Making People Better?

Lessons from *Serenity* on Moral Enhancement

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Abstract

In this paper I use the 2005 science fiction film *Serenity* to consider whether moral bioenhancement is uniquely problematic—that is, beyond other forms of human modification, such as physical or cognitive enhancement. In doing so, I assess five objections to moral bioenhancement: we lack consensus on what morality is; the consequences could be dire; it is extremely hard to get this kind of enhancement right; and moral enhancement could conflict with human freedom in two distinct ways. While *Serenity* seems set against moral enhancement, I conclude that the objections are concerning but not decisive.

Imagine: over the next decades humans continue to neglect the environment, leading to predictably awful results. Temperatures rise, and with them, tensions between factions as they compete for ever-scarcer resources. The gap between haves and have-nots widens. An aggrieved party with little to lose acquires weapons of mass destruction and the unthinkable happens: global nuclear apocalypse… But wait! A plucky group of scientists invents a time machine. What should they go back and change? Just preventing the bombs' deployment will not fix the underlying problem. The problem is us. Humans are selfish and short-sighted, unwilling to make sacrifices for the greater good. So, the scientists travel back a couple of generations and employ biomedical techniques to make people *ethically* better, enhancing their ability to discern the right thing to do and the motivation to do it. Thus improved, humanity takes the steps needed to avoid the doomsday scenario.

Is this the plot to a science fiction movie? No. I have found no sci-fi films that portray moral bioenhancement in a positive light, and few text stories that do. There are relatively positive film depictions of physical enhancement (for example, *Captain America: The First Avenger*, 2011) and cognitive enhancement (*Limitless*, 2011). Why not moral enhancement? Is this a prescient hint from popular culture to avoid this kind of intervention? In this paper, I will evaluate reasons for thinking that moral enhancement is uniquely problematic among enhancement technologies. In doing so, I will gain philosophical insights from the film *Serenity* (Whedon 2005).

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Though precise definitions vary, moral enhancement can be characterized as attempts to improve people's ethical reasoning, motives, or behavior. This definition is broad enough to include traditional means of improvement, like moral education or emulating virtuous friends. Philosophical discussions typically focus on enhancement via nontraditional, biomedical methods—that is, moral *bio*enhancement. This can encompass speculative proposals, such as implanting people with artificially intelligent moral reasoning engines that suggest appropriate actions and back them up with theoretical arguments (Klincewicz 2016, 179-181) or genetically engineering better humans. Closer to current reality, it means medications. For example, Persson and Savulescu (2012, 403) point to drugs that increase levels of oxytocin, a hormone that acts as a neurotransmitter and seems to increase the pro-social attitudes of trusting others and being trustworthy in return—though effects may be limited to members of one's own group. These authors also cite research on selective serotonin reuptake inhibitors (SSRIs), which tend to make subjects more cooperative and fair-minded (404), and propranolol, which may reduce implicit racial bias (401).

One might, of course, object to any modification of the human condition. I will limit my analysis to reasons why moral bioenhancement is supposed to be more problematic than enhancing other human traits. Here are five such objections.

(1) What counts as 'better'? Lack of consensus regarding morality.

Beck (2015, 234-235) charges that the moral enhancement project is conceptually flawed: we cannot agree on what morality is, in order to enhance it. She does not discuss specific substantive theories, so I will add examples: Are we trying to make people better Utilitarians? Better adherents to the Categorical Imperative? More virtuous? Better respecters of inalienable rights? If we have to settle these centuries-old disagreements before we get started, we are in trouble! Though there may be subtle debates as to what counts as physical or cognitive enhancement, progress in these areas is more easily recognized and agreed upon than is success regarding moral enhancement.

