

Better decisions through enhancing decision-makers? Moral enhancement and liberal democracies

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HUTTUNEN, HENRI: Better decisions through enhancing decision-makers? Moral enhancement and liberal democracies

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In the beginning of the 21st century, humanity faces multiple unprecedented global dilemmas that defy easy solutions and call into question the ability of the liberal democracies to rise to answer them. At the same time, advancements in sciences and technology have made it possible for humans to shape their own biology like never before, sparking a discussion on the ethical permissibility of humans seeking to enhance themselves or their descendants. Set against this background, the purpose of this thesis is twofold. First, to give a general overview of the so-called human enhancement debate, analyzing arguments for and against enhancement interventions and weighing their merits and weaknesses. Second, to advance an argument that the introduction of a particular type of enhancement, moral enhancement, is desirable from the point of view of generating morally more responsible political decisions.

Keywords: human enhancement, moral enhancement, bioethics, political philosophy, democracy

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1. Introduction

In the 21st century, humanity faces a plethora of unprecedented dilemmas. Fueled by consumerism, climate change and global warming threaten to submerge coastal cities beneath the waves, cause widespread droughts and increase the frequency of natural disasters. Deteriorating environmental conditions force people to move towards the global north *en masse*, stoking questions about immigration, human rights and the limits of compassion. Automation and robotization promise to free humans from labor – and threaten to leave millions unemployed, putting societies and the economic system to the test and spreading ever wider the gulf between the haves and the have-nots. Due to these questions and a myriad of others, some have begun to ask if humans as a species are ill-equipped to face these problems, and if so, what could be done to arm them for the times to come?

The *human enhancement debate* is the ongoing discussion about making humans “better” in one way or another, usually proposed to be done through employing either the biomedical sciences or emerging technologies. Though still largely hypothetical, human enhancement has become one of the major talking points of applied ethics in the recent decades, interest in it constantly bolstered by developments in both science and society. The usage of prescription amphetamines by university students to boost their focus. Adopting genetic testing and embryo selection to avoid unwanted mutations in offspring. Employing CRISPR-Cas9 gene-editing to produce babies immune to the HI-virus. These are all real-world examples of the ways humans have meddled with their own nature in the recent years. The dream of becoming “better than well”, achieving unheard physical or mental performance, is at least as old as classical Greece and its stories of demigods. Many hope – and others fear – that with these advancements, that dream is finally within humanity’s reach.

Those that find cause for alarm in the aforementioned developments usually ground their reasoning in a certain view of human nature and capability. They fear we might think ourselves too clever, and in our rush to enhance ourselves accidentally do away with something valuable that was merely masquerading as a weakness. What if we discover how to stop aging and to live forever, only to find out that our mortality was the very thing that

made our lives meaningful? Another concern often raised is that human enhancement, should it become readily available, is bound to create more inequality in our already unjust societies. As betterment is something people crave and are willing to pay for, it would seem unlikely it will be available for everyone. This might create a society where the less well-off are not only poorer when it comes to wealth, but also underprivileged genetically. With time, humanity might develop in to two separate species – the limited humans of today and the superior post-humans of tomorrow.

The pressing global issues combined with worries that human enhancement might promote injustice have caused some proponents of the enhancement project to champion a certain type of enhancement: that of a *moral* kind. The basic argument here is that unlike in the case of increasing muscle strength or cognitive performance, a moral enhancement would not count as a competitive advantage for the individuals enhanced so. Rather, the benefits of moral enhancement would be reaped principally by the community around the enhanced. A morally enhanced individual would be less inclined to lie, cheat or cause the people around them harm for their own advantage. They could better keep their focus on long-term payoffs instead of seeking to gratify their immediate desires. Since many of the global issues of today are either caused or aggravated by human inability to undertake unpleasant but morally good projects, it seems like there could be much gained by investing in moral enhancement. Yet there are some who view even moral enhancement as questionable. They argue that even if the enhanced themselves might be unprejudiced and have everyone's best interests at heart, their inclusion to society might still disenfranchise the unenhanced in one way or another.

The purpose of this thesis is twofold. First, I am going to give an overview of the human enhancement debate in general, characterizing the arguments and positions commonly displayed by those for and against it. I will conclude this part by presenting my view on the current state of the debate. Second, I am going to take a closer look at human moral enhancement, and in doing so advance an argument that although in some cases moral enhancement can be problematic from the viewpoint equality, we still have strong incentives to pursue it in the name of generating morally better political decisions. Before tackling either of these parts, however, I am going to give a brief explanation of what I understand the term 'human enhancement' to mean.

2. What is human enhancement?

In enhancement literature, an ample amount of pages has been devoted to trying to define what human enhancement exactly is. This has more often than not taken the form of trying to find relevant criteria on how to know when some intervention is no longer within the scope of therapeutic interventions and crosses over into the domain of enhancement.

One example of a proposed solution to this question is the *beyond-species-maximum approach* (Gyngell & Selgelid 2016, p. 115-116), which holds that something should be considered an enhancement if it would raise the individual being enhanced above what was before humanly possible. This approach, however, suffers from being too narrow. Consider an individual who is physically very weak, barely able to lift a stack of heavy books off their desk. This person could be, through biomedical interventions, be empowered to be on par with history's greatest Olympic weightlifters, but according to the beyond-species-maximum approach this would still not count as an enhancement. After all, he is still within what we consider the limits of human performance. This seems to reflect quite poorly our understanding of what it means to enhance someone. Another problem for this view is that what we consider to be the limits of human capacity are in constant flux. In the world of professional sports, hardly a year goes by without somebody breaking one world record or another. This means that something could be considered an enhancement today, but it would cease to be an enhancement tomorrow should an unenhanced person be born with a special capacity for reaching new heights in one field or another. This makes basing any possible enhancement-related regulations on the idea of a species maximum a difficult one. A broader alternative conception of enhancement would be the *beyond-species-typical approach* (Gyngell & Selgelid 2016, p. 114-115), which, as the name implies, sets the bar for enhancement on providing humans with capacities that exceed those typically observed in the species. Now the physically weak person we previously made into a world-class weightlifter would definitely be counted amongst the enhanced. Still, this view is not without its problems either. Humans as a species have a wide spectrum of capabilities, and what is typical of these capabilities is influenced by a huge number of factors, such as age, sex, ethnicity, socio-economic status, and so on. It is typical for an old person to have more issues with their memory than a young person would have, and without taking this into account, we can't use species-typical categorizations effectively. If we do take all of the relevant factors into

account, however, we end up with a very individualistic view of enhancement, which does not bring us much closer to our goal of being able to easily define interventions as enhancements or otherwise.

