

Moderate bioconservatism and moral enhancement

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Abstract: Moral enhancement, an instance of human enhancement, consists in the aim to alter a person's dispositions, emotions or behavior in order to make that person more moral. I will argue that moral enhancement could be carried out in three different ways. The first strategy, favored by prominent defenders of moral enhancement is emotional enhancement. The second strategy, well known from science fiction is behavioral enhancement. I will argue that only the third strategy, enhancement of empathy, is a plausible alternative. This conclusion should be, I argue, welcomed even by those skeptical to human enhancement in general.

Keywords: Human enhancement, moral enhancement, bioconservatism, bioethics, medical ethics, neuroethics, virtue, empathy,

Introduction

In Secular Humanism, a notion that has become widespread, the idea of moral improvement is central. According to the declaration of the Secular Humanist Association's tenet 5:

“Moral Education: We believe that moral development should be cultivated in children and young adults. [...] Accordingly, we support moral education in the schools that is designed to develop an appreciation for moral virtues, intelligence, and the building of character.”¹

The Holy See also has a positive approach to moral improvement as it pertains to the cultivation of virtues.

“A virtue is an habitual and firm disposition to do the good. It allows the person not only to perform good acts, but to give the best of himself. The virtuous person tends toward the good with all his sensory and spiritual powers; he pursues the good and chooses it in concrete actions. The goal of a virtuous life is to become like God.”²

It seems few would disagree with the notion that moral improvement through education and training is desirable. However, moral *enhancement*, a particular form of moral improvement, is potentially much more controversial. Moral enhancement differs from moral education in that it employs modern technology and scientific methods to directly alter the underlying biology or genetic information in a person with the aim to improve her morality³, rather than altering the human organism indirectly through cognitive processes⁴. Moral enhancement differs from other medical treatment in that its main aim is not to correct a pathological condition that causes moral transgressions⁵. Intoxication, head injuries and certain personality and mental disorders may cause someone to act immorally. To prevent, cure or treat these conditions with the aim to correct moral behavior is not considered an enhancement, but rather a treatment⁶. Thus we will be concerned with interventions that directly alter the biology or genetic information of a person with no pathology

that impacts on her moral behavior.⁷ As such our subject matter should be regarded as an instance of *human enhancement*.

Human enhancement is commonly defined as an attempt to temporarily or permanently overcome the limitations of the human body or to extend the capacities of that body over and above what is currently defined as “normal”. What constitutes as human enhancement is thus bound to a specific social context. Whereas it is normal for a Swedish 65-year old to be quite healthy, the same could not be said of a Congolese person of the same age. Thus, one could reasonably probe into the question of normality as well as what is defined as a disability, but we’ll accept this notion for the sake of the discussion. Whether or not human enhancement is permissible has been at the center of a decade-long debate between transhumanists and bioconservatives. Roughly speaking, transhumanists have tended to be in favor of most forms of human enhancement. Bioconservatives, on the other hand, have resisted most new or possible future enhancements, such as anti-ageing medicines or cognitive enhancers, while accepting the use of already existing ones, such as vaccines and coffee.

Over the last decade, the debate has matured and more sophisticated positions have emerged. A discussion of the merits and drawbacks and ethical complications of different enhancement techniques have outlined the complexities of the issues raised.⁸ However, while some transhumanists have become more diversified and moderate in their arguments and attitudes to human enhancement, many bioconservatives have remained staunchly opposed to most forms of enhancement. This paper will argue that bioconservatives should refine their position and arguments more carefully. If they want to be taken seriously, they cannot defend their skepticism of human enhancement on the distinction between enhancement and treatment, as eloquently argued by Frances Kamm⁹. This is not to say that some moderate variant of bioconservatism cannot be defended. Such bioconservatism makes careful assessment of different forms of enhancement and will accept or reject them on their specific merits or flaws.¹⁰ I will here make the case that sensible, moderate bioconservatives should accept moral enhancement, while retaining the possibility that other forms of enhancement might be objectionable.

