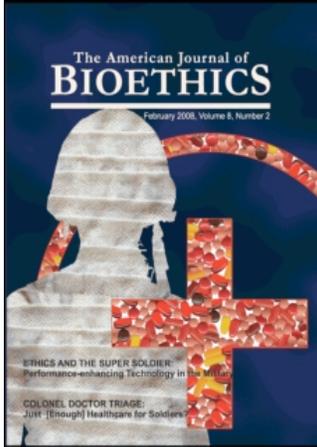


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Performance-Enhancing Technologies and Moral Responsibility in the Military

Jessica Wolfendale^a

^a Centre for Applied Philosophy and Public Ethics, University of Melbourne,

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Target Article

Performance-Enhancing Technologies and Moral Responsibility in the Military

**Jessica Wolfendale, Centre for Applied Philosophy and Public Ethics,
University of Melbourne**

New scientific advances have created previously unheard of possibilities for enhancing combatants' performance. Future war fighters may be smarter, stronger, and braver than ever before. If these technologies are safe, is there any reason to reject their use? In this article, I argue that the use of enhancements is constrained by the importance of maintaining the moral responsibility of military personnel. This is crucial for two reasons: the military's ethical commitments require military personnel to be morally responsible agents, and moral responsibility is necessary for integrity and the moral emotions of guilt and remorse, both of which are important for moral growth and psychological well-being. Enhancements that undermined combatants' moral responsibility would therefore undermine the military's moral standing and would harm combatants' well-being. A genuine commitment to maintaining the military's ethical standards and the well-being of combatants therefore requires a careful analysis of performance-enhancing technologies before they are implemented.

Keywords: enhancement, integrity, military bioethics, military ethics, moral emotions, moral responsibility

The military has a vested interest in technologies that could enhance the performance of military personnel and increase their survivability in new and challenging combat environments. Military research organizations in America and Australia are actively pursuing research programs into performance-enhancing technologies (Egudo 2004; Moreno 2006) and advances in biotechnology, nanotechnology, pharmacology, and neuroscience have created previously unheard of possibilities for enhancing combatants' mental and physical performance. In the not-too distant future, it may be possible to use brain implants to enhance combatants' cognitive capacities, gene markers to distinguish friend from foe, pharmacologic treatments to minimize the experience of fear (Moreno 2006, 128; Baard 2003), and genetically-modified food to fight fatigue and increase alertness (Egudo 2004, 14). What are we to make of these technologies? Assuming that they are safe, is there any reason to reject their use?

In this article I argue that we have reason to be extremely cautious about the use of performance-enhancing technologies such as those just described. The use of enhancements in the military raises ethical issues that have been largely unexplored in the literature on the ethics of enhancement, which has proceeded on the assumption that those individuals using enhancements will be voluntarily choosing to do so. The debate has therefore largely focused on questions such as the impact of enhancements on distributive justice and social equality (Buchanan et al. 2000), the impact of enhancement on human nature (Fukuyama 2002, President's Council on Bioethics 2003; Habermas 2003; Naam 2005), and

the ethical issues raised by germ-line genetic enhancements (Glover 1984; Glannon 2001). However, many of these issues do not straightforwardly apply to the use of enhancements in the military. Military personnel are unlikely to be able to freely choose to take or refuse to take enhancements; the issue of distributive justice does not straightforwardly apply to the military institution, which (unlike liberal democracies) is not committed to a principle of social equality; and the issues raised by genetic germ-line enhancements are not relevant to the military because these kind of enhancements are not being researched for military use. Finally, and perhaps most importantly, it is possible that the importance of military effectiveness could outweigh considerations that might argue against the use of enhancements in the general population. For these reasons, it is crucial that the unique ethical issues raised by the military use of enhancements be given careful analysis.

In this article I consider one area of particular importance: the relationship between enhancement technologies and the moral responsibility of military personnel. I focus on the following questions: would the enhanced war fighter be morally responsible for his actions in combat? If not, would this loss of responsibility be problematic, and how should these concerns be balanced against the need for effective military forces?

I argue that performance-enhancing technologies that undermined moral responsibility would be morally impermissible for two reasons. First, military personnel must be morally responsible agents in order to fulfill the military's ethical commitments and the requirements of military

Address correspondence to Jessica Wolfendale, Australian Research Council Postdoctoral Research Fellow, Centre for Applied Philosophy and Public Ethics, Department of Philosophy, University of Melbourne, VIC 3010, Australia. E-mail: jwo@unimelb.edu.au

justice — the ideal of the good war fighter involves not only technical skills but also moral virtues. Technologies that undermined combatants' moral responsibility would thereby undermine the military's claim to be a morally justified profession committed to the laws of war.

Second, moral responsibility is necessary for the maintenance of personal integrity and the experience of the moral emotions of guilt and remorse. Integrity—the experience of a consistent and unified personal narrative—relies upon the recognition that one's actions arise from one's own agency. Such recognition is also essential for the experience of remorse and guilt. Performance-enhancing technologies that compromised the moral responsibility of military personnel would therefore undermine their integrity and the likelihood that they would experience guilt and remorse about their actions in combat. This could harm their reintegration into civilian society as well as their ability to reflect upon, understand, and learn from the moral consequences of their actions in combat. Because military actions involve the killing and harming of both enemy combatants and civilians, it is crucial to maintain combatants' awareness of the moral implications of their participation in combat.