Adequate replies to this charge, oddly, come from self-professed enhancement "cynic," John Shook, and critic, Robert Sparrow. The former (Shook 2012, 4) argues that, despite theoretical disagreements, we actually agree on many basic standards of morality. For instance, across cultures and theories, we agree that we ought to cooperate with each other and treat others fairly. And Sparrow grants that most of his pro-enhancement opponents, "have been careful to make only minimal and conservative claims about what moral bioenhancement would consist of and confined themselves either to advocating enhancements of individuals' dispositions to altruism and to their sense of justice, or to mitigating strong emotions such as anger, or problematic dispositions such as racism . . ." (2014, 22). If, whatever one's theoretical commitments, we can agree that these would be welcome improvements, the enhancement enterprise can get off the ground.

Similarly, the film *Serenity* (and its antecedent television series *Firefly*) could be touted as revealing a lack of basic moral consensus… but in reality, not so much. The protagonists—the spaceship Serenity's crew, who contract for illegal jobs—are "bad guys" whose thieving, etc., the audience cheers. Paradoxical? Not really. As in many other

narratives where the main characters are on the wrong side of the law, we latch onto their uncontroversially positive traits like loyalty, courage, kindness, and willingness to challenge immoral institutions.

Throughout the series, deeper ethical commitments belie the crew's apparent amorality, as they are pushed to lines they will not cross. For instance, in *The Train Job*, they happily accept a contract to steal government property: "Got us some crime to be done!" Yet they are uncomfortable about working for an evil psychopath, and when they learn that the object of their theft is desperately needed medicine, they return the cargo, risking said psychopath's wrath. In *Serenity*, they rob a bank, but they make it clear that this theft will not harm the locals, offer to slightly wound a guard so he is not blamed for the robbery, and take steps to protect the townspeople from marauders. Even when they do apparently reprehensible things, like shooting a man who tried to hitch a ride on their escape vehicle, the action is justified by coherent values: protecting other members of the crew, saving the man from a horrific fate, choosing the lesser of two evils.

(2) It could all go horribly wrong: The threat of dire consequences.

On the surface, moral enhancement seems *less* likely to result in bad outcomes than other enhancements, as the morally enhanced would be loath to harm or exploit others. Cognitive and physical enhancement can give us genius overlords and armies of super soldiers; moral enhancement gives us pacifist vegans who compost diligently. Annoying, perhaps, but nothing to worry about.

Serenity is not so sanguine. Let us zoom in on the part of the film that explicitly addresses moral bioenhancement. The crew arrives on Miranda, a colony whose inhabitants are dead from no apparent cause. A prerecorded message explains:

> There's been no war here and no terraforming event. The environment is stable. It's the Pax. The G-23 Paxilon Hydrochlorate that we added to the air processors. It was supposed to calm the population, weed out aggression. Well, it works. The people here stopped fighting. And then they stopped everything else. They stopped going to work, they stopped breeding, talking, eating. There's 30 million people here, and they all just let themselves die.
>
> About a tenth of a percent of the population had the opposite reaction to the Pax. Their aggressor response increased beyond madness. They have become . . . Well, they've killed most of us. And not just killed . . . they've done things . . .

As the monsters—later known as Reavers—beat down the door to kill and defile the scientist recording the message, she laments, "We meant it for the best . . . to make people safer." (1:18:14 – 1:19:50)

Our characters are deeply shaken and feel compelled to spread the word about what happened. Their captain, Mal, draws an anti-enhancement moral: "A year from now, ten, they'll swing back to the belief that they can make people . . . better. And I do not hold to that." (1:21:49) Other forms of bioenhancement can go wrong too, of course, but there is something about the planetary-level failure-despite-good-intentions here that is especially chilling.

Yet, is this tragedy really an indictment of moral bioenhancement? As it stands, I think it is more aptly construed as a warning not to do a *terrible job* of moral bioenhancement. Was Pax not subjected to clinical trials? The investigators could perhaps be excused for missing the psychosis that occurs in 0.1% of subjects, but not the catatonic lethargy that occurs in the other 99.9%! Of course, it is not surprising that the film did not walk us through careful evidence review and Institutional Review Board deliberations. Action-oriented movies often generate conflict by having power-hungry antagonists cut corners, risking terrible consequences. But the Miranda engineers' apparent carelessness undercuts the objection that moral bioenhancement is too risky. Many things are too risky if you take zero precautions. The fact that doing "X" irresponsibly leads to disaster does not entail that X itself is problematic.