The case for moral enhancement has been proposed by Julian Savulescu and Ingmar Persson. They highlight the existential risks associated with radical cognitive enhancement¹¹. We are living in an age of exploding intelligence. Genetic memory enhancement has been demonstrated in rats and mice, there are a wide variety of drugs that enhance memory, learning and slow down age-related cognitive decline. Drugs that improve working memory, wakefulness and self-control are entering the market. Brain machine Interfaces may also play part in increasing cognitive performance, by making human-computer interactions faster and more intuitive. By replacing or reinforcing mental processes with machines, the potential for rapid cognitive improvement seems unlimited. A deluge of data and the algorithms necessary to extract information from it, combined with the skills to understand and manipulate such information is rapidly changing the way we understand things at a fast rate.

These immense powers that rapidly improving information technology yields may play a crucial role in coping with global problems. However, these powers also create risks. The more accessible advanced technology gets, the easier it is for people with sinister intents to exploit it. It is

today quite possible to produce antibiotic resistant bacteria with a rudimentary lab, and sophisticated DNA synthesizers can produce viruses from chemical compounds. The access to both sophisticated labs and DNA synthesizers has vastly increased, as well as detailed information on how to manufacture and manipulate microbes. At the moment it remains difficult to weaponize infectious agents, but we should not count on this being the case in the foreseeable future. It is also evident that enhanced cognitive performance does not enhance moral behavior. As Savulescu and Persson argue, there is an asymmetry between the potential to harm and the potential to benefit.¹² One man could harm millions or even billions, given the right technology. As Bostrom argues,¹³ the prospect of humanity is quite good, were we to avoid an existential catastrophe the next few centuries. Imagine the possibility that trillions upon trillions of people inhabiting a large chunk of this galaxy in a few millennia, and the vast amounts of potential happiness that these people could generate. This prospect may be appealing for other than utilitarians. On any value theory, the expected loss of value in an existential catastrophe would be astronomical. Thus, as Bostrom argues, any reduction in existential risk has a very favorable cost benefit ratio compared with improvements for living people.

In order to mitigate the risk of an existential catastrophe, we therefore need to enhance our morality, as well as our intelligence. Whereas programs to enhance the morality of violent criminals may be applied as a part of their penalty, people with intents to create as much harm as possible must be corrected prior to any potential effort to carry out these plans. Note that improving ethics by traditional means is no less desirable. On the contrary, we ought to improve mankind's morality by any cost efficient mean possible.

What is moral enhancement?

Moral enhancement employs modern technology and scientific methods to alter the underlying biology or genetic information in a person with the aim to improve her morality. It could involve the targeted administration of certain drugs that affect the brain. It could also involve electrical stimulation of the central nervous system, or a combination of both. While these technologies only yield limited results at the moment, we should expect considerable progress in this area of research.¹⁴ In its infancy is the potential to affect moral behavior by altering our genetic composition and perhaps to some extent, our human and fallible nature. We may distinguish between the following strategies of moral enhancement.

1. Emotional enhancement
2. Behavioral enhancement
3. Empathy enhancement

I will argue that among these strategies, we ought to pursue the last one, and use other enhancements only in a very limited range of cases, if any. However some caveats are in order before we start our investigation: moral enhancement remains a truly difficult and elusive subject, since we know very little about how emotions, beliefs and other cognitive states affect moral behavior. Depending on our favored theory, different stable traits and dispositions may produce either immoral or moral behavior. People with strong feelings of empathy are reluctant to push the fat man in the famous "runaway trolley- case", something that act utilitarians would find

objectionable. And although people with anti-social personality disorder are unable to be motivated to act by other people's harm or distress, this does not imply that they are unable to act morally, and perhaps even more so, on a utilitarian view. However, we need not show that certain emotions or personality traits *always* lead to moral behavior. For our purposes, it may be sufficient to point to emotions that are *likely* to produce such effects in overall cases. If an intervention is likely *on average* to cause improved moral behavior, this may make it a plausible candidate, even if it will fail to improve everyone.

Moreover, most normative theories seem to disagree on what is the moral course of action only in relatively few situations. In fact most utilitarians would agree that acting in accordance with (some) deontologic rules or reasoning along these lines would in fact promote the greatest utility.¹⁵ Even so, the task of finding specific enhancements that would be uncontroversial for most major normative theories is daunting.