PERFORMANCE-ENHANCING TECHNOLOGIES AND MORAL RESPONSIBILITY

A full account of moral responsibility is beyond the scope of this article,¹ but we may derive a basic criterion for moral responsibility from the many available accounts. There is, for example, general consensus that morally responsible agents must possess certain capacities (even when they do not exercise those capacities as perhaps they should). At the very least, they must possess the capacity to critically reflect on the options available to them, and the capacity to act upon their choices and control their behavior.² As R. Jay Wallace explains, one is a morally responsible agent when one can “regulate one's behaviour in light of the moral reasons one

grasps” (1994, 158). Karen Jones summarizes the capacities necessary for responsibility as follows:

an agent requires critical reflective ability, dispositions to bring that ability to bear when needed, and dispositions to have the results of such reflection bear on their behaviour (Jones 2003, 190).

Responsible moral agents are therefore those agents who are capable of understanding and acting on reasons and controlling their behavior. In what ways would the use of performance-enhancing technologies undermine moral responsibility?

The most obvious way in which performance-enhancing technologies could undermine moral responsibility would be to influence combatants' behavior to such an extent that their behavior was no longer the result of their rational choice or under their rational control. For example, drugs that inhibited fear and other strong negative emotions might result in combatants who behaved rashly and whose sensitivity to threats and to negative features of their environment was compromised (Moreno 2006, 130–131).

Yet this seems too quick. Why would the mere *alteration* of an agent's emotional or cognitive states be sufficient to undermine their moral responsibility? Many everyday substances such as caffeine and nicotine affect emotional and cognitive states, yet we do not think that agents who drink coffee or smoke are no longer fully responsible for their actions while under the influence of these substances. In order to undermine moral responsibility, a substance must do more than simply alter agents' emotional and cognitive states; it must undermine the capacities that agents require for morally responsible action.

Under the conception of moral responsibility offered previously, responsibility can be undermined in a variety of ways and to varying degrees. However, we must be careful to distinguish conditions that *excuse* an agent from being held responsible for her actions, from those that *undermine* her capacity to act as a responsible moral agent.

Conditions that might excuse an agent from moral responsibility for her actions would include cases in which an agent is coerced or threatened by others to perform an action that she does not wish to perform. In such cases the agent still fulfils the criteria of a morally responsible agent but we withdraw our attributions of responsibility not because her rational capacities are undermined, but because she is presented with seemingly overwhelming reasons for doing as the coercer wishes. In fact, successful coercion requires that the agent's deliberative capacities be intact. As David Sussman explains, “Coercion requires only that its victim have the capacities needed for practical reasoning and intentional action” (2005, 9). Ignorance of relevant facts could also act as an excusing condition in some circumstances. For example, a person who gave peanut butter to a child who was fatally allergic to peanut butter could not reasonably be blamed for the death of the child if she could not have known about

1. For an agent to be morally responsible in the sense of responsibility that I will use in this article is for the agent to have the basic capacities and abilities in order to be an appropriate subject for judgments of responsibility. This sense of *responsibility* is therefore distinct from other common uses of the word, where we might refer to someone having responsibility *for* a person or persons, being responsible *to* another person, and bearing legal responsibility. These uses of *responsibility* would have different conditions than the definition of *responsibility* to which I am appealing. In relation to theories of moral responsibility, some philosophical positions, such as hard determinism, hold that no one can be held morally responsible for their actions. This issue is beyond the scope of this article. In this article I assume, for the purposes of argument, that people may be held morally responsible for at least some of their actions.

2. This does not necessarily entail that they must have been able to have acted otherwise. According to Harry Frankfurt (2003, 322–336), what matters to responsibility is not whether the agent could have acted otherwise, but whether she was acting in accordance with her second-order desires, the desires that she desired to act on.

the allergy.³ However such excusing conditions do not alter the agent's status as a morally responsible agent. Instead, as Wallace argues, excuses:

operate locally: they give a reason to withdraw the attitudes we would normally take in response to a particular *action*, but they do not give us a reason to view the *agent* as anything other than an ordinary, accountable person in general (Wallace 1994, 155).

So, features of a situation that excuse an agent from being blamed for an act are not features that undermine her *capacity* for morally responsible action. Instead, they give us reason to believe that she should not be held responsible (or blamed) for a particular action.

In contrast, an agent's moral responsibility is *undermined* if, for example, her ability to make rational choices and/or her ability to act on her choices are so seriously compromised that she cannot understand reasons and/or regulate her behavior. Wallace's (1994) distinction between two kinds of exemptions from responsibility is useful at this point. An individual may be exempt from attributions of responsibility if she is temporarily unable to comprehend or act on reasons at a particular time, or she may be exempt because she is not, in general, a "morally accountable agent" (Wallace 1994, 156), for example, if she is a very young child. Examples of the first kind of exemptions could include cases of addiction, mental illness, hypnosis, and extreme stress (Wallace 1994, 155). When in the grip of an addiction, for example, an addict may retain her judgments about what she values and about the reasons she has for pursuing certain courses of action, but will simply be unable to control her behavior (Kennett 2001, 155–159). Depending on our assessment of the agent's capacities and level of control, an agent who is ill or under the influence of drugs may be held fully responsible, partially responsible or not responsible for her actions.⁴

Given this account of the capacities necessary for moral responsibility, drugs that significantly altered an agent's ability to interpret and understand information relevant or necessary to rational decision-making could undermine her moral responsibility—the use of such drugs would result in local exemptions of the first kind referred to previously. To see how this might occur, consider one drug currently under investigation. Propranolol is a beta-blocker that shows promise in preventing the formation of the traumatic memories characteristic of post-traumatic stress disorder (PTSD) (Moreno 2006, 130; Pitman et al. 2002). There are obvious military applications for propranolol, given the effect of

trauma on combat effectiveness and post-combat recovery, and the huge financial cost of PTSD, and other combat-related psychiatric disorders. However, research into propranolol has found that subjects who took propranolol prior to witnessing an emotionally arousing story remembered the details of the story but had "flat emotional responses" when asked to recall the story at a later time (Moreno 2006, 130). In another study, subjects taking propranolol had reduced awareness of negative input in a situation, which altered their risk-assessment and decision-making procedures in a gambling task (Rogers et al. 2004).