These two examples are hopefully sufficient in highlighting how difficult it is to satisfyingly define the concept of enhancement. Instead of trying to produce an answer to the question, I will next endeavor to give a non-technical, common-sense explanation of the typical objective of enhancement interventions. Human societies are full of examples of people doing various things to boost their performance in one way or another. We are all aware that sleeping enough and eating both healthily and in sensible intervals increases our alertness and general well-being. Many people drink coffee or tea for the short-term boost to focus that the caffeine in them provides, and nootropics and smart drugs are also swiftly becoming more common. For example, prescription amphetamines, such as Adderall, are used to treat Attention Deficit Hyperactivity Disorder (ADHD), but healthy people not suffering from the disorder are also obtaining and using these drugs to increase their productivity. These relatively common performance enhancers, however, also have notable downsides. Their effects either don't last very long or they might have adverse side-effects, or perhaps maintaining their effects are in some ways too demanding for many people's tastes. Caffeine might get you through a late shift at work but then keep you up at night, and not all people have steady timetables that enable them to have a balanced sleep cycle. Producing these desired effects (and a myriad of other desired effects) without the downsides or the effort they sometimes require is the basic objective of human enhancement interventions. The hope is that as understanding of biology and technology grows, we could – through smart drugs, genetic engineering, technological aids or some combination of these – provide people with safe and efficient ways of giving them increased performance in the areas of their desire. It should not be understood, however, that the scope of human enhancement is limited to just providing safer and more effective alternatives to performance boosters we already have available. I have merely used them here as a way of communicating that even if human enhancement literacy can sometimes be likened to science fiction, enhancements do not have to be grand or society-altering by their nature. Sometimes enhancement can just mean providing people with pills that give them heightened focus with no adverse side effects.

3. The human enhancement debate

The traditional way to summarize the human enhancement debate is to present it as a back-and-forth between two opposed factions, *the transhumanists* and *the bioconservatives*, debating over the moral value of the so-called *therapy-enhancement distinction* or *dichotomy* (Bostrom & Roache 2008, p. 120). Simplified, this means the question of do interventions carried out for the purposes of enhancement differ morally from those carried out for the sake of merely maintaining or restoring health. Transhumanists are taken to unequivocally support every form of enhancement, whereas bioconservatives are expected to oppose it in all its forms, while at the same time still wanting to allow humans to use therapeutic interventions. The debate then boils down to the question whether the bioconservatives can show some relevant way in which the two forms of interventions differ from one another so that one could be viewed as morally permissible and the other as unacceptable (Bostrom & Roache 2008, p. 122). As noted in the last section, this question of defining enhancement is notoriously difficult. One of the classic problems is the categorization of vaccines, which are commonly viewed as therapeutic interventions promoting good health, but could just as easily also be described as an intervention aimed at *enhancing* the immune system (Ibid., p. 120).

This, of course, is a crude oversimplification of decades of academic discourse. In reality, there is wide variety of questions discussed in relation to the project of human enhancement, as well as a varied spectrum of stances between the most ardent supporters of enhancement and its harshest critics. Authors have approached human enhancement, for example, from the point of view of virtue ethics (Fröding 2013), Christian Transhumanism (Cole-Turner 2017) as well as questions pertaining to forgiveness and tolerance (Räikkä & Ahteensuu 2016). Some authors have suggested there are additional schools of thought situated between the extremes of transhumanism and bioconservatism, such as the in principle allowing but still cautious *bioliberals* (Roache & Savulescu 2016, p. 145) or *biomoderates* (Giubilini & Sanyal 2016, p. 2). Others have taken to using different names all together, such as using *conservationists* instead of bioconservatives in order to distance the debate from political liberal-conservative divides and to highlight the group's core agenda of conserving the current expression of human nature (Lilley 2013, p. 2). Some authors resist easy for-or-against categorization all together, such as those coming from the discipline of disability

studies, who take both the proponents and opponents of enhancement to task over explaining why any type of embodiment, enhanced or otherwise, is preferable to any other type of bodily existence (Rehmann-Sutter et al. 2014).

In the interest of not muddying the waters by using politically charged terms such as conservative and liberal, I am going to follow Alberto Giubilini and Sagar Sanyal (2015) in describing the different stances simply as ‘opponents of enhancement’ and ‘proponents of enhancement’. I will next paint a broad picture of how I understand these restrictive and permissive positions, after which I will look at the current state of the debate.

3.1 Opponents of human enhancement

It is difficult to present any sort of general overview of positions held by the opponents of human enhancement, mainly because while they all do oppose the enhancement project, most of them do so on very different grounds. Because of this, I think that the best way to effectively characterize the opponents is to go through some of the most common arguments they present.

The one common feature at least almost all of the opponents of enhancement share is the insistence on there being a meaningful moral difference between enhancement and therapy. The reason for this is quite clear: if there was no difference to be found, then in order to believably oppose enhancement interventions the opponents would also have to oppose common and highly beneficial medical interventions, the banning of which would lead to great human suffering. The different answers given to how and why therapy and enhancement differ from each other are numerous and varied. As I do not think there are any identifiable most popular or strongest arguments, I will not be listing them here. Some of them, however, will become evident as we next look at some of the most common arguments presented by the opponents.

One such argument is one concerning *human dignity*. Since the term resists simple definition, it is perhaps best understood as an equal moral value of human agents that stems from simply being a member of the human race. Simply put, the worry here is that if we start enhancing

humanity we might do something to undermine either the dignity of the enhanced or the dignity of those who, for one reason or another, are ‘left behind’ as unenhanced. Leon Kass has argued that if turning “a man into a cockroach” would obviously be dehumanizing, then perhaps we should consider that making a human “more than a man” might also be so (Kass 2003, p. 20). On the other hand, others have expressed fears of human enhancement creating a superior class of people who are not just better but also *morally more valuable* (Fukuyama 2003, p. 153-154). This would undermine our understanding of all human lives being of equal value, and could enable us to treat the unenhanced inhumanely. Closely tied in with this fear is the more familiar threat of increasing *socio-economic inequality*: human enhancement might be expensive and thus only available to well-off people, which would disenfranchise the poor even further¹. Why would anybody hire a person who gets tired and has to stay home sick from time to time if they have the option of employing an enhanced human with superior focus and health? In time, unenhanced but otherwise healthy people might become to be perceived as inferior, perhaps even as somehow disabled (Franssen 2014, p. 177).

Another often pointed out concern is that of humans “*playing God*”² – a charge which, despite the name, can quite easily be explained on secular terms. Unlike an omnipotent god, humans are not perfect and all-knowing, but instead prone to failure and overestimating their competence. Thus, there is a very real possibility that if we start meddling with something as complicated as human nature, we might in our folly break something important. This view has been proposed to tie in with a view of natural processes, such as evolution, being superior to artificial, human-created interventions (Harris 2007, p. 35). Viewed as such, attempts at tampering with natural processes could easily backfire as we fail to take into account their complex balance that has been achieved over eons of evolution, giving us reason not to try our hand at it in the first place. The “playing God” arguments can be further separated into two categories, *epistemological arguments* and *arguments from unacceptable risks*.

