that there is an easy fix: military personnel simply need to be educated to appreciate that war-crimes and other illicit activities are deeply counter-productive—that they do not, in fact, promote the greater good of the parent society. The problem with this response is that it assumes that the average national soldier regards their nation or parent society to be the relevant in-group.

Wherever there is a professional standing army, the military and the civilian worlds will tend to drift apart and develop distinct and sometimes conflicting sets of values and attitudes. Journalist Arthur Hadley (1986) once called this phenomenon “The Great Divorce”. Sociologists today usually call it the “civil-military gap” (Clemmensen et al. 2012). It tends to be especially pronounced in liberal democratic societies since, as Richard Kohn observes, “the military is among the least democratic institutions in human experience; martial customs and procedures clash by nature with individual freedom and liberty” (Baker 2015: 45). This gap tends to give rise what I have elsewhere called “warrior-class consciousness” (Dobos 2020: 51–4), whereby professional soldiers come to think of themselves as a distinct caste within society.

To some extent this happens organically, but military establishments also actively cultivate in their members a sense of a distinct identity from the very beginning. “People joining the military embrace the full power of its heritage during basic training when they experience carefully designed rituals of entry into the military family [...] Basic training is designed as a transitional period *when ethnicity is infused* and the basic principles of military life are begun” (emphasis added, Munson and Daley 1999: 292). The reference to “infusing ethnicity” here is not meant to convey that militaries use basic training to strengthen the nationalistic or ethnocentric commitments of recruits to flag and country. Rather, the claim is that military identity has all the properties of an ethnicity in its own right—a shared history, cultural dress, language conventions—and the military uses socialisation and conditioning to get recruits to embrace this identity as their own. This is why some scholars have gone so far as to suggest that the military *is* an ethnic group unto itself, though not the kind we are familiar with (Munson and Daley 1999).

Over time, the feeling of being separate can mutate into feelings of alienation, contempt, and even hostility toward the civilian “other”. Thomas Ricks found evidence of this amongst US Marines in the 1990s; at the time he described it as their “private loathing for public America”. Retired US Admiral Stanley Arthur has suggested that the Marines are hardly alone here: “more and more, enlisted [men and women] as well as officers are beginning to feel that they are special, better than the society they serve” (Ricks 1997). Carl Forsling (2019) recently coined the term “veteran superiority complex” to describe this phenomenon. Hew Strachan (2003) finds much the same among the British armed forces. Its members are said to see civilians “as mentally soft and physically feeble, and as expecting the armed forces to incorporate personnel policies wholly inappropriate to fighting formations”. Naturally, this expectation breeds resentment. Not only are civilians seen as having detestable val-

ues; they are accused of interfering with the military and endangering its members by trying to impose those values on the armed forces.

Warrior class consciousness helps to explain the countless historical examples of military personnel preying on the very civilians that they were supposed to protect. These civilians might not represent a racial or national “out-group”, but in the minds of soldiers they can become a kind of cultural and ideological out-group. This being the case, we need to be wary of the idea that soldiers with elevated oxytocin levels will refrain from war crimes and other transgressive acts as long as they are educated to appreciate that this does not, in fact, serve the interests of the political community back home. This will not help if warrior-class conscious soldiers see the military itself, rather than the civilian society it serves, as their salient social group.

But the problem runs much deeper than this. All I have said so far is that administering pharmacological prophylaxes to soldiers might make them better off at the expense of others, such as enemy civilians or their own civilian population. But arguably even this concedes too much. What I want to show in what remains is that, while there are certainly *respects in which* these pharmacological interventions would benefit our military personnel, there are also respects in which these drugs would damage them. In fact, I hope to show that the same pharmaceuticals that could protect our soldiers against one kind of moral injury are prone to increase their vulnerability to moral injury of a different kind. Call this the *moral injury dilemma*.

To see this, we need to appreciate that there are two very different conditions, both of which can be and have been referred to as “moral injury” (Dobos 2020: 22–27; Dobos 2015). The first kind is what has already been described: feelings of guilt, shame, and remorse so intense and protracted that the individual becomes dysfunctional. Claude Eatherly is our paradigm example. Compare him to another veteran that has been described as morally injured: Stephen Canty, a US Marine who provides the following account of what happened after he shot an Afghan man in the back on his second deployment (quoted in Wood 2014):

One of the bullets bounced off his spinal cord and came out his eyeball, and he’s lying there in a wheelbarrow clinging to the last seconds of his life, and he’s looking up at me with one of his eyes and just pulp in the other... I just stared down at him ... and walked away. And I will ... never feel anything about that. I literally just don’t care whatsoever... I think I even smiled.

Canty continues:

You learn to kill, and you kill people, and it’s like, I don’t care. I’ve seen people get shot, I’ve seen little kids get shot. You see a kid and his father sitting together and he gets shot and I give a zero fuck.

Canty and others from his company appear prominently in *What Have We Done: The Moral Injury of Our Longest Wars*, written by the Pulitzer Prize winning journalist David Wood (2016). But clearly the moral injury experienced by Canty is very different from that suffered by Eatherly.

Eatherly's kind of moral injury involves an arousal of the moral emotions to such an extent that they become debilitating. The soldier feels so bad about his actions or omissions that he struggles to function or to live a flourishing life upon his return from operations. Where the experience of war aggravates the moral emotions in this way, let us call it "moral trauma".