Emotional enhancement is the strategy favored by Thomas Douglas, Julian Savulescu and Ingmar Persson, the leading authors in favor of moral enhancement. Douglas defines moral enhancement as "*an enhancement that will expectably leave the enhanced person with morally better motives than she had previously.*"¹⁶ In particular, Douglas' notion of moral enhancement consists in reducing the force of some specific emotions, such as aggression and racism that are ethically problematic. Racism, a powerful emotion of fear and distrust towards people identified as "others" is certainly involved in many immoral acts. But surely there are many racists that never harm or offend anyone. And there is some evidence that racist emotions are somehow linked with social bonding and pro-social behavior towards one's own community.¹⁷ Aggression is likewise ambiguous. Aggression could certainly cause morally objectionable harm to people and property. However, some aggression may be necessary to excel in some venues in life, such as sports or other competitive enterprises. Moreover, punishment in everyday social human context seems to be a strong reinforcement of pro-social behavior. A reduction in aggression may adversely affect societal norms and produce less equitable and fair outcomes.¹⁸ Social emotions are quite complex, and the difficulties in assessing the consequences in tampering with them should lead us to be careful. Douglas and other proponents of emotional enhancement seem to underestimate the difficulties of disentangling the effects of specific emotions in our daily lives.

A quite different, and perhaps more simple, approach to moral enhancement is possible. This consists in restricting or promoting certain acts rather than enhancing or changing people's emotions and desires. I will call this "behavioral enhancement". A familiar instance of this instance of enhancement" is the administration of disulfiram to create an acute sensitivity to alcohol in order to prevent alcoholics from relapsing. Behavioral enhancement could also consist in classic conditioning as seen in the movie "A Clockwork Orange". Another (more complicated) theoretical possibility may consist in a neural implant that restricts acts of violence or the consumption of specific drugs.¹⁹ The implant could have sensors that monitor levels of certain chemicals, hormones or peptides in the brain or bloodstream, and could block the impending behavior either by releasing counteracting chemicals or by electrical stimuli. Another possibility could be an implant that tracks the position of the user by GPS, and restricts access (perhaps by causing severe nausea) to certain places that the user wishes but would ordinarily fail to avoid, such as casinos, bars or fast-food

chains. While being a more “heavy-handed” approach, this kind of moral enhancement is less intrusive in a sense. The person being enhanced retains his or her personality, while being unable to perform certain acts. However, it remains doubtful if this is to be considered as an enhancement at all. The intrusion of feeling compelled by electronic means would, for most people, feel like coercion and an infringement of personal freedom. Furthermore, it is unclear whether or not the person has been *morally* enhanced. One may argue that unless someone has a first order disposition to be moral, or to act in accordance with a certain moral principle, one is not truly moral, even if one has appropriate second order dispositions.

We may finally consider the enhancement of specific functions in the brain that seem to correlate well with moral behavior. Among these functions is empathy. I will follow Tania Singer & Claus Lamm’s definition

*We “empathize” with others when we have (1) an affective state (2) which is isomorphic to another person’s affective state, (3) which was elicited by observing or imagining another person’s affective state, and (4) when we know that the other person’s affective state is the source of our own affective state.*²⁰

If an individual is able to identify other people’s emotional states, but fails to be moved in an isomorphic manner by them, then this individual also fails to empathize. People suffering from antisocial personality disorders seem to show this inability. Although they may be excellent at understanding people around them, they utterly fail to feel the usual emotions that are normally associated with identifying someone’s emotional state. Among the many fascinating characteristics of human empathy is our ability to predict and recognize emotions that someone might have, and that these predictions may cause us to feel in certain ways. Thus I can imagine that were I to hit Paul with a hammer, his reaction would be distress. The mere thought causes me to feel uneasy. This ability often powerfully directs our actions and is a basis for many displays of altruism.

Empathy is related to but distinct from *emotional contagion*, the ability to instinctively feel what others are perceived to feel. Infants often display this ability, but lack other crucial aspects of empathy, namely being aware of the causal relation between their own emotions and other people’s emotions.²¹

On this definition, empathy is not an emotion, but rather an ability to identify and respond to emotions. This ability is, according to psychiatrist Simon Baron-Cohen, distributed in the population according to a normal distribution curve. Everyone is empathetic to a certain degree, with psychopaths and narcissistic personality types at zero. While interventions to adjust psychopaths to normality may not qualify as an enhancement²², improving someone’s empathy along the distribution line from “normal” to “better than normal” certainly qualifies as an enhancement.