(3) It is excruciatingly hard to get it right.

For a more nuanced critique, we need to zoom out to the rest of the movie. It starts with Dr. Simon Tam rescuing his 17-year-old sister, River, from the Alliance, an interplanetary governing body that is subjecting her to cognitive and physical enhancement against her will. Serenity takes the pair onboard. They are pursued by a character known only as The Operative. A subliminal message triggers River's enhancement programming, prompting her to display awesome fighting skills and whisper the word "Miranda." The Operative is wholly committed to the Alliance's agenda; he will do anything to retrieve River and keep the failed colony secret:

> Mal: I don't murder children.
>
> The Operative: I do, if I have to. (1:08:10)

Although there is no indication that the Operative was enhanced, this character illustrates a challenge facing moral enhancement: attaining balance. Why did the Miranda project fail so spectacularly? The designers changed one feature of the subjects' psychology, without changing other features to compensate. If you dial down people's aggression, you may need to dial up their other appetites so they do not lose their will to live. Other single-vector attempts to improve people could also end badly. Ramp up positive traits like loyalty to a cause and perseverance, without also increasing traits like humility, and you may end up with a zealot like the Operative.

Hughes (2015) frames this challenge through Virtue Ethics. Virtue theories see character development as an integrative endeavor: we cultivate multiple virtues that depend on, complement, and moderate each other. Developing a virtue does not mean developing the relevant tendency to the greatest degree possible, as doing so typically leads to vice. For instance, too much willingness to accept risk pushes one beyond courage and into foolhardiness. Instead, we need practical wisdom to judge how much of each virtue should be expressed in various situations (86). Hughes defends a four-parameter plan, in which the following areas would be enhanced:

1) Self-control: *sophrosyne*, restraint, conscientiousness, and temperance
2) Niceness: agreeableness, extraversion, empathy, and fairness
3) Intelligence: *phronesis*, open-mindedness, curiosity, love of learning, and prudence
4) Positivity: lack of neuroticism, emotional self-regulation, positivity, bravery, and humor (89)

The various capacities listed balance each other. Self-control is important for avoiding inappropriate anger and self-indulgence. But too much self-control inhibits one's enjoyment of life; positivity can keep it in check. Niceness makes us compassionate and easy to get along with, but it needs to be tempered with prudence and other virtues (89-92) or we become doormats. Intellectual virtues (e.g., #3 on the list) work hand-in-hand with moral virtues, indicating that cognitive and moral enhancement may be intertwined. The upshot of Hughes's proposal is that moral enhancement is a complicated endeavor, a balancing act. We should not expect a single "morality pill" but rather a regimen of carefully calibrated interventions.

Serenity further illustrates how tricky this can be. Mal and the Operative are set up as foils for each other, with Mal representing pragmatism and commitment to his crew, while the Operative is an extremist devoted to the big picture ("I believe in something greater than myself: a better world; a world without sin." 1:08:25). Mal comes off better in this comparison; the Operative is, by his own admission, "a monster." But Mal's character arc in the movie and preceding TV series involves expanding his circle of concern and becoming just a bit like the Operative. Mal's sometime spiritual advisor Shepherd Book states that the Operative "believes hard" and that it does not matter so much *what* Mal believes, so long as he *believes* it (46:36, 1:06:48). In the end, Mal endangers everyone he cares about for an abstract ideal: that what happened on Miranda must be made known. Moral excellence, it seems, requires a touch of extremism, activated under extreme circumstances. That would be an awfully specific tendency to try to induce biomedically.

Still, there is no reason to think moral bioenhancement must operate in a vacuum. Just as psychoactive medications can be more effective alongside therapy, moral enhancement drugs may supplement judgment gained through education and human relationships. The fact that an endeavor is exceedingly difficult warrants caution, but might not preclude undertaking it. This is particularly true if we set our sights on small gains rather than huge transformations.

(4) It might be forcibly imposed, limiting freedom.