Such an effect threatens moral responsibility because there is growing evidence that our emotional responses to the situations we are in play an important role in bringing the morally salient features of situations to our attention and in aiding our decision-making and risk-assessment processes (Bechara et al. 2003; Damasio 1996). Drugs that significantly modified our emotional assessment of situations would thereby reduce our awareness of information relevant not only to moral decision-making but to practical risk-assessment. Propranolol, it seems, modifies subjects' capacity to respond to and assess information relevant to rational decision-making, and as a result it would arguably affect the degree of moral responsibility we could assign to them. Whether and to what extent other proposed performance-enhancing technologies would affect combatants' capacities for rational decision-making and action is a question that requires further empirical research,⁵ but it is at least possible that some forms of performance-enhancing technologies (particularly those that aim at cognitive enhancement or at reducing emotions such as fear) could have similar side-effects. The Defense Advanced Projects Research Agency (DARPA), for example, is funding research into brain-machine interfaces (Moreno 2006, 39–40), the use of electric stimulation to the brain to enhance cognitive functioning (Moreno 2006, 126) and the use of "novel pharmaceuticals that enhance neural transmission" (DARPA 2007). Just as we withhold attributions of responsibility from agents whose rational judgment is significantly impaired by medications such as tranquilizers, so we might have to withhold attributions of responsibility from military personnel whose capacities for rational agency are significantly altered by pharmaceutical enhancements and other forms of invasive enhancements.

Indeed, there are performance-enhancing drugs that have been used in the military for many years that arguably undermine combatants' capacities for moral decision-making. Amphetamines have been used in the military since World War II to aid military personnel in combating fatigue and the effects of sleep-deprivation, but their use has come under scrutiny in recent years due to claims that amphetamine use might have been linked to friendly fire incidents in the 2002 war in Afghanistan (Bower 2003,

3. She is, however, responsible for the death, in the sense of being causally responsible for bringing it about that the child dies.

4. An important difference between excusing an agent and exempting an agent for responsibility for a wrong act is that an excuse tells us that the agent did not in fact do anything wrong (because she was coerced, or was ignorant, or for some other reason), whereas an exemption tells us that a wrong act occurred but that the agent is not a fit subject for attributions of responsibility (Wallace 1994, 118).

5. Given the importance of moral responsibility, it is vital that the impact of these technologies on decision-making and moral judgment is assessed during the initial research phases. Once these technologies are implemented, it will be too late.

19).⁶ An even older performance-enhancing drug is alcohol, which was for many years a widely accepted (if largely unofficial) method of increasing the courage of military personnel before going into combat, and alleviating the potential trauma of combat afterwards. The phrase “Dutch courage” for example, came from the frequent use of gin by Dutch military personnel both before and after combat (Jones 1995, 125). Given the well-known effects of alcohol on decision-making, risk assessment, and cognitive functioning, the moral responsibility of military personnel who were fighting while under the influence of alcohol is doubtful.

However, perhaps we can escape these concerns by pointing out that military personnel choose to take these drugs, and so they are responsible for the consequences of taking them, consequences that might well include a diminished capacity for rational decision-making. In other situations in which an agent’s ability to act on her rational choices is compromised by the voluntary use of alcohol or drugs, we do not withdraw attributions of responsibility. Instead, we are inclined to say that she is responsible for the foreseeable side-effects of taking alcohol or drugs, one of which is the diminished control over her actions.⁷

However, there are two problems with this objection. First, the military is a coercive institution that encourages conformity, loyalty, and obedience. Even if it were the case that military personnel were given the choice whether or not to take performance-enhancing substances, pressure from the military chain of command and the threat of demotion or dismissal for refusal would raise doubts as to whether the decision to take performance-enhancing technologies could genuinely be considered voluntary. What is far more likely is that military personnel would be required to take performance-enhancing drugs, if they were approved for use in the military, particularly because military personnel are already required under military law to accept any medical interventions deemed necessary for the maintenance of combat fitness (Moreno 2006, 134). Even in cases of experimental or investigational drugs that have not received final approval from organizations such as the United States (US) Food and Drug Administration (FDA), the military has a track record of waiving standard informed consent requirements if doing so is deemed necessary for combat fitness. This occurred during the First Gulf War when the FDA permitted the US military to waive the normal informed consent requirements and to give troops the bio-defense drugs pyridostigmine bromide and botulinum toxoid while these drugs were still officially classed as “investigational new drugs” (Milner 1996, 202; Moreno 2006, 134). Taking

these drugs was mandatory for all troops going to Iraq. Of course performance-enhancing drugs are different from bio-defense drugs (and may or may not be classed as investigational or experimental when and if they are used), but the previous conditions under which new drugs have been used in the military gives us reason to think that, if their use was authorized by military authorities, there would be little reason to suppose that individual military personnel would have genuine freedom to refuse to take them.