Empathy – the world’s most valuable resource?

Simon Baron-Cohen describes in his book *Zero Degrees of Empathy* the mechanisms involved in the ability to empathize. These mechanisms are distributed among (at least) ten different parts of the brain that interact in complex ways to allow us to identify other people’s thoughts and emotions, to be moved by them in particular ways and to organize perceptual input in a way that allows us to clearly distinguish people from inanimate objects. While these neural systems are involved in many other cognitive functions, we may refer to these as the “empathy circuit”, Baron-Cohen suggests.

Our ability to empathize depends on a variety of different factors. Psychopath and borderline personality types for instance seem to be strongly correlated in people who were abused or neglected as children. However, twin studies clearly show that genes play an important role as well. In particular genes that affect the level of hormones produced may have very important effects, and seems to be a partial explanation why women are, on average, more empathetic than men, according to Simon-Cohen.

Empathy enhancement seems thus to be an ideal moral enhancement strategy, for a number of reasons. First, empathy is closely linked to pro-social behavior on a conceptual level. Although a definitive empirical demonstration of the causal role of empathy and pro-social behavior has yet to be done, there is consistent evidence of empathetic concern and pro-social behavior.^{23 24} Empathetic people act in accordance with what all major normative theories would consider moral acts in everyday cases. Empathetic people avoid harming others, are more willing to cooperate with strangers and are more willing to benefit others, for example.

Second, as Michael Slote argues,²⁵ empathetic people are not less rational, contrary to cultural stereotypes. Empathetic people do suffer more when seeing other suffer, this is true. While enhanced empathy may yield prudential costs, these are only negative from a self-interested point of view not from the viewpoint of other regarding rationality. A person who is less likely make others suffer, or to tolerate the suffering of others is, according to most moral theories, better off in a moral sense. Furthermore, being empathetic is also an asset from a prudential point of view. Being empathetic allows you to have more friends, more successful relationships and makes you better at casual interpersonal interaction.

Third, we seem to have a relatively good idea of how empathy works, compared to what we know about racism, sadism or other complex emotions and desires that might be plausible to alter. Some Selective Serotonin uptake Inhibitors (SSRI:s) seem to work pretty well in altering emotional responses.²⁶ Twin studies show that genetics contributions are significant in antisocial personality types.²⁷ Although no specific “empathy-gene” is likely to be found, genes that contribute to aspects crucial to empathy have been identified. A variation in the serotonin transporter gene (SLC 6A4) is associated with some increased fear and anxiety to facial expressions²⁸. Genes that regulate the receptors of the neuropeptides oxytocin and vasopressin seem to affect social behavior by altering brain function²⁹. Thus we have a reasonably good idea of how we may start enhancing empathy and how such an improvement may affect moral behavior.

Fourth, empathy enhancement avoids the heavy-handed approach of controlling behavior directly.

Empathy enhancement is different from other enhancements

The debate on human enhancement is heated, and whether or not human enhancement is permissible is a controversial issue. In its technical aspects empathy enhancement is similar to cognitive enhancement; in fact it may involve very similar drugs or implants. However, empathy enhancement is different in a morally relevant sense. Arguments against cognitive or other enhancements do not apply straightforwardly to empathy enhancement.

The most powerful argument against cognitive enhancement, I believe, is that an uneven implementation of cognitive enhancement programs may perpetuate the already appalling