This is not Canty's kind of moral injury though. He is not "traumatized" at all. On the contrary, he is not at all emotionally troubled by what he did and witnessed in Afghanistan. *But we cannot help but feel that he should be*. Canty saw some truly terrible things, but he no longer experiences them *as* terrible; he has become emotionally and morally indifferent to things that any morally healthy person would find deeply distressing. *That* is his injury—the corrosion of his moral emotion to such an extent that he feels *nothing* when he inflicts and witnesses extreme violence. Let us call this kind of moral injury "moral degradation". To be entirely devoid of moral sentiments such as guilt is to be "morally dead", according to Kant (Murphy 1972). Moral degradation can be understood as the kind of injury that edges one closer to this condition.

Moral degradation approximates most definitions of "moral injury" more closely than moral trauma does. Wood (2014) defines moral injury as "damage to a person's moral foundation". Tyler Boudreau (2011: 749) similarly talks of "damage done to our moral fiber". Neilsen et al. (2016: 35) define it as a condition that "reduces the functioning or impairs the performance of the moral self." Stephen Canty meets this definition. His moral compass has become unresponsive. But we cannot say the same for Eatherly. Guilty feelings, however acute and debilitating, do not indicate that one's moral foundation has been compromised. On the contrary, they can serve as evidence that one's moral senses are still very much active. A letter of consolation written to Eatherly makes this point especially well. He had expressed frustration and hopelessness at the impossibility of atoning for his involvement in the Hiroshima atrocity. In response, Gunther Anders wrote this: "That you, since your efforts cannot succeed, react panically and unco-ordinatedly, is comprehensible. One could almost say that it is proof of your moral health. For your reactions prove that your conscience is on guard" (Anders and Eatherly 1962: 4).

We can set this aside for present purposes, however, and just say that there are (at least) two distinct variants of moral injury: moral trauma and moral degradation. Armed with this distinction, let us now return to our proposed prophylaxes. The *moral injury dilemma* is clearest in relation to numbing agents, and so I will concentrate on those to make my point, but everything that follows can be extrapolated to some extent to the other kinds of pharmacological interventions discussed above.

Soldiers are sometimes called "specialists in violence"; killing and maiming people when the government says so is part of their job description. Most ordinary people would find this activity deeply emotionally aversive (Grossman 1995), but we have seen that Propranolol and Adderall can make them less so. These substances can make a person more comfortable with killing and maiming people; they can take the emotional and moral sting out of violence and, with this, reduce the likelihood of moral trauma. But is this indifference to violence not precisely the condition that we have just labelled "moral degradation"? Numbing agents can make a person who inflicts serious harms on others feel less troubled by it, *but a morally healthy*

person would be troubled by it. This complicates the picture considerably. It looks like, rather than acting as a prophylaxis against moral injury, numbing agents instead trade-off one kind of moral injury for the other. Vulnerability to moral trauma is reduced by causing moral degradation. The soldier is less likely to become a Calude Eatherly, but more likely to become a Stephen Canty.

Seen in this light it is easier to understand some of the negative reactions to the proposed use of Propranolol for the treatment of PTSD among veterans. Former Chairman of the President's Council on Bioethics, Leon Kass, memorably described Propranolol as "the morning-after pill for just about anything that produces regret, remorse, pain, or guilt". Barry Romo, a national coordinator for Vietnam Veterans Against the War, called it the "devil pill", the "monster pill", and the "anti-morality pill" (all quoted in Baard 2003). This is hyperbole, but underneath it is a genuine concern. If Propranolol means that a soldier can kill and recall killing without experiencing any emotional anguish, has her moral health not therefore been compromised? (Henry et al. 2007). Penny Coleman thinks so. She describes the proposed administration of Propranolol to soldiers as "a form of moral lobotomy" that "medicates away one's conscience". Coleman is worth quoting at length before we conclude:

I cannot imagine what aspects of selfhood will have to be excised or paralyzed so soldiers will no longer be troubled by what they, not to mention we, would otherwise consider morally repugnant. A soldier who has lost an arm can be welcomed home because he or she still shares fundamental societal values. But the soldier who sees her friend emulsified by a bomb, or who is ordered to run over children in the road rather than slow down the convoy, or who realizes too late that the woman was carrying a baby, not a bomb—if that soldier's ability to feel terror and horror has been amputated, if he or she can no longer be appalled or haunted, something far more precious has been lost. I am afraid that the training or conditioning or drug that will be developed to protect soldiers from such injuries will leave an indifference to violence that will make them unrecognizable to themselves and to those who love them (Coleman 2008).

4 Conclusion

Whether numbing, bonding, and utilitarian-biasing agents would, in fact, provide soldiers any protection against traumatic moral injury has not yet been established; the first half of this paper is admittedly speculative in that regard. Even if these prophylaxes turn out to be safe and effective, however, it remains an open question as to whether they ought, morally, to be administered to armed forces personnel. We need to consider the implications for other people, most obviously the various civilian populations that these morally modified soldiers would have ongoing interactions with. But that is not all. We also need to think more carefully about whether these prophylaxes—even if they work exactly as intended with no side effects—are unequivocally *good for* the military personnel themselves. I have argued that they are not. Rather than mitigating moral injury *tout court*, they promise to reduce one kind

of moral injury by increasing the risk of or even inflicting another. I do not mean to suggest that that this counts decisively against any administration of these prophylaxes to soldiers. But it should make us wary of any generalized assumption that it is always in their best interests to have access to these drugs so long as they are safe and effective. More empirical evidence and ethical analysis is needed even to get us to this modest starting point.

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