Given the context in which performance-enhancing drugs are likely to be given to military personnel, we cannot plausibly hold military personnel responsible for the decision to take such drugs *and* the foreseeable side effects of taking the drugs. If these drugs significantly altered combatants’ capacity to act on their rational choices or their capacity to reflect on their options, we could not hold them fully responsible for their actions. Furthermore, even if we were able to hold military personnel responsible for the foreseeable consequences of taking performance-enhancing substances, the degree of responsibility we could legitimately assign them would still be less than if they were fully rational. A drunk driver who kills a pedestrian is responsible for the pedestrian’s death, but the driver’s penalty will be less than if he had deliberately run the pedestrian down because it is generally understood that alcohol impairs judgment and risk-assessment. In the military context, our assessment of the moral responsibility of military personnel who, for example, committed war crimes under the influences of strong amphetamines would be similarly affected. We would not hold them to the same degree of responsibility as we would a person who was fully rational at the time of the act. This “waters down” the degree to which we can hold military personnel responsible to an unacceptable degree.

Of course, the fact that some kinds of performance-enhancing technologies could undermine moral responsibility is not to imply that using these technologies would necessarily result in unpredictable, dangerous, or unethical behavior. A soldier who was brainwashed may appear perfectly efficient. Indeed, she may perform her duties with admirable composure. However, she would not be morally responsible for her actions. Similarly, a soldier whose emotional responses to combat were radically altered by the use of performance-enhancing drugs might behave in an entirely appropriate manner, but since her behavior was in an important way not the result of her rational choices, we similarly could not hold her fully responsible for her actions.

But is the loss of moral responsibility problematic? If performance-enhancing technologies increased combatants’ effectiveness (by reducing the effects of fear and fatigue, for example) and thereby increased their survivability and even their ability to deal with the stress of combat, then maybe the advantages gained from these drugs would outweigh the loss of moral responsibility. There could be other ways of ensuring responsibility. The chain of command, for example, could explicitly accept responsibility for the actions of those subordinates who took performance-enhancing drugs that significantly affected their cognitive capacities. If performance-enhancing technologies were

6. Two United States Air Force pilots charged with causing the deaths of Canadian troops in a friendly fire incident in 2002 argued that the use of amphetamines contributed to their mistake (Bower 2003, 19).

7. This would also hold in cases in which an agent on medication for mental illness voluntarily stops taking the medication, with full knowledge that the return of the symptoms of illness will undermine the agent’s responsibility.

able to produce military personnel who were not only extremely efficient but were in fact *less* likely to commit war crimes and more likely to survive without significant psychological trauma, then perhaps not being able to hold them morally responsible seems like a small price to pay. What is so important about maintaining the moral responsibility of military personnel?

MORAL RESPONSIBILITY IN THE MILITARY AND THE IDEAL OF THE GOOD FIGHTER

Even raising the question of the moral responsibility of military personnel may seem puzzling to some. After all, many would argue that military personnel already have limited responsibility for their actions in combat because they are part of an authoritarian institution in which responsibility is borne by those in the upper ranks of the chain of command.⁸ It is important at this point to distinguish between moral and legal responsibility. Military personnel may be morally responsible for their actions in combat if they fulfill the requirements for moral responsibility set out in the first section of this article—i.e., if they are capable of understanding and acting on reasons. However, in cases in which military personnel commit acts that violate the laws of war, there are reasons for restricting their legal responsibility to those cases where the illegality of the order can be clearly established. Difficulties establishing the depth of an individual combatant's understanding of the laws of war, and difficulties establishing whether an ambiguous order is in fact illegal under the given circumstances might all argue against assigning criminal responsibility in cases in which the illegality of an order is not immediately obvious.⁹

In cases in which an order is clearly illegal, however, the "just following orders" excuse is no longer considered a legitimate defense.¹⁰ For example, the US Department of the Army's Field Manual (FM) 27-10, *The Law of Land Warfare*,

8. In traditional just war theory, it was believed that military personnel were only responsible for their conduct within war; not for the justness of the cause for which they fought. However, recently this view (known as the *doctrine of the moral equality of soldiers* (see Walzer 2000) has come under significant criticism, which is beyond the scope of this article (see McMahan 2004), but even if one questions the justification for the moral equality of soldiers, it is generally agreed that, at the very least, military personnel are morally and legally responsible for their conduct within war.

9. I have argued elsewhere that this characterization of military obedience is too lenient on military personnel and is not consistent with the importance of the laws of war to which military forces are committed. The military's moral commitments actually support a far more stringent standard of legal responsibility for war crimes, one that would require military personnel to exercise more deliberation in carrying out their orders (see Wolfendale 2007).

10. It is accepted in a certain limited number of situations. In the Australian Defence Force Discipline Act 1982 for example, "... the 'defence of superior orders' is available where: 1. the act or omission was in execution of the law; or 2. was in obedience to a) a lawful order; or b) an unlawful order that the person did not know, and could not reasonably be expected to have known, was unlawful" (Wheate and Nial 2003, 20).

states that if a soldier is being court-martialed for a war crime:

an order of a superior officer, whether military or civil, does not deprive the act in question of its character of a war crime, nor does it constitute a defense in the trial of an accused individual (Axinn 1989, 2).

All military personnel are expected to adopt a position of *prima facie* obedience, but they are only "bound to obey only lawful orders" (Axinn 1989, 3). Disobedience of orders is a punishable offence in most military forces, but this usually only holds if the order was legal (Keijzer 1978, 153). Orders that are blatantly or manifestly illegal should not be obeyed (Osiel 2002, 46). The concept of manifest illegality is usually defined by appeal to ordinary or widely held moral standards. For example, during the post-World War II trial of Adolf Eichmann, the court stated that:

The distinguishing mark of a "manifestly unlawful order" should fly like a black flag above the order given, as a warning saying "Prohibited" the clearly criminal nature of the acts ordered to be done, unlawfulness piercing the eye and revolting the heart that is the measure of "manifest unlawfulness" required to release a soldier from the duty of obedience upon him and make him criminally responsible for his acts (Osiel 2002, 77).