1. The epistemological variant of the “playing God” argument holds that since we have but limited knowledge of both ourselves and the future, we cannot be justified in

¹ This issue is not voiced only by the opponents of enhancement. For example, Nick Bostrom and Rebecca Roache, who number among the most well-known supporters of the human enhancement project, have also pointed out the same concern (Bostrom & Roache 2008, p. 14-15).

² It should be noted that the term “playing God” is more frequently used by the proponents of the enhancement to allude to certain arguments presented by the opponents’ than by the opponents themselves (e.g. Harris 2010; Coady 2010; Brock 2010).

claiming to know what would be an enhancement. Having more muscle mass is a burden in a society that does not value physical prowess, and increased longevity is only a blessing if living itself is pleasant. Thus in many cases, especially in the case of enhancing our descendants, the human enhancement project seems to presuppose that we can have credible estimates about future societies so that we can also claim to know which abilities will be beneficial to the people living in them (Rehmann-Sutter et al. 2014, p. 9). There also seems to be many scenarios where it is simply impossible to objectively value if something is an enhancement or not: would a child's life be better if they had a gene that made them a musical prodigy (Sparrow 2016, p. 131)?

2. While the argument from unacceptable risks has been presented in many forms, Normal Daniels has written perhaps the most efficient of these formulations. He writes:

“But if we are trying to improve on an otherwise normal trait, the risk of a bad outcome, even if small, outweigh the acceptable outcome of normality.”

(Daniels 2009, p. 38)

Here Daniels is saying that while we perhaps could indeed better ourselves in one way or another, being just an ordinary human is not terrible as it is. Since all interventions always carry at least some sort of risk, we should not take a gamble at doing needless interventions that we could do without. Daniels' argument also helps shed light on a possible stance on why enhancements are to be banned while therapeutic interventions should still be allowed for. Yes, therapeutic interventions might also entail risks, but since without resorting to them humans might be permanently stuck in an unacceptable state of abnormalcy³, those risks are justified.

The final commonly featured argument is that of *diminishing autonomy*, the most well-known version of which has been presented by Jürgen Habermas (2003). Here, the worry is that the people being enhanced are in one way or another going to be subjugated to the will of the enhancers – the enhanced humans becoming instruments of someone else's design

³ The relevance of normalcy has been called into question by John Harris. He argues that as a concept that is both context-sensitive and historically prone to change, normalcy can hold no moral value when it comes to the human enhancement debate (Harris 2007, p. 54).

(Habermas 2003, p. 53-54). This worry is most salient when discussing the topic of enhancing children in one way or another. Taking a page from Habermas, Robert Sparrow has presented this view (Sparrow 2013, p. 26) as follows. When educating a small child, the child nevertheless has a possibility of calling the things they are being taught into question. Then, the burden of justifying the reasoning and norms behind their teaching is on the teacher, and the child can choose to accept their reasoning or not. There could even be a possibility of the child asking a question of such profound insight that it forces the teacher to re-evaluate their own argument or to change their mind on the subject. By comparison, biomedical interventions such as enhancements, do not afford the people being enhanced this sort of possibility. They work on the basis of a subject (the enhancer) reshaping an object (the person being enhanced). This worry is most often raised when discussing moral enhancements, but it can be as easily evoked when the discussion turns to manipulating the genes of unborn children to select for traits viewed as desirable by the parents-to-be.

Summing up, the opponents of the human enhancement think that the project is fraught with risks, some of them dire enough to call for policies on restricting or outright prohibiting research into it. Humans are not wise or knowledgeable enough to know what to enhance and how, and even if they somehow got it right, the enhancement interventions might still cause suffering or have unacceptable outcomes, such as diminishing of autonomy or a creation of a new race of post-humans. The opponents still think that therapeutic interventions are justified because even if the line between therapy and enhancement can be vague, the therapeutic interventions humans have and are using today do not have these same issues. Making a sick person healthy ensures that they will not be left behind and have a fair chance at leading a good life; making a healthy person better than well, on the other hand, enables them to ascend above others.

3.2 Proponents of human enhancement

While the proponents of enhancement have a lot in common, such as obviously displaying generally permissible attitudes towards enhancement interventions and being in most cases unmoved by the opposition's arguments, they are also far from a homogenous group. Some argue in favor of enhancement on the grounds of morphological freedom, a person's right to

do what they want with their own body (Sandberg 2003), while others take enhancing ourselves or our children not only to be a right, but also a moral obligation (Savulescu 2001; Savulescu & Kahane 2009). Authors who are generally in favor of enhancing humanity can also take stances that are more critical when it comes to specific forms of enhancement. John Harris, a stalwart supporter of cognitive enhancement, has argued specifically against moral enhancement (Harris 2010) based on the threat he sees it pose to autonomy. Nicholas Agar, on the other hand, has expressed a stance of supporting enhancement only within certain limits. According to Agar, we should not *radically enhance* humanity such as to raise human capabilities beyond the current norms, but rather stick to *moderate* levels of enhancement in order not to endanger the current human identity (Agar 2013). As is evident from these varied stances, it is not simple to generalize the position of the proponents of human enhancements. Still, I am going to try to lay out some core ideas that at least most of them could accept.

First off, the proponents generally subscribe to a welfarist conception of medicine. According to this view, the goal of medicine is not just to cure disease, but to increase human wellbeing in general, which is also the goal of human enhancement (Savulescu, Sandberg & Kahane 2011, p. 8). Thus, traditional therapeutic interventions and enhancement interventions should not be taken to be separate things, but rather facets of the same discipline. Continuing this mode of thinking, the proponents also often take many other non-medical and mundane interventions that improve human performance to be similarly difficult (and pointless) to separate from enhancement interventions (Bostrom & Roache 2009, p. 1). Examples of this include the already mentioned drinking of coffee to boost alertness, and even partaking in public education for varied cognitive improvements from memory to logical thinking.

Second, the proponents predominantly view that the wide range and variety of abilities and capacities already displayed by the different members of the human race means that moral status (or perhaps “human dignity” to which the opponents of enhancement sometimes refer to) cannot be grounded in such abilities or capacities (Bostrom & Roache 2008, p. 143). As an example, consider the following. Throughout history, rationality and critical thinking have been proposed as abilities that are essentially human. Despite this, we do not usually take particularly witless humans to be of lesser moral value than those humans whose cognitive capabilities are unusually high. At the very least, we would not ordinarily consider sacrificing their wellbeing for the wellbeing of more rational or critically minded people to be just.

Third, proponents express doubts that some of the resistance against the enhancement project consists of a form of *status quo bias* (Bostrom & Ord 2004), a preference for maintaining things as they are currently, even when the proposed change has strong evidence to be for the better. They point to historical evidence, such as the initial aversion towards now common interventions like oral contraceptives (Bostrom & Roache 2009, p. 5), to suggest that the opposition of enhancements comes from an emotional place and actually stems more from enhancements being *novel* than from being problematic.