Suppose we figure out how to successfully titrate "morality meds" and coordinate them with other forms of learning, resulting in a reliable method for improving people's ethical reasoning and behavior. Should everyone be required to submit to this regimen? Is moral enhancement more likely to be forcibly imposed on people than other forms of enhancement? If so, the injustice of this imposition might outweigh whatever good moral enhancement achieves.

River's enhancement is unquestionably involuntary, an act of violence upon a vulnerable person. We first see her in a flashback to childhood, which transitions to current-day with the motion of a needle being thrust into her forehead (2:10). She is baby-faced, fragile, strapped to a chair, crying softly as she hallucinates, while the attending scientist smarms about how they do their best modification work while the subject is asleep. The enhancements here are cognitive and physical rather than moral; the Alliance wants to make River a living weapon. Similarly, the attempted moral bioenhancement on Miranda is also involuntary, or at least nonvoluntary. Even if the colonists signed some blanket agreement, there is no indication that they consented to the Pax in any meaningful way. Oddly, there is no push to tell the world about how River was violated; only the Miranda situation warrants that.

Miranda is, of course, a larger-scale atrocity. It is also one that the crew seems convinced will be repeated, with Mal asserting, "Sure as I know anything, I know this—they will try again." (1:21:24) He does not say why he thinks it is inevitable. But we can glean a hint from the opening monologue of the movie, River's flashback/ hallucination of a teacher explaining Alliance history:

> Earth that was could no longer sustain our numbers, we were so many. We found a new solar system, dozens of planets and hundreds of moons. Each one terraformed, a process taking decades, to support human life, to be new Earths. The Central Planets formed the Alliance. Ruled by an interplanetary parliament, the Alliance was a beacon of civilization. The savage outer planets were not so enlightened and refused Alliance control. The war was devastating, but the Alliance's victory over the Independents ensured a safer universe. And now everyone can enjoy the comfort and enlightenment of true civilization. (0:55)

Humans tend to regard our own in-groups as civilized and enlightened, while the "other" is seen as savage. Thus, bringing the other up to our moral standards, even by force, is really helping them. Whether it is confining Indigenous children to residential schools, or putting Pax in the air processors, the goal of inclusion in the civilized world is used to justify the means.

Some philosophers who support moral bioenhancement believe it should be mandatory. Persson and Savulescu say that if safe and effective moral enhancements are developed, "their use should be obligatory"; such enhancement "would be compulsory" (qtd. in Harris 2011, 106). There is a touch of ambiguity here, in the phrase "their use." Saying that it is mandatory for us, as a society, to implement moral enhancement is not exactly the same as saying that it is mandatory to enhance each individual. There are places where Persson and Savulescu seem to indicate that they are *not* envisioning universal enhancement. In their book *Unfit for the Future* (2014), they suggest that "some children should be subjected to moral bioenhancement" (113), discuss the challenge of "morally enhancing the majority of people in modern democracies" (124), and note that enhancement "could not realistically prevent there being a small number of morally warped individuals" (125). One would expect universalists to push for enhancing *all* children, the *entirety* of people. Perhaps they are just being practical: no public intervention

expects to get everybody, even if doing so is desirable. In any case, Harris clearly interprets them as calling for universal application (2011, 110) and Sparrow concurs that this would be necessary in order for moral enhancement to do the job Persson and Savulescu want it to do: prevent a situation like the one outlined at the beginning of this paper, that is, our demise via environmental decline and weapons of mass destruction (2014, 21).

Whether 100% of the population must undergo moral enhancement to achieve societal goals or, say, 80%, this is still more of the population than we can expect will undergo it independently, which could lead to coercion. But that does not necessarily imply a Miranda-like situation of involuntary dosing. Nudges, market forces, and other social pressures could do the trick. If moral enhancement becomes available, wouldn't we require it of law enforcement, doctors, and teachers? Could someone be elected to public office without it? What starts out as something to puff up one's resume could easily become a *de facto* requirement. And once the morally enhanced start having children, they will not want their offspring to be ethically worse than they are, so the cycle continues. Had the Miranda colony survived and flourished, a public referendum to continue using Pax would likely have passed, in the name of continued public safety.