Other formulations of the phrase appeal to the conscience of the "ordinary man" or reasonable person, such that a manifestly illegal order is understood to be an order so immoral that every reasonable person would recognize it as such (Osiel 2002, 79).

Under the manifest illegality approach military personnel are not required to exercise any extra moral deliberation about the legality and morality of their orders, in cases where their orders are of doubtful but not manifest illegality. It is worth noting that the manifest illegality approach supposes that military personnel cannot be expected to know more about the laws of war than ordinary civilians. As Mark Osiel points out, it "abandons the civilian fiction that everyone knows his legal duties" (2002, 55). The manifest illegality approach only requires that military personnel have the moral understanding of the ordinary person. This is strange given that the military claims to be a profession and claims that military personnel are professionals, which implies that they possess a greater level of expertise in the laws of war than the ordinary person. However, leaving this concern aside, it is clear that while military personnel have a presumptive duty to obey orders, they are expected to disobey manifestly illegal orders—at the very least, this requires them to possess the moral understanding of ordinary citizens. There are blatant inconsistencies between theory and practice, but military law and rhetoric make it clear that military personnel cannot be excused for obeying obviously illegal or immoral orders.¹¹ International justice requires that

11. They might be excused if disobedience carried with it a very serious threat to the combatant's well-being. However, the threat

military personnel be held accountable for their actions during combat, particularly when those actions violate the law of armed conflict.

Furthermore, the concept of the good fighter *requires* individuals who are responsible moral agents. As is evident from the frequent reference in books, websites and other military publications to military virtues such as courage, obedience, and loyalty, the ideal of the good fighter is not just an ideal of technical excellence but is highly moralized.¹² There is a growing recognition that cultivating good moral behavior is an essential part of military training and an essential way of preventing breaches of military ethics and international law (Aronovitch 2001; Cook 2004; Hartle 2004; Osiel 2002; Sherman 2005). Good fighters therefore must not only be physically fit, disciplined, and mentally tough, they must also uphold the laws of war as embodied in international treaties such as the Geneva Conventions, domestic legislation, and the rules of engagement relevant to particular deployments.

While one may be cynical about the sincerity of these appeals to moral virtue, it is important to realize that the concept of the good fighter must be highly moralized if the military is to have any substantive moral justification. If the military is to be distinguished from mercenary forces, it must aim to meet the high moral and professional standards that constrain its actions. To do this requires military personnel who can and will exercise moral judgment and reflection in the course of their duties. As one American Special Forces Colonel put it, "Our guys have got to be confident in their ability to use lethal force. But they've got to be principled enough to know when not to use it. We're not training pirates" (Maas 2002, 55). As the military's special moral permissions are very great—involving the use of deadly force

would have to be both imminent and very serious to act as such an excuse. The threat of a possible court-martial and loss of employment does not seem to me to provide such an excuse in cases where war crimes were carried out. Other excusing conditions that might mitigate the degree of combatants' moral responsibility include the extreme group pressure to conform to the military's requirements, training methods that aim to instill instant obedience (Grossman 1995), and serious penalties for disobedience. As Jeff McMahan notes, military training and military culture aims to instill a high degree of obedience in combatants, and while this (and other features of military life) might be important for military functioning, "there is also no question that they [these features] tend to diminish the autonomy and moral responsibility of individuals combatants." (1994, 206). However, at most these coercive factors might mean that in certain circumstances we excuse the behavior of combatants on the grounds that the coercive pressures were such that it would be unreasonable to expect them to have acted otherwise than they did. The coercive features of the military institution contribute to an explanation of why military personnel obey orders and conform, but they do not demonstrate that the capacities needed for responsible action are undermined in military personnel.

12. This is similar to the common-sense ideal of the good physician, which usually include a set of moral traits (e.g., empathy, benevolence) along with technical skills. For a discussion of the virtues of the good physician, see Oakley and Cocking 2002.

and immense destructive power—every member of the military must strive to uphold the military's high professional standards, not only in terms of professional expertise but in terms of moral character as well. The seriousness of military action provides a strong *prima facie* reason to demand higher standards of moral conduct from military professionals than we might require from practitioners of other professions. Good military personnel cannot be mere automatons carrying out orders; they must be responsible moral agents who are capable of assessing the morality of their orders and, if necessary, disobeying them. Good military personnel must therefore have the capacity to understand and reflect upon their actions and control their behavior.

However, someone might object at this point that what matters most in a war zone is the behavior of military personnel, not whether they are motivated by the correct moral principles or are virtuous people. Perhaps the ideal military character that I have outlined is simply unrealistic. Because war is so destructive, perhaps it is just more important to get military personnel to do the right thing instead of worrying about whether they are responsible moral agents.

There are two problems with this objection. First, no one denies that getting military personnel to do the right thing is absolutely crucial, but this does not mean that we are permitted to use any means possible to get them to behave correctly. The ethical constraints on military action imposed by the laws of war and the military's own ethical standards restrict what may be done to military personnel as much as they restrict how wars can be fought. To treat military personnel as automatons is to deny their status as persons and to undermine the claim that the role of combatant is an honorable role. If we take this route we would be effectively admitting that military rhetoric about the importance of good moral character and the high moral standards of the military profession is just that: rhetoric. This, I believe, is the wrong route to take, and is inconsistent with the importance given to military ethics in international law and by military personnel of all ranks.