Fourth, the proponents usually contend that there are at least some types of enhancements that are not valuable solely on the basis of providing *positional advantage*. When a person holds positional advantage, it means that they have advantage in relation to somebody else. Thus, if something only holds positional value, it means that the thing is valuable only insofar as it grants the person who has it a competitive advantage against somebody or something. As an example, if we enhance a person to be able to eat five times as much food as they are now capable of ingesting, it probably gives a huge positional advantage to a professional competitive eater, but would probably be of no value if the sport of competitive eating did not exist. If enhancements were to have only positional value, it would make them hard to defend for two reasons. First, because then enhancement would probably *only* serve to widen the gulf between the people with ample resources (and thus in all probability a better opportunity to enhance themselves) and those without them (Sandel 2004). Second, because then the value of enhancement would disappear if we enhanced everybody or at least most of the people competing with each other (Bostrom & Roache 2008, p. 130). Everybody's newly gained positional advantage would be nullified, and we would have spent a lot of time, resources and effort on the enhancement project for nothing. The proponents of enhancement, however, argue that they have identified a number of enhancements that would also have value not based on positional advantage. The most common examples are enhancements to health and intelligence⁴ (Bostrom & Roache 2008), which are thought to be valuable because they increase the enhanced person's chances of living a good life through fostering general well-being (health) and granting a greater capacity to decide what to do with their lives (intelligence; I will elaborate on this shortly). However, even if this is so, it still does not remove the fact that people enhanced with superior cognitive capacities would be at a

⁴ And moral enhancement, but I have omitted mentioning it here because it is to be discussed in greater detail later.

competitive advantage against the unenhanced, even if this would not be the enhancement's only or even primary source of value.

Finally, the proponents of enhancement maintain that at least some types of enhancements would not undermine the autonomy of the enhanced. Instead, the proponents have argued that human enhancement could even promote autonomy in place of curbing it (Savulescu & Kahane 2009, p. 282). Here, I am again going to use enhancements to intelligence as an example. Having a high intelligence can be seen as promoting autonomy, since high intelligence (or at least a high level of *certain kind of* intelligence) is required to do many things in life one could aspire for, like become an expert on theoretical physics. On the other hand, there are no aspirations the realization of which would require being of lower intelligence. Thus, improving someone's intelligence does not 'close any doors' on their choices, so to speak. If this is true, then a person with enhanced intelligence could have a wider variety of options when it comes to deciding what to do with their life. In this light, it would be hard to argue that the people who made them more intelligent decided their destiny for them.

To sum this all up, the proponents of human enhancement generally view at least that enhancement has the same goal as medicine in general – the improvement of human wellbeing – and hold that some types of enhancements would not undermine the equal moral value of individuals or threaten their autonomy. Instead, these enhancements would be valuable because they have the capacity to make human lives better. They also express doubts that resistance to the enhancement project stems more from the fact that the enhancement inventions suggested are novel, not from problems in the interventions themselves.

Note that this description of the proponents' beliefs is intended to act only as a baseline – there are many supporters of human enhancement who would go well beyond what I have said here. For example, some could suggest that enhancement is also valuable because it benefits the whole of society. Even if this were the case, I would still take them to accept that at least part of the overall value of enhancements comes from also benefitting the enhanced themselves.

3.3 State of the debate

While it should not be said that the discussion concerning human enhancement has stagnated, some major discussion points have remained largely unchanged for at least a decade. The key issue of whether human enhancement should be seen as being outside the scope of medicine or not, in particular, has seen little notable developments. The proponents have maintained their position of holding it pointless to try to separate enhancement and therapy from each other, and the opponents have been unable to present a compelling argument for why it should be, or how it could be, done. Most of the potential explanations, such as alluding to what is typical for the human species and drawing a line for the goals of medicine there, must resort to employing some type of concept of normalcy. What is typical or “normal” for humans has repeatedly changed throughout the history of the species in response to developments in the environment, living conditions, culture, and science. Any explanation trying to make use of the normative value of the current set of typical capacities a human might possess has to be able to explain how we can be sure that how we are right now is good⁵, and also why it is still acceptable for these trait to change in the future as long as the reason for that change is not human enhancement. After all, it is unlikely that we will cease to change in response to our environment even if we abandoned the human enhancement project, and many of these species-shaping changes have their origins in human actions, not in non-artificial nature.

At the same time, the proponents have had to concede that when a new technology, such as human enhancement, is brought to a society with existing inequalities, its benefits are not likely going to be distributed evenly. The most common defense against this charge has been to justify the potential increase in inequality by alluding to the great benefits that could be reaped by everyone, such as scientific breakthroughs that the cognitively enhanced could provide the society with (Bostrom & Roache 2008, p. 15). Also of note is the argument that enhancement could be provided to those without means through governmental subsidiaries, as at least most liberal democracies do with basic education (Bostrom 2003, p. 500; Mehlman 2009; Veit 2018, p. 88). However, the fact remains that the potential societal benefits of the enhancement project are purely hypothetical. We simply cannot know if building a cognitive

⁵ That is, at least if we agree that most humans are today in many ways better off than they were a hundred years ago.

enhancement clinic in every town will actually increase the number of scientific breakthroughs or not, because scientific breakthroughs might largely depend on factors other than the researchers being as smart as possible. It is, however, much easier to envision people with superior focus or memory being able to gain entrance to higher education and achieve success in their occupational life more effectively than their unenhanced peers.

Outside the charge just laid out, it is hard to find the other arguments presented by the opponents of enhancement very convincing – at least when the scope of enhancement remains within certain limits. If we do not enhance anybody against their will as well as restrict ourselves to types of enhancement that can be argued not to be detrimental to autonomy and to be beneficial to general well-being, then many of the arguments presented by the opposition lose their edge. It is difficult to see how someone could be said to have been treated merely as a means to an end when their cognitive capacities have been improved or they have been made immune to a dangerous disease. Rather, this would seem like empowering them. From this point of view, the concerns raised in the epistemological variant of the “playing God” argument seem unlikely as well. It is hard to imagine a plausible future society where being more intelligent or healthier would be a bad thing.

What about the autonomy of the unenhanced people? If we introduced enhanced humans into the society, they could, in time, come to view the unenhanced people as somehow defective (Franssen 2014, p. 177). From this premise, then, it could be argued that the enhanced humans could then view it as their moral duty to start enhancing the unenhanced even against their will, for their own good. This scenario, should it come to pass, would naturally infringe upon the autonomy of the unenhanced. I will argue, however, that there is no evidence to support that this would be likely. In contemporary society, vaccines have widespread approval and many view getting vaccinated as a moral duty due to it proving effective herd immunity only if the percentage of population who have been vaccinated is high enough. Still, there are many people who do not want to take vaccines for numerous reasons, ranging from fear of side effects to distrust in the medical community. Yet, at least for the most part of the Western world, people are not forced to vaccinate themselves or their children. It would be strange to think that this would be different with, say, cognitive enhancement – after all, people choosing to stay cognitively unenhanced would not directly heighten other people’s chances of contracting potentially deadly diseases.