How uniquely problematic is it that the decision to undergo moral enhancement may not be entirely free? Governments mandate basic education and vaccination, and social/economic pressure pushes people toward post-secondary education. A proponent could argue that, like these measures, moral enhancement is in both the individual's and the state's best interest. So, while draconian enforcement methods may raise ethical concerns, modest legal and social pressure may be acceptable. Furthermore, it is not clear that coercion is more of a problem for moral enhancement than for other kinds of enhancement. Vaccination is a kind of physical bioenhancement, recently contested. And market pressures currently push students and workers to use mild cognitive enhancement in the form of nootropic medications, originally intended for individuals with ADHD, that increase alertness and attention. To be clear, I am not arguing that social and economic coercion is generally good. It can range from misguided and harmful to overall beneficial and morally tolerable. My point is that it does not seem to be particularly more of a problem for moral enhancement as compared with other kinds of enhancement.

(5) Moral bioenhancement undermines freedom and agency.

So far, the objections against moral enhancement ought to give us pause, but they appear to be potentially surmountable challenges or issues that plague other forms of enhancement as much as the moral variety. The last objection I will consider is, I think, more concerning, and it is specific to moral bioenhancement: this kind of enhancement undermines our moral agency. Although both are related to freedom, this objection is distinct from the previous one in that the concern is not whether moral enhancement might be forced upon one, but what this kind of enhancement does to our ability to truly be responsible for our own actions.

River taps into this concern when she assesses why people resist the Alliance's attempts to civilize them: "We meddle. People don't like to be meddled with. We tell them what to do, what to think. Don't run, don't walk. We're in their homes and in their heads

and we haven't the right. We're meddlesome." (2:05) The implication being that it is one thing to change people's physical or even cognitive abilities, but fiddling with their ethics is too personal and controlling; it usurps their sovereignty over themselves.

Harris argues that moral bioenhancement robs us of freedom and, hence, moral agency. He takes inspiration from Milton's *Paradise Lost*, particularly God's claim to have made humans "sufficient to have stood, though free to fall" (Harris 2011, 103). That is, we have the wherewithal to behave morally, but we also have the ability to choose not to do so. He argues that this autonomy is "threatened by any measures that make the freedom to do immoral things impossible" (105). For, if we cannot choose to do the wrong thing, there is no virtue in doing the right thing (104). Thus, "sufficiency to stand is worthless, literally morally bankrupt, without freedom to fall" (110). Even if this kind of enhancement saves us from worldwide destruction, it is not worth it.

To illustrate, contrast two scenes where River goes into badass-fighting mode and thrashes everyone in the room. In the first, her subconscious programming was triggered; she is not in control of herself. The crew worry that she is dangerous to them, but (mostly) do not hold her responsible for what she does; Mal actually blames her brother Simon instead, for not warning them of this risk. In the second scene, River voluntarily dives into a horde of Reavers to protect her brother and the crew. She is using abilities that she was given against her will, yet she does so freely. There is not much time for chit-chat about ethics, but it is clearly framed as a hero move and it cements her place on the ship.

What is unconvincing about Harris's objection is that the moral bioenhancements proposed so far are not *programming*; they do not come close to making it impossible to behave immorally. Diminishing bias, improving cooperation, beefing up virtues like self-control and positivity—all of these leave plenty of room for people to mess up. Persson and Savulescu reply that Harris "seems to think that those who are morally enhanced will turn into mindless robots who do not act for reasons." (2013, 128) Rather, they argue, the morally enhanced would act for the same sorts of reasons that virtuous people do today. The only sense in which it is impossible for them to do wrong is the sense in which kind people do not act cruelly: nothing stops them from doing so; they are just not motivated to do it. Persson and Savulescu note research showing that women are more altruistic and less aggressive than men. But that does not make women any less free. So, they reason, if men could be enhanced to be more like women in this regard, there would be no loss of freedom (130).