Second, if we accepted the view stated previously, the good behavior of military personnel would be entirely contingent on the morality and legality of the orders they were given and how well they were trained. But, as history (as well as current events) has shown, we simply cannot rely on the military authorities to only give legal and moral orders. It is too risky to absolve military personnel *entirely* of any responsibility for what they do in combat, and such an approach would fly in the face of international law and the military's stated commitment to training military personnel to be ethical and effective.

As we have seen, the ethical constraints imposed by the military's professional status and its commitment to military law require military personnel who are morally responsible agents. There is also a further reason why the use of technologies that undermined combatants' status as morally responsible agents would be morally impermissible. Undermining an agent's capacity for responsible action harms them directly by undermining their integrity and their

ability to see themselves as the authors of their actions—as the proper subject of moral emotions such as guilt and remorse.

MORAL RESPONSIBILITY, INTEGRITY, GUILT, AND REMORSE

In order to maintain a sense of integrity and to experience the moral emotions of guilt and remorse, we must recognize our actions as arising from our own agency. In other words, we must be responsible for what we do. Undermining the conditions of moral responsibility would therefore undermine an agent's capacity to incorporate her actions into a coherent personal narrative and curtail her ability to feel guilt and remorse about actions that have resulted in harm to others. As I will demonstrate, this would be particularly harmful to military personnel because of the moral significance of combat and the need for military personnel to reflect upon and understand the moral consequences of their participation in combat.

In the philosophical literature, integrity is often defined as an experience of personal unity or wholeness; a state in which there is a match between an agent's values and important projects, and her behavior. Understood in this way, to possess integrity requires that our actions are consistent with and reflect our judgments about what we consider valuable; it requires that we *own* our actions. As Gabrielle Taylor writes, "The person of integrity is autonomous and takes responsibility for her actions and choices. What she does or chooses is truly hers" (1985, 109). In Taylor's view, the person of integrity retains control over his value judgments—he does not allow other people or adverse circumstances to exert too great an influence over his evaluations. Even when his options are severely restricted, for example by imprisonment, he does not forget what he values:

In contrast to those who are not at all clear about their personal point of no return, the prisoner who, while forced to do what he thinks degrading, knows what he is doing and why, saves his integrity. Even though he has no control over what he actually does, he at least retains control over his evaluations in the sense of being sure which sort of desires he would consistently want to be effective in any circumstances other than these extreme ones (Taylor 1985, 125).

A person with no strong commitments, who changed their conception of value from day to day and whose reasons for their behavior varied greatly, would not be a person of integrity under Taylor's account. As such, we would be likely to judge such a person negatively. We would not consider them morally admirable, and we would be unlikely to think that they would live a contented and fulfilled life. A sense of continuity and wholeness is a trait that we seek to develop in ourselves and that we admire in others. In its simplest sense, this sense of continuity and connectedness is crucial for our everyday conception of personal identity. As Walter Glannon explains, our memories of what we have seen and done are an essential part of our self-conception:

Episodic memory of events involving personal experience is necessary for the psychological connectedness and continuity that gives one the feeling of persisting through time as the same person (Glannon 2006, 74).

Taylor's account of integrity is similar to that offered by Bernard Williams. According to Williams, a person of integrity is a person whose identity over time is connected to consistent and enduring commitments to projects that he values. The agent: "is identified with his actions as flowing from projects or attitudes which . . . he takes seriously at the deepest level, as what his life is about" (1973, 116–117).

Taylor and Williams both link integrity to identification with and responsibility for one's actions, and they both define integrity as involving a deep commitment to the values and projects that the agent considers most important. However, neither Williams nor Taylor differentiate those individuals whose values are deeply held but corrupt from those whose values and deep commitments are morally admirable (Taylor 1985, 128). For example, a committed homophobe may act consistently from her deeply held values and in this sense she would have integrity (Taylor 1985, 128). For integrity to be a *moral* virtue would require the stronger claim that persons with integrity are committed to the right kind of moral evaluations, and neither Taylor nor Williams make this claim. Taylor does, however, argue that possessing integrity implies also possessing good practical reasoning, which would rule out certain kinds of moral beliefs as irrational or confused—the person of integrity must "get her practical reasoning right" (1985, 128). However, a person of integrity need not be a moral saint or even strive to be a moral saint. So integrity is valuable not because it leads to moral excellence (although it is probably necessary for such excellence) but because of the connection between a person's deeply held beliefs and their ground projects, and the sense of wholeness or continuity that this gives rise to and that is part of a flourishing human life. What is essential for this form of integrity is not moral goodness but moral responsibility—being able to see one's actions as flowing from one's reasons and one's evaluations even if such evaluations are revised over time. To maintain integrity we must therefore be able to recognize ourselves as the authors of our actions.

Such recognition is also central to what have been called the "moral emotions" of guilt and remorse.¹³ Guilt and remorse are emotions of self-assessment that we experience when we have done something that we believe to be morally wrong, particularly when we have harmed others. We experience these emotions when we see ourselves as intimately connected with those around us so that we feel responsible for how our actions affect others, and when we try to incorporate what we have done into our self-understanding and

13. Shame and regret have also been called *moral emotions*. However, as noted by Taylor, neither shame nor regret requires responsibility. We can feel shame about something we are not responsible for, such as our height, and we may feel regret over states of affairs that we have not caused, such as the passing of summer (Taylor 1985, 89).

self-evaluation. As Taylor explains, an agent feels guilt and remorse when he:

sees himself from the point of view of being an agent in the world, who tries and succeeds or fails to bring about certain states of affairs; he sees himself as being affected by others, and he takes a view of his own effectiveness and the value of what he has achieved (Taylor 1985, 108).