In conclusion, what I take to be the two greatest challenges to the human enhancement project are what Alberto Giubilini and Sagar Sanyal (2016) have described as the *egalitarian concerns* and the *utilitarian concerns*. The egalitarian concerns we have already discussed: these have to do with the fear that introducing human enhancement into societies would lead to increased inequality. Perhaps human enhancement is only available for the wealthy, and this would enable them to outcompete the poor on the job market. Utilitarian concerns, on the other hand, we have not yet touched upon, and they have to do with diminishing global well-being. The worry here is that the human enhancement project could drain resources away from places where they could make a bigger positive impact (Giubilini & Sanyal 2016, p. 14). Enhancing people's cognitive capacities might generally be a morally good thing, but if the money used towards researching and producing cognitive enhancement interventions would be used to produce affordable medicine for the poor instead, the global net-wellbeing would surely see a much larger increase.

I will tackle both concerns later when I argue my case for moral enhancement. Before I do that, it is important to define what moral enhancement exactly is, as well as what is at stake.

4. Moral enhancement

What are human moral enhancements? The question seems simple: they are, of course, enhancements that make humans more moral. This answer, however, begs the question of what "being more moral" entails. There are, after all, multiple competing ethical doctrines. A utilitarian might be happy if we created an advanced computer chip which, when attached to a person's brain, ensured that they would never act so as to cause the overall wellbeing in the world to decrease. However, many other doctrines hold that it is not enough that our actions cause good – they must also be done for the right reasons. Indeed, someone following Kant's categorical imperative would accept that we can imagine a situation in which we must do something that causes harm in order to uphold some universal moral law. Lying is always wrong, they might say, even if lying would in certain situations protect people from pain and heartache.

I will base my view of moral enhancement on the definition given by Alfred Archer, an opponent of moral enhancement, and the writings of Ingmar Persson and Julian Savulescu, both of whom number among its proponents. Archer writes:

“For my purposes then, I will assume that a moral enhancement is something that makes the subject of the enhancement more likely to perform morally good acts for the right reasons.”

(Archer 2016, p. 501)

To present my view fully, we must now combine this with another quote, this time from Savulescu and Persson:

“Cognitive bioenhancement does not give knowledge—it requires effort and learning. Moral bioenhancement will not by itself produce moral behaviour. It requires effort and learning.

But it may make it easier and more likely.”

(Savulescu & Persson 2012, p. 412)

So, much like cognitive enhancement would provide the enhanced with certain heightened capacities (e.g. superior focus or memory) that help with the process of learning, moral enhancement would provide the enhanced with heightened capacities that help with following moral guidelines. As an example, consider the following case. A person has diligently studied the impact of meat consumption on the environment, and concluded that eating meat is morally wrong based on it contributing to environmental destruction more than a vegetarian diet. Following this diet is hard for them, however, as they like the taste of meat and crave for it regularly. One day they are visiting a shop and see a particularly delicious-looking steak. They cannot help themselves and buy it, later cooking and eating it with delight. However, afterwards, they feel bad about it, and wish they had not done it – they feel guilty for not being able to resist their impulses and thus doing something they think is morally wrong.

Now, consider the Archer quotation presented earlier. If we could give this meat-craving person a drug that would afford them a higher level of impulse control, they could very well have resisted their urge to eat meat. Even under the influence of this drug, they would still be acting for the right reasons. Their decision to refrain from eating meat comes from their diligent research into the environmental impact of meat consumption, so the basis of their decision is justified. I will assume everyone to agree that wanting to do their part in the fight

against climate change is morally commendable. The impulse control drug thus would have made the person more likely to perform morally good acts, for reasons they hold right. This is a crucial point to understand. When discussing moral enhancements, we are not going to be discussing pills that will teach people what is good – that will still be the domain of traditional moral education. Moral enhancement simply means giving people tools to better follow their moral code, much like cognitive enhancement will enable you to focus in your studies better but will not, by itself, teach you anything at all.

The reason why this point is so important is because perhaps more so than any other type of enhancement, moral enhancement is often under attack based on accusations of undermining autonomy. John Harris, for example, has argued that autonomy requires the “freedom to fall”, the possibility of doing wrong, and that moral enhancement strips enhanced humans of that freedom (Harris 2010, p. 103, 110). In the light of the previous example, it is easy to see how moral enhancement could be viewed as promoting autonomy instead. Moral enhancement, at least the sort of moral enhancement commonly proposed, does not provide anybody with new beliefs or morals. If a person wants to refrain from eating meat but can’t help themselves due to weakness of will, it would seem that their autonomy is enhanced, not undermined, if they are given a drug that helps them follow through with actions they consider morally righteous. It also does not make sense to think that simply because the person is more moral and thus less likely to commit moral violations they would also be less autonomous. After all, as Savulescu and Persson have noted before, we do not think that “garden-variety” unenhanced virtuous people are in any meaningful way less autonomous than people who are morally corrupt (Savulescu & Persson 2012, p. 409). There is a caveat to all this, however. If people are forced against their will to morally enhance themselves, then Harris’ argument holds more sway. Some people might want to remain morally unenhanced for their own reasons, and I would grant them this choice.

A definitive list of capacities that, when reduced or increased, would count as moral enhancements, is hard to produce. There are some notable candidates, however. Impulse control has already been mentioned. It is hard to imagine a likely scenario where having a worse impulse control could be a betterment. Savulescu and Person have pointed to a scenario where enhanced impulse control could help a Nazi soldier better resist their impulses of helping those suffering under their regime (Savulescu & Persson 2012, p. 411). However, since I see traditional moral education and moral enhancement working in tandem, I would

rather place the blame in this sort of scenario at the feet of a faulty moral code. It could even be argued that the Nazi, despite taking the impulse control drug, was not “morally enhanced”, as he was presumably not acting for the right reasons. Other notable candidates for moral enhancement are interventions that decrease racial aversion and violent aggression (Douglas 2008), as well as interventions that increase capacity for altruism and co-operation (Savulescu & Persson 2012, p. 410-411). In fact, in response to their Nazi scenario, Savulescu and Persson have noted that enhancing these other positive moral traits could help counter this sort of misuses, since a Nazi with enhanced altruism (or aversion to violent aggression) would probably not use their enhanced capacity for impulse control in service of oppression (Savulescu & Persson 2012, p. 411).