inequalities in the world. Superior intelligence is a huge competitive advantage in modern economies, and if cognitive enhancers are prohibitively expensive the chances of climbing up the social ladder for poor people will be squeezed further. Cognitive enhancements brought about by genetic interventions that are passed on from generation to generation would aggravate matters further if not made available to common people. The prospect of creating a genetically superior cast and so enshrine inequality in our heritage is certainly of concern for anyone proposing cognitive enhancement while being opposed to social inequality. The empathetically enhanced may also benefit from having more friends, getting less trouble with the law and other social benefits. However, empathy enhancement is different from cognitive enhancement in that the main benefactors of empathy enhancement interventions are not primarily the persons so enhanced, but the community in which these persons live. Thus, the individual benefits from empathy enhancement should not be of concern for those of us who are preoccupied by social equality. We ought to remember that although being better able to respond adequately to the emotions of others may improve our social interactions; this does not necessarily mean that other social skills, such as the ability to small talk or the skill of perceiving social cues so important for most forms of etiquette, are likewise improved. These skills seem to show little or no correlation with the moral standards of people, and may be more significant as a social advantage. Thus, in comparison to cognitive enhancement, that yields a direct and significant advantage for the individual so enhanced, and only indirect advantage to others, empathy enhancements are mostly quite the opposite.

Another frequently raised objection rests on the notion that certain enhancements constitute a zero sum game. The typical enhancement to fall into this category is the use of steroids and other performance-enhancing drugs in sports. An athlete on steroids has a significant advantage, but should everyone or even most athletes take the same drugs, then no one would be better off. And since there are significant side-effects with these drugs, everyone would be worse off. Thus, there are good reasons to restrict the frivolous use of these hormones, since widespread use may only increase the average performance and bring no cumulative benefit. There are some aspects of cognitive enhancement that are similar. Part of the benefit of being more intelligent comes from being more intelligent than others, and this benefit will disappear if the intelligence enhancing drug is widely used. Empathy enhancement is, by reasons partly mentioned above, different. This kind of enhancement rather promotes moral behavior in those not enhanced. In a community where no one is afraid of violence, trust may be restored. If we could reasonably expect that strangers would be caring and empathetic to our plight, social bonds might be reinforced and pro-social acts become more prevalent. Even if this were not the case, it could be argued that empathy enhancement has an intrinsic quality to it that is not diminished by others being equally moral. The notion that being good makes my life go well, or that it is an intrinsic aspect of individual flourishing is indeed a strong one, embraced both by philosophers in the Aristotelian tradition such as Martha Nussbaum, as well as by communitarian philosophers, such as Michael Sandel. Although utilitarians deny the intrinsic worth of being a moral person, they should recognize that the instrumental value of empathy enhancement is not necessarily diminished by the wide accessibility to such treatment.

John Harris claims in his article "Moral Enhancement and Freedom" that moral enhancement may undermine human freedom and autonomy. He writes:

“The space between knowing the good and doing the good is a region entirely inhabited by freedom. Knowledge of the good is sufficiency to have stood, but freedom to fall is all. Without the freedom to fall, good cannot be a choice; and freedom disappears and along with it virtue. There is no virtue in doing what you must.” (pp.104)

This may certainly be the case for what I referred to as behavioral enhancement. Since this consists in blocking possible behavior, we are in effect limiting that person’s ability to lead a good life by virtue of choice. Alex is not made virtuous in “A Clockwork Orange”, and his freedom is seriously infringed. But as I have already concluded, behavioral enhancement is morally dubious on other grounds, and is not being proposed as a serious alternative. The enhancement of empathy evades Harris’ claims. We are empathetic to different degrees, and our level of empathy varies depending on the situation. Are more empathetic people less free than those who are less so? Certainly not. Empathy is ability; a lack of empathy is a serious disability. Empathetic people are more likely to be socially competent³⁰.

According to the Holy See, a virtue is not something that may be bestowed from outside, but something achieved by means of effort:

“The moral virtues are acquired by human effort. They are the fruit and seed of morally good acts; they dispose all the powers of the human being for communion with divine love.”

Not all bioconservatives adhere to the edicts of the Holy See, yet this passage points to an intuition that some may have, and that seems to be similar to the Aristotelian notion on how to acquire true virtue. On this view, moral enhancement consists in cheating and a person who is virtuous by means of enhancement is no more godlike than an ordinary sinner.³¹ Consider someone who wins a marathon by means of doping. We normally consider evidence of cheating to completely cancel the achievement that was bestowed to the person who cheated. Could moral enhancement be similarly pointless? Certainly a case could be made that the cheating- in sports analogy is inadequate. In sports, or other games, the rules *constitute* this activity. Without the rules the activity becomes pointless, so breaking the rules to win naturally undermines the credit the winner deserves.