When we assess ourselves, morally speaking, we aim for cohesion between our behavior and our moral beliefs. When achieved, this cohesion is a form of integrity. The value of these emotions lies in how they prompt us to reflect upon our actions and the kind of people we wish to be; the sting of guilt and the pang of remorse alert us in a very direct way to the consequences of our actions and the discrepancy between how we behave and how we wish to behave. Both these emotions are directed towards the agent as the cause of harm. In order to experience guilt and remorse I must see myself as responsible for harm to others: "... guilt is directed toward my agency; in it I am concerned with *what I have done* and so with the *victim of my actions*, with the harm or injury I have caused him" (Dilman 1999, 322). Similarly, "Remorse is always felt about an event the agent sees as an action of hers" (Taylor 1985, 98). Because we experience ourselves as a participant in the world (rather than a spectator) we recognize that our actions affect others, and we may experience remorse and guilt even when we had no intention to cause harm. Williams argues that there is a unique form of regret (that is like remorse) that we feel when we have caused harm to others, intentionally or not. A truck driver who accidentally and through no fault of his own runs over a child will feel very differently than a spectator who witnesses the event. The spectator may feel regret, but the truck driver will feel a special form of regret, which Williams calls *agent-regret* (1981, 28–31), that arises out of his direct involvement in the child's death. As Williams notes, the experience of agent-regret is an important part of our everyday conception of morally appropriate responses. If the truck driver merely felt the regret of the spectator, we would consider him callous and cold because we would think that he was failing to recognize his special relationship to the child's death:

We feel sorry for the driver, but that sentiment co-exists with, indeed presupposes, that there is something special about his relation to this happening [the death of the child], something which cannot merely be eliminated by the consideration that it was not his fault (Williams 1981, 28).

We therefore cannot do away with agent-regret without losing a sentiment that is an important component of our everyday understanding of our relationship to others and the world around us, an understanding that involves knowing that we bear a unique relationship to the harm that we cause, both voluntarily and involuntarily.

Of course the emotions of guilt, remorse, and agent-regret are not always healthy. In some cases they can become an obsession with punishment or a self-indulgent self-

flagellation (Dilman 1999, 324), but in their non-corrupt form these emotions are crucial to moral development and integrity, and for maintaining our sense of ourselves as embedded in relationships with others and with the world. Agent-regret, guilt, and remorse are vital for integrity, moral reflection and moral growth.

Given the importance of these emotions, what happens to us if our experience of our actions is disrupted, so that our memories and emotional experiences are radically altered? What happens if we cannot own what we have done?

In a situation in which an agent has harmed another while under the influence of drugs or while brainwashed—where her responses and judgments are altered in ways outside her control—she will struggle to incorporate her experiences into her personal narrative and she will not be able to see herself as the author of her actions. Such a split between agency and action would affect the very conception of the self since, as Carol Freedman argues,

central to the idea of a self is the idea of a creature who may legitimately be held responsible. Without a view of ourselves as acting on reasons, we cease to be creatures who may legitimately be held responsible (Freedman 1998, 140).

If our actions are severed from our rational endorsement of them, the connection between our actions and the continuity of agency would be lost, and the dissociation that would result would threaten our integrity and curtail the possibility of the moral reflection and development that are linked to the experience of the emotions of guilt, remorse and agent-regret.

For anyone, a split between responsibility and action can be traumatic and harmful.¹⁴ It can result in the experience of dissociation, where one feels as though one's actions were performed by someone else. Individuals who have committed horrendous crimes sometimes experience such dissociation. Taylor describes this process: "Dissociation is a feature of unbearable guilt and is a consequence of the agent's view that the doer of the terrible deed is alien to his real self" (1985, 95). For some, such dissociation is a way of coping with their responsibility for monstrous wrongdoing. It can be a psychological "trick" that enables them to avoid coming to terms with the moral impact of their actions. But such dissociation is rarely morally healthy—it can be a sign of avoidance, of self-deception, and a moral failing.

But there is a crucial distinction between dissociation caused when an agent commits a monstrous act but is still responsible for that act, and dissociation caused by drugs that radically alter the agent's experience of and memory of her actions so that she cannot be held responsible for what she has done. In the first case, the agent's dissociation points to a deep unwillingness to acknowledge the full moral impact of what she has done. In the second case, dissociation

14. This would provide a reason to be cautious about the development and use in the wider society of performance-enhancing technologies that had this effect. However, as I argue, the effect will be even more serious for military personnel.

occurs because the agent *cannot* know the full moral impact of her own actions. As a result her sense of her own agency is diminished, and it will be much harder for her to incorporate her actions into a coherent personal narrative. A perpetrator of a monstrous deed can, in theory at least, eventually come to understand and acknowledge her responsibility, but an agent who was under the influence of drugs or who was brainwashed will be unable to achieve such an understanding.

An inability to understand the moral impact of one's action would be deeply upsetting for anyone, but it may be even more so for military personnel. Many military personnel will perform acts of great violence during their careers—they may be required to kill and maim enemy combatants, and they may unintentionally (and sometimes even intentionally) cause the deaths of innocent civilians. Consider then how performance-enhancing drugs that undermined responsibility would affect their experience of their own actions, and consequently their ability to feel guilt, remorse, and agent-regret.