There are many promising studies on how some of these desired changes could be produced biomedically. However, as the other authors have already made detailed reports on the subject, I will simply refer you to read those instead of repeating them here (Persson & Savulescu 2012, p. 118-122; Savulescu & Persson 2012, p. 400-405; Archer 2016, p. 500). What is important in these studies is that since biomedical interventions seemingly can affect our morals (even if we cannot control their effects very well yet), that means that morals are, at least partially, biological. If something has a biological component, then with enough research and studying, we might learn to influence it with some accuracy – as we are currently doing with using Selective Serotonin Reuptake Inhibitors (SSRIs) to treat depression.

4.1 The case for moral enhancement

Now that I have laid out what moral enhancement is, the next question to be answered is why is pursuing it of importance. It is nice to be surrounded by morally good people, sure, but why should research be focused on moral enhancement instead of, say, cognitive enhancement? Ingmar Persson and Julian Savulescu have in their book “Unfit for the Future: The Need for Moral Enhancement” (2012) and in an follow-up article (Savulescu & Persson 2012) argued a case for the urgent need of morally enhancing the human species in the name of preventing great catastrophes and large-scale suffering. They base this argument on a

certain view of human nature and the current political system, which I will now present here in a condensed form.

Persson and Savulescu argue that common human morality is in many ways flawed. According to them, humans think that omitting to prevent harm is less morally reprehensible than causing harm (Persson & Savulescu 2012, p. 22-24), and that humans are also biased towards events that are going to happen nearer in the future and discount things that are going to be taking place later on (Persson & Savulescu 2012, p. 27-28). In addition, humans are egocentric in the sense that we are mainly interested in events that happen near us (Persson & Savulescu 2012, p. 28-29) and possess only very limited capacity for altruism and empathy towards strangers (Persson & Savulescu 2012, p. 38). Allow me to give an example of all this. When humans living in Western societies take part in consumeristic behavior that exploits the people producing goods in poorer countries, they feel very little responsibility, since the problem is not their singular purchase of questionably produced goods but the vast system of exploitation that millions participate in. In this way, their own share of the blame becomes emotionally diluted in this sea of shared responsibility (Persson & Savulescu 2012, p. 24-25). At the same time, when people in well-off societies read news about the labor conditions in sweatshops producing brand-name sneakers for them to buy, they feel less bad than they would if the shop was operating in the neighboring town, staffed by people they could easier identify with. Humans also might know that their behavior is, in the long run, destructive to the state of the environment and perhaps the future of the whole species. However, since the bulk of those negative consequences are going to manifest themselves somewhere far into the future, and doing something about the situation would require humans to deny themselves pleasure right now, they are less inclined to change their habits, even if the long-term effects of their actions would be catastrophic.

Persson and Savulescu argue that these moral shortcomings are the result of our psychological evolution, which for the most part of our species existence took place in small, tightly knit communities with only very limited technology (Savulescu & Persson 2012, p. 400). Humans living in these conditions were primarily concerned with the short-term survival of their own little community, surviving into the next week so to say, and thus had ample reason to distrust strangers and harvest for as much food as they could get whenever it was available. Their primitive technology could be used to shape only their closest surroundings, and even then, probably not to a great degree. Persson and Savulescu continue

that even if the human species has, through the use of technologies provided to them by science, gained unprecedented power and reach during the span of the last few hundred years, the human moral psychology is still very close to the way it was all those thousands of years ago (Savulescu & Persson 2012, p. 400). This explains why even if we can affect the lives of people on the other side of the world to a great degree, we still struggle to adequately feel the moral impact of our decisions. To Savulescu and Persson, humans are moral cave dwellers with internet. This is a recipe for disaster for multiple reasons. First, with advanced technology within the reach of many humans, a single bad individual could create a weapon of mass destruction and destroy a city of millions, causing terrible suffering (Savulescu & Persson 2012, p. 400). Second, in our lack of foresight, we are rapidly destroying our own environment (Ibid.). This could lead to devastating wars over dwindling resources as well as the end of human civilization as we know it. Both the threat of weapons of mass destruction and the threat of environmental degradation needs to be taken seriously, because, according to Persson and Savulescu, either one of these could lead to what they call the *ultimate harm* (Persson & Savulescu 2012, p. 46). The ultimate harm, if it came to pass, would mean all life worth living being extinguished from earth, thus causing unmeasurable harm. As such, we have a good reason to take whatever actions necessary to change our course.

Persson and Savulescu are skeptical, however, that the contemporary liberal democracies are up to the task ahead. They refer (Persson & Savulescu 2012, p. 74-79) to a study by Cass Sunstein, which found that the average American citizen holds the life of an American person 2000 times as important as the life of a person living in a poor country (Sunstein 2007, p. 44). Sunstein also reports that 52% of Americans would not support the Kyoto Protocol for greenhouse gas reduction if it would cost an average American family 50 dollars per month or more. This number dropped further to just 11% if the cost was 100 dollars or more. These findings by Sunstein are evidence that, at least back in 2007, the American public was not willing to sacrifice their own wellbeing to fight the climate change. With the US initiating withdrawal from the Paris Agreement on climate change mitigation in 2017, it is hard to believe that the situation would have vastly improved. Also, as the effects of climate change will probably hit the poorer countries in Africa and South-East Asia first and harder, it is unlikely that these attitudes will change before it is too late to stop the process.

This unwillingness displayed by the American citizens to sacrifice a moderate part of their wellbeing to help with a global crisis means, according to Persson and Savulescu, that any

politician committing to solving these issues would be potentially committing a political suicide (Persson & Savulescu 2012, p. 80). Creating effective measures to combat global threats such as the one climate change presents require policies that are in power for decades. Politicians hardly have incentives to jeopardize their whole careers by championing unpopular causes if it just means they will be voted out in the next election and the policies they created will be dismantled by the people replacing them. Politicians are, after all, humans too, and the worst effects of climate change will come after their career is already over, or they could even be already dead by then. (Persson & Savulescu 2012, p. 80.) Another challenge for liberal democracies is that global issues require global solutions, and thus there is no reason for a country to limit its actions or to spend its resources if they have no guarantees that the other nations will do the same. Otherwise, they would just be weakening their position on the global market for nothing (Persson & Savulescu 2012, p. 81-82).

This pessimistic view of human nature, the future and the capability of liberal democracies has led Savulescu and Persson to propose moral enhancement as a solution (Savulescu & Persson 2012, p. 400). Humans need to be enabled to rise above their moral shortcomings and to take responsibility for their actions. The limits of altruism must be extended to encompass both the global humanity as well as the as-of-yet unborn future generations. If large-scale moral enhancement programs could be established, the citizens of liberal democracies could be made to feel the weight of the moral responsibility bestowed upon them by the power of their planet-altering technologies. In the light of this new-found moral insight, they would vote more responsibly, for morally good politicians who would then be responsible for a morally good electorate. If this program had global success, these politicians could then count on the co-operation and moral integrity of their counterparts in other countries. Together, they could enable policies that would take responsibility for the global poor, curb rampant consumerism and promote new greener technologies in order to avert the worst effects of climate change. As a bonus, the morally enhanced citizens would also not create their own weapons of mass destruction and use them to level cities or destroy the planet⁶.