Part of Harris's disagreement has to do with his unusually narrow definition of what counts as moral enhancement; in short, for him "enhancement" is a success term. If it does not work, then it is not an enhancement. In contrast, for example, Douglas states that, "a person morally enhances herself if she alters herself in a way that may reasonably be expected to result in her having morally better future motives, taken in sum, than she would otherwise have had." (2008, 229) The "reasonably expected" clause rules out poorly conceived interventions, but does not mandate effectiveness. Harris, on the other hand, understands enhancements not "in terms of the intention . . . but rather in terms of their effect" (qtd. in Raus et al. 2014, 268). He defines moral enhancement strategies as those

"which involve engineering, programming, or compelling moral improvement." (Harris 2016, 14) On Harris's account, what happened on Miranda was not moral enhancement. Everybody died or went mad; nobody actually improved.

While Harris may be exaggerating the necessary intrusiveness of moral enhancement, Persson and Savulescu downplay it. If moral enhancement is supposed to save humanity, it will have to go further than the proposals currently on the table. By Persson and Savulescu's own admission, these techniques are only the starting point. And, while these authors hold that even perfected moral enhancement need not sacrifice freedom, they note that freedom is only one among many values and, in principle, it could be worth sacrificing it in order to reduce suffering (2012, 416).

Suppose moral bioenhancement develops to the point that it is a game-changer in the trajectory of the human race. I do not buy the idea that this would mean we *cannot* do anything wrong. But let us assume that deeply immoral actions become repellent and it becomes much easier to do the right thing. Ethical reasoning becomes as simple as basic math; we feel empathy for all of humanity the way we now do for friends and family; *akrasia* (knowing the right thing to do but lacking the will to do it) is for the most part a thing of the past. Would that make our good behavior "literally morally bankrupt" as Harris contends? I do not think so. One would still choose *which* good things to do, with some being better than others. And kindness is still kindness, even if it is also the path of least resistance. But great ethical achievements could become less worthy of acclaim, as they are less difficult and rare. Or, perhaps, the stakes will rise, and we will find new supererogatory endeavors.

I want to close by contemplating a scene where arguably the least philosophical character in the cast, the mercenary Jayne Cobb, delivers a rant about the Reavers (this takes place before he finds out their true origin):

> Jayne: I do not get it. How's a guy get so wrong? Cutting on his own face, raping and murdering. I'll kill a man in a fair fight . . . or if I think he's gonna start a fair fight. Or if he bothers me. Or if there's a woman. Or if I'm getting paid . . . Mostly only when I'm getting paid. These Reavers, the last ten years, they show up like the boogeyman from stories. Eating people alive? Where does that get fun? (27:36)

Jayne is hilarious. He is basically a big angry ball of id. He is not too bright. His good qualities are few and far between—specifically, he is not self-deceptive, and he loves his mother. Yet, alongside listing many, many reasons he deems acceptable for murder, Jayne demonstrates how much of our ethical makeup is given to us, rather than a matter of choice. In Jayne's mind, fights are fun. Fights with ample munitions, including grenades, are even more fun. But eating people, mutilating people, desecrating corpses? Nope. It is not so much that this is an ethical line Jayne won't cross; rather, it is just not appealing to him. It is not fun. If moral enhancement tweaks the things we find fun or not fun for the better, this would improve how we treat each other, without hemming in our choices.

Thus, while the objections considered in this paper certainly raise concerns, they have not shown that moral enhancement is uniquely, prohibitively problematic. The film *Serenity* offers food for thought about various kinds of human enhancement, including moral bioenhancement. But if you ask the key players in the movie what the most important factor in molding and motivating human behavior is, they will not point to enhancement. The Operative and Mal agree on this point: it is love. The Operative opines that love, such as Simon has for his sister, is far more dangerous than madness (6:38). Mal calls love "the first rule of flying"; it is what keeps a ship in the air and makes it a home (1:52:10). It is the most powerful thing in "the 'verse." Perhaps the next target for biochemical manipulation?

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