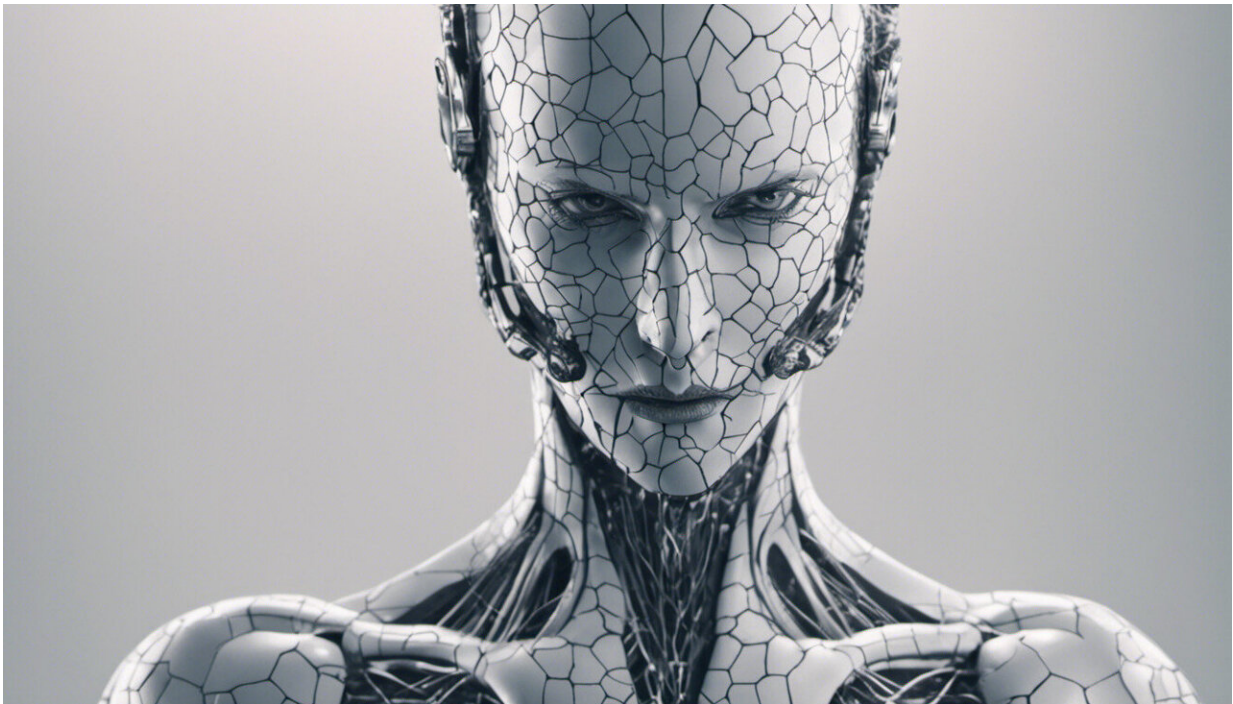


Stronger, faster and more deadly—the ethics of developing supersoldiers

March 1 2017, by Adam Henschke



Credit: AI-generated image ([disclaimer](#))

Enhancing a soldier's capacity to fight is nothing new. Arguably one of the first forms of enhancement was through improving diet. The phrase "an army marches on its stomach" goes back at least to [Napoleon](#), and speaks to the belief that being well fed enhances the soldier's chances of winning a battle.

But recent research has gone well beyond diet to [enhance the capabilities of soldiers](#), like purposefully [altering the structure and function of a soldier's digestive system](#) to enable them to digest cellulose, meaning that they can use grass as a food.

Perhaps their cognitive capabilities could be substantially altered so they can make more rapid decisions during conflict. Or their sensitivity to pain could be diminished, or even the severity and likelihood of post traumatic stress disorder (PTSD) reduced. Or even the direct [wiring of prostheses to their brain](#).

This kind of biological and technological enhancement is often referred to as developing "supersoldiers". It's not science-fiction; research is underway around the world. And it brings with it a host of ethical concerns.

Ethical dimensions

One concern revolves around the capacity for a soldier – or any other member of a military force – to give meaningful [informed consent](#) to partake in clinical research or undergo enhancement.

The concern here is twofold. First, some of these interventions would be confidential; a military might justifiably want to keep new technologies top secret. This need for secrecy can impact how much information the subjects of enhancement receive, thus impacting the "informed" part of [informed consent](#).

Second, we might have concerns about whether a soldier can actively consent to enhancement. That is, the hierarchical command structures and training in the military may impact the soldier's capacity to refuse enhancement. Given the prominence of [informed consent to medical ethics](#), this is a core issue for enhancement before we even get to

conflict.

Numerous forms of enhancement look at ways of indirectly or directly impacting the soldier's cognitive capacities. One example is [countering the need for sleep](#) through the use of drugs like amphetamines or Modafinil, or other longer-lasting neurological interventions. Another is enhancing a soldier's [capacity to make moral decisions](#).

Another concern is what might happen if we reduce a soldier's capacity to experience trauma with a drug like [propranolol](#), which is being investigated for its ability to dampen the emotional force of particular memories. If administered rapidly after a particularly traumatic military activity – say, killing a teenage combatant to protect a school full of children – this pharmaceutical intervention could reduce the likelihood or severity of the soldier developing post traumatic stress disorder ([PTSD](#)).

Moral obligation

The ethical worries here turn on whether such interventions negatively impact a soldier's capacity to follow the laws of war. However, if these enhancements don't increase the chances of the soldier committing [war crimes](#), then perhaps there is even a [moral obligation](#) to enhance soldiers in such situations.

Conversely, there are reasons to be worried that enhancing soldiers can make their opponents, or even civilians, treat those soldiers immorally. For example, if it is believed that enemy soldiers are enhanced so that they don't feel [pain](#), some might be more inclined to torture them.

Treating the enemy as inhuman or subhuman is sadly all too common [through history](#). Enhancements may exacerbate this process, particularly if opposing groups can classify their enemies as inhuman mutant

supersoldiers.

Another concern is around the [soldier](#)'s life after conflict ceases or they leave the military. For instance, does an enhancement have to be [reversible](#)? And if not, what special responsibilities does the military have to care for veterans, above and beyond existing supports? Similar issues have already been [explored in science-fiction](#).

In a sense, none of these [ethical concerns](#) are specially new. Informed consent, limiting war crimes and a responsibility to care for veterans are hardly novel ideas.

What enhancement technologies do is shine a light on existing behaviour. And though we don't need to worry about enhanced soldiers becoming mutant superheroes quite yet, there is value in considering the ethical aspects of such technologies before they are used rather than after the fact.

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