A soldier who kills enemy combatants while under the influence of radical performance-enhancing drugs would be unable to own his actions because he would not see himself as responsible (indeed he would not be responsible) for the deaths he has caused. He might feel regret about the deaths of the soldiers he killed, but because he would not see himself as the author of their deaths, he would feel the regret of the spectator in Williams' (1981) example rather than the agent-regret of the person who sees herself as responsible for her actions. In extreme cases, if performance-enhancing technologies altered or even eradicated his memory of killing, he would be likely to feel extremely dissociated from the acts he has performed—to see them as if someone else performed them. He would be unable to incorporate his acts of killing into his self-narrative—those acts would become aberrations, disowned by him as if they were the acts of a stranger. The rational knowledge that "it was me who killed that man" might remain but the affective content of that knowledge would be lost.

Some military personnel already experience this kind of dissociation at the time of killing. One soldier described his experience as follows:

body and soul seemed to be divorced, even to the extent that I no longer inhabited my body . . . I seemed to hover at some height over my own body and to observe its doings and the doings of others with a sort of detached interest (Bourke 1999, 221).

This kind of dissociation might be interpreted as a coping-mechanism under particularly stressful conditions, but if it were induced by performance-enhancing technologies it would become the standard experience of killing.

This is particularly troubling because military personnel are required to commit acts of extreme violence that require a high level of moral justification. Military personnel have to live with what they have experienced and what they themselves have done in combat situations. To do this successfully they must be able to reflect upon their experiences

and their actions and, hopefully, integrate those experiences into a coherent personal narrative which will enable them to maintain a sense of integrity. Even if the acts of violence they committed were justified, military personnel must still come to terms with their participation in acts that caused great harm and suffering to others. Such reconciliation requires that they see themselves as responsible for what they did. Like Williams' (1981) truck driver, we would expect them to recognize their special relationship to the harm they have caused, and to feel the agent-regret and remorse that is characteristic of that relationship. Experiencing these emotions can also be part of the process of recovery from combat. Research into PTSD and other post-combat psychological disorders consistently shows that combatants' recovery is aided by being able to talk about what they witnessed and what they did, particularly about their involvement in killing and causing violence (Kilner 2000, 3).

The recognition of responsibility for harm is even more crucial if military personnel have violated the laws of war during combat. When military personnel have committed war crimes it is, if anything, even more important that they have the capacity to understand the moral impact of their actions and the capacity to recognize their own culpability. While such moral reflection might cause great distress for military personnel, it is crucial to moral understanding and moral growth. We *want* military personnel to struggle with the morality of their participation in war, even when that participation is justified and even more so when it is not, and we would expect them to feel guilt, remorse and agent-regret about what they have done. If performance-enhancing technologies undermined combatants' moral responsibility for their actions in combat, this would allow them to distance themselves from the moral implications of their participation in combat far too easily, which would hamper the moral growth and understanding that comes from the experience of emotions such as guilt and remorse. Given the moral significance of war, this consequence is deeply troubling.

Furthermore, many military personnel believe that they should feel guilt and remorse about the deaths they have caused, even when those deaths were justified. According to Joanna Bourke,

Combatants strongly believed that they *should* feel guilty for killing; it was this precisely this emotion that made them 'human', and enabled them to return to civilian society afterwards (Bourke 1999, 238)

A failure to feel guilt and remorse can be deeply upsetting, and a source of shame. A bomber pilot in the Vietnam War wrote that:

The deep shame that I feel is my own lack of emotional reaction. I keep reacting as though I was simply watching a movie of the whole thing. I still don't feel that I have killed anyone . . . Have I become so insensitive that I have to see torn limbs, the bloody ground, the stinking holes and guts in the mud before I feel ashamed that I have destroyed numbers of my own kind? (Bourke 1999, 221).

To deliberately induce a lack of emotional response in military personnel through performance-enhancing drugs that undermine responsibility would therefore not only threaten the integrity of military personnel and their ability to understand and learn from their experience; it threatens their long-term emotional and psychological well-being.

CONCLUSION

I have argued that maintaining combatants' status as morally responsible agents is crucial for two reasons. First, the military's ethical commitments and the constraints imposed by the laws of war require that military personnel are able to be held accountable for their actions in combat. Undermining the moral responsibility of military personnel would therefore undermine the military's claim to be a morally justified profession and would treat military personnel as objects to be manipulated rather than persons who are moral agents. Second, maintaining the conditions of moral responsibility is essential to the integrity of military personnel and their ability to reflect on and understand the moral consequences of their actions. Even in a just war, we want combatants to recognize, on a personal level, that participation in combat is something that requires a high level of moral justification and that involves the commission of acts that are extremely morally serious. While military personnel who kill enemy soldiers and (unavoidably) civilians in a just war are not blameworthy, it is appropriate that they feel agent-regret and remorse for the deaths they have caused—and indeed many military personnel feel that they should experience those feelings. If performance-enhancing technologies dissociated military personnel from their actions, their awareness of the moral import of their actions and their ability to understand and learn from the moral consequences of those actions would be severely compromised.

Given the importance of maintaining the moral responsibility of military personnel, and maintaining their ability to understand their own actions, there are clear limits to the kind of performance-enhancing technologies that may be used in the military. Technologies that undermined combatants' capacities for responsible moral agency would be impermissible, even if such technologies enhanced other aspects of military performance. This constraint need not rule out all performance-enhancing technologies. Enhancements that improved armor, muscle strength and stamina will likely be relatively unproblematic under my account. However, the importance of moral responsibility in the military means that research into performance-enhancing technologies must examine how these technologies will affect combatants' emotional responses and moral decision-making. Without such prior research, there is a substantial risk that new technologies will be implemented before their full ramifications are understood.

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