⁶ As a side note, Persson and Savulescu do not believe that moral enhancement can stop all the potential terrorists - psychopaths, for example, would probably not benefit from moral enhancement. This has led them to propose restricting freedom of press (to stop distribution of weapon schematics) and the right to privacy (to better monitor people suspect of being potential terrorists) (Persson & Savulescu 2012, p. 124-125).

Persson and Savulescu have naturally received criticism for their theory. John Harris (2011) has argued that moral enhancement would undermine the autonomy of the enhanced, while Rob Sparrow (2014) has proposed that a moral enhancement that does not make the moral reasons behind the acts more noble is not actually a moral enhancement at all. Alfred Archer (2016), on the other hand, has expressed worries that some people might have reasonable objections to being enhanced, and these people might be disenfranchised in a society where they had to coexist with the morally enhanced. Harris' and Sparrow's objections we have largely already dealt with in the last section. Archer's objection will become relevant in the next section.

5. Better decisions through enhancing decision-makers

I will now proceed to present a modified defense of moral enhancement based on the foundations laid by Persson and Savulescu. I think that Persson and Savulescu are correct in their assessment of human moral shortcomings and the effects these have on our liberal democracies. Unlike them, however, I would be hesitant to propose large-scale moral enhancement programs as the solution, mainly because of issues of feasibility. Thus, I move to argue that introducing moral enhancement to societies would be beneficial for them even if the vast majority of people would remain unenhanced. The point of my argument is not to suggest that it would not be good to have as many morally enhanced people as possible, but just to state that this is not necessary in order for moral enhancement to be advisable. I argue that creating moral enhancement interventions and allowing their use will lead, by itself, to the election of morally enhanced decision makers, and through them, morally better decisions.

The way I see Persson's and Savulescu's argument, the reason for their endorsement of creating a morally enhanced citizenry is to first enable the election of morally enhanced politicians and then to ensure they stay in power. Common citizens, no matter how moral, can only do so much, and while it is commendable to recycle and to be a conscious consumer, large-scale problems demand centralized solutions. Getting a wide-scale moral enhancement program established in multiple countries is, to put it mildly, a titanic political endeavor. It would require the same morally unenhanced politicians who are failing to address climate

change adequately to divert considerable resources into the matter, and it would also require the citizens to want to morally enhance themselves. The other option would naturally be to have the political leaders force moral enhancement on everyone, but in societies where hugely beneficial and widely accepted vaccines are not mandatory, I find this highly improbable. It would also be strange that the same politicians who fear backlash from increasing taxes to combat climate change would not hold their hand from enforcing enhancement interventions on the population. Thus, I find it unlikely we will have a largely morally enhanced population in time to combat climate change, even if the actual moral enhancement interventions were available very soon. This does not mean, however, that we could not still have morally enhanced political leaders.

It is much more likely – at least in the short term – that societies will have only some morally enhanced people in them rather than most of the population being enhanced. My argument is that in this scenario, the problem of positional advantage raised in section 3.2 could work for the benefit of the society by giving the morally enhanced members of the population a competitive advantage when applying for public offices. When citizens vote in elections, they cast their votes based on multiple factors: what party the candidate represents, what values they have, what kind of policies they propose, is their personality appealing, and so on. Many personality traits commonly thought to be valuable and positive are *moral traits*. These include, for example, honesty, good-heartedness, fairness and integrity. All of these moral traits could be enhanced through suitable moral enhancements. Alfred Archer has argued that moral enhancements would disenfranchise the unenhanced because people would probably prefer to have morally enhanced persons as their partners, friends and employees due to their reliability (Archer 2016, p. 505). It is not hard to imagine people preferring an enhanced politician for the very same reasons. Since the thought is quite intuitive, it is not a stretch to think that individuals with political ambitions would seek to enhance themselves morally to give them a competitive edge in the elections. Following this line of thinking, it is not necessary to endeavor to bring moral enhancement to everyone. All that needs to happen is for it to be available.

5.1 Possible criticism

First off, let us look at the egalitarian concerns raised in the section 3.3. If my argument holds true, then there is a quite clear danger of increasing inequality. If moral enhancement interventions were expensive, then perhaps only the very wealthy could afford them. If citizens would then strongly prefer to vote for the morally enhanced, it could lead to a society where only the wealthy would have a fair chance of being elected. Most democratic elections already have many problems similar to this. People with wealth can use it to bolster their election campaigns, and celebrity candidates can leverage their fame to gain a platform for their ideas. These problems naturally do not grant a license to make things even worse. There are positive aspects to be found, however. Morally enhanced individuals, once elected, could work towards bringing moral enhancement more readily available to the rest of the citizens. Giving the powerful and the wealthy incentives to morally enhance themselves could also have a wide range of positive effects on the society, and having morally responsible lawmakers could help make the society as a whole more equal. This could balance out the initial inequality possibly caused by moral enhancement.

Next, the utilitarian concerns. It is probably true that in the short term more global wellbeing could be achieved by funneling all the resources directed at moral enhancement into helping the poor and the needy. However, since a morally responsible political leadership is needed to combat climate change and thus avert the ultimate harm, an unmeasurable amount of wellbeing could be lost by not investing in moral enhancement⁷. Morally enhanced political leadership is also more likely to take a more responsible stance towards the poorer countries of the world and provide more assistance than the current governments of affluent nations are doing.

There is always the possibility that citizens do not want to vote for morally enhanced candidates. There are numerous reasons to vote for a politician, and some of those reasons might even be immoral. A person voting for a hardline nationalist candidate might have a strong aversion towards people of different ethnicity and hope for the candidate (if he is

⁷ At least if you don't subscribe to a view such as presented by David Benatar in his book "Better Never to Have Been: The Harm of Coming Into Existence" (2016), which holds that coming into existence is a serious harm that all the wellbeing you experience in life can never repay.

elected) to make life more difficult for people matching that criteria. This sort of person is not voting because they believe their candidate is more moral than their opposition, so it is hard to imagine they would vote for someone speaking for softer values just because they happen to be morally enhanced. I agree with this assessment. I will argue, however, that only in rare cases will people hold being more moral against a candidate. Donald Trump was elected in 2016 for many reasons, including but not limited to his tough policy on immigration, his perchance for not letting the truth get in the way of a good story, and his reputation as a shrewd businessman. Many of these things are morally questionable, yes. Despite this, I do not think that many people voted for him because he is *immoral*. Many of Trump's campaign promises, such as the infamous vow to "drain the swamp", centered on him being an outsider coming to fix politics and fight corruption. These sort of promises would be even more attractive coming from a certifiably moral candidate. Based on this, I think that being more moral would more often count in the favor of the candidate than against them. I will also hold that not every candidate who is elected needs to be morally enhanced to bring about positive changes. In countries with a history of coalition governments, it is possible for the national agenda to make a turn towards environmental friendliness just because a small green party was needed to form the government. If a decent percentage of elected officials are morally enhanced, they could still influence policy making into the right direction without even being the majority.