But life is not a game, and being moral is no competition. My being morally excellent does not make it more difficult for you to excel too. The goodness of my intentions, dispositions or acts may depend on their consequences, their coherence or their general accordance with some moral principle. But their goodness does not seem to depend on how we acquired these intentions. In fact it is generally speaking very difficult to know how we acquire intentions or dispositions, and many of these we acquire from other means than pure effort and training. Some people are just kind because they were fortunate to be born that way. Others may have had the luck of having loving parents and supporting friends. Surely that does not make them less good.

Another related aspect of this objection concerns the importance of effort. An act is praiseworthy if it was preceded by effort and commitment to the proper conduct, some may argue.³² But this notion is very problematic. Imagine a person who is naturally endowed with an empathetic

nature and has grown up in loving and caring environment. For such a person virtue may come effortlessly. Should this person regret the lack of struggle and effort? Should this person envy a callous psychopath who struggles to not harm and violate others? Should we think less of the lucky? Perhaps our virtuous psychopath deserves more praise, but the fortunate saint is not to be looked down upon.

Imagine a possible surgical intervention that would eliminate empathy altogether, perhaps mimicking the tragic accident that changed Phineas Gage's life.³³ This intervention would make moral behavior not only challenging, but immensely difficult. If the struggle and effort constitutes moral worth, this is what we should opt for. Furthermore, imagine that new scientific evidence was made available that a certain diet may affect our behavior. Perhaps less meat and more vegetables has a pacifying effect on the mind. Would it really be cheating to adjust your diet to become more virtuous?

Concluding remarks

One may ask whether or not we ought to prioritize moral enhancement more than moral education or institutional reforms that could promote similar or superior outcomes. I believe this question is legitimate, but beside the point. We should arguable enhance the public's moral behavior by whatever mean is available to us, as long as it is safe and reasonably cost effective. Whether or not empathy enhancement would be efficient enough to merit widespread public subsidies remains to be seen. If that would be the case however, then I believe that we have good reasons to legalize and promote efforts to enhance empathy by means of human enhancement.

Human enhancement refers to a wide variety of procedures, and cannot be discarded with one bullet. Some enhancements are questionable, while other may be worthwhile pursuing. From this moderately skeptical position, some moral enhancement may be justified, even if other enhancements, such as cognitive enhancement, are not.

¹ <http://www.secularhumanism.org/index.php?section=main&page=declaration#morals>

² http://www.vatican.va/archive/ccc_css/archive/catechism/p3s1c1a7.htm

³ Of course any psychological change also affects the underlying physiognomy of the person so affected.

⁴ Some instances of cognitive behavior therapy would here qualify as "moral education".

⁵ Pathological cases might include patients with brain injury, brain tumors, and cases with severe deficiencies in critical neurotransmitters or people suffering from grave hormonal imbalances.

⁶ The distinction between treatment and enhancement has been forcefully challenged by Savulescu, Bostrom, Kamm and others. However, since bioconservatives emphasize this distinction, I will follow this (arguably common sense) view.

⁷ Whether or not personality disorders such as antisocial personality disorder or narcissistic personality disorder are pathologies is a matter of debate. I will leave this question open.

⁸ Julian Savulescu & Nick Bostrom (Ed) *Human Enhancement*, Oxford University Press, 2010

⁹ Frances M. Kamm "Is there a Problem With Enhancement?" *The American Journal of Bioethics* 5(3): 5-14, 2005

¹⁰ Larry Temkin seems to be a good example of a moderate and sophisticated bioconservative. See his article "Is Living Longer Living Better?" *Journal of Applied Philosophy*, Volume 25, Issue 3 pages 193-210 August 2008

¹¹ An existential disaster is defined as an event that would drastically and permanently curtail the potential of terrestrial intelligence. See *Global Catastrophic Risks*, Eds. Nick Bostrom & Milan Cirkovic (Oxford University Press, Oxford, 2008)

¹² Ingmar Persson & Julian Savulescu (2008). "The Perils of Cognitive Enhancement and the Urgent Imperative to Enhance the Moral Character of Humanity". *Journal of Applied Philosophy* 25 (3):162-177.

¹³ Nick Bostrom "Astronomical Waste" *Utilitas*

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