If only some of the politicians are enhanced, there might be a danger of the morally unenhanced politicians abusing the properness of the enhanced ones. Politics is often described as a game – and a rather dirty game at that – where half-truths, backstabbing and backroom deals are part of the daily life. If the morally enhanced politicians would not consent to use immoral tactics to further their political goals, it could hamper their ability to act effectively on the political arena. I will argue, however, that the concerns raised by Archer could again work in the favor of the morally enhanced here. If people have strong reasons to prefer morally enhanced people as partners due to their reliability, it also work as an incentive for unenhanced politicians to seek them out as allies. The reason why politics is mired in underhanded tactics can be due to politicians being unable to trust other politicians not to seek short-term victories on their expense, thus leading to a political prisoner's dilemma. This problem would be mitigated through the introduction of morally enhanced politicians in the system, potentially making politics in general more cooperative and trusting.

I have showed before that moral enhancement does not make anybody more moral by itself without proper moral education. This being so, could it not be that immoral people with no moral education are going to morally enhance themselves to gain public approval, and then use enhancement-immune moral nature to further their selfish goals in power? Certainly, this is a possibility. I will, however, attest that this would only be the case on very rare occasions. Most of humans in liberal democracies, through shared basic education, share a basic understanding of morals. They know it is immoral to lie, steal, cheat and so on. The reason why humans still do these things is more often than not out of weakness of character, not out of epistemological defects. Thus, most people would benefit from moral enhancement, and even the few how are truly unable to distinguish between right and wrong could benefit from, for example, heightened capacity for altruism or lessened racial aversion.

Another related problem to the one I just described is the question of how we can distinguish a morally enhanced person from a one who is not. Perhaps ambitious and immoral people could just claim to be morally enhanced in order to gain the public trust, but in reality would have no intentions of enhancing themselves. This issue already exists in politics: politicians are often caught lying about their background, their achievements or their academic credibility. It is the job of journalists check the validity of claims like this, and moral enhancement should be no different. It is also not that hard to imagine moral enhancements being administered in the same way as vaccines are, and in this case a clinic administering the enhancement intervention could even give their patients a certificate of their enhanced status.

Next, remembering Sunstein's study on the American attitudes toward strangers and climate change, what is to stop the public from voting the morally enhanced out of office if they raise the taxes or restrict consumption of red meat to fight climate change? In practice, nothing. However, in voting against a morally enhanced candidate would mean that the voter would have to admit to themselves that they *do not want morally good policies*, which could act as a deterrent towards the enhanced losing their voter base. A disgruntled voter could also find a new candidate in another morally enhanced person running for the office and vote for them instead. Morally enhanced people are, after all, still individuals with their own personalities, even if they all benefit from a higher capacity for altruism, impulse control and so on. It is not a far-fetched idea that they would still be treated by the voters as individual candidates, and

not just lumped together as clones of each other. This is especially probable if different parties have morally enhanced candidates.

Finally, there is the possibility that even if everything I have said above holds true, perhaps moral enhancement interventions are just not a very good or efficient way to achieve the desired results when weighted against other possible ways of creating more morally responsible societies. Research into biomedical interventions, clinical tests to ensure their safety as well as their distribution takes time and resources. On the other hand, liberal democracies typically already have quite comprehensive formal education systems, with most citizens going through some sort of general education during their childhood and adolescence. In these societies, there could be argued to have been major moral developments for the better during the last hundred years or so, with no help from moral enhancement. Information campaigns on the effects of climate change as well as media coverage on the subject have also been successful in bringing the issue to the spotlight and increasing global political pressure. Perhaps the better solution is simply to double down on what we have already seen working in the past? This could entail putting our efforts into increasing the quality of moral education in schools and working to secure more funding for beneficial non-governmental organizations as well as ensuring the continued freedom of the press. Some commentators certainly have thoughts running along these lines. Robert Sparrow, for example, has argued that the problems facing humanity today stem from deep socio-economic issues of inequality between individuals as well as nations. According to Sparrow, the situation could be corrected by removing institutional structures that reward egoistic and short-sighted behavior, thus rendering moral enhancement unwarranted. (Sparrow 2013, p. 29.)

In response to this last possible objection, I would argue that there is no need to set moral education⁸ against research into moral enhancement any more than there is a need to set information campaigns about the importance of recycling against research into renewable energy sources. Moral enhancement interventions would simply empower individuals to better follow their moral codes, and thus their effectiveness in fostering morally better decisions is limited by the quality of the ethical thinking of the enhanced. Following this line of thinking, better moral education and more information on ethical issues would also

⁸ Or beneficial non-governmental organizations, efforts towards eliminating institutional corruption, and so on.

empower moral enhancement to work as intended. Arguing as if we must choose one or the other – moral education or moral enhancement – is to indulge in a zero-sum fallacy. Liberal democracies do and will for the foreseeable future support both multiple research projects as well as varied education initiatives at the same time. While Robert Sparrow is undoubtedly correct that many of our pressing political concerns would be gone if we eliminated institutional incentives for selfish behavior, he offers no new insight into how this change could be facilitated. After all, the problem is not exactly new, and it is largely the same legislators who benefit from those incentives who would have to work to get rid of them, which is one of the key issues behind Savulescu's and Persson's pessimism towards the capabilities of the liberal democracies. Perhaps a new generation of more moral lawmakers, armed with better moral education, would indeed succeed in evading the siren call of short-term decision making and pandering to voters' baser instincts. In the meantime, there is no reason to not also research into moral enhancement interventions as another possible avenue towards morally better decision making.

6. Conclusion

In this thesis, I have argued that the opponents of the human enhancement project have thus far failed to produce credible objections to enhancement as a whole, leaving at least some forms of enhancement as morally permissible or even praiseworthy. I have further advanced a view that out of these permissible forms of enhancement, moral enhancement is especially potential from the point of view of generating morally better decisions in societies. Unlike Julian Savulescu and Ingmar Persson have argued before, my argument does not call for a wide-scale adoption of moral enhancement interventions in societies. Instead, I have argued that merely enabling at least some of the people living in the societies with the possibility of morally enhancing themselves, these enhanced individuals will be able to out-compete their non-enhanced rivals in democratic elections, leading to morally better political decision-making. While this can be problematic from the viewpoint of equality – especially if moral enhancement interventions are not widely available – I take the result of more just and globally responsible societies to trump these concerns.

Does this mean that we should stop investing in moral education or public information campaigns and funnel all available resources into researching moral enhancement interventions? Hardly. Moral enhancement, by itself, will not make anybody more moral. It will just make it easier for those enhanced to act according to their moral code when it is conflicted with, for example, poor impulse control or biases. As such, a more robust degree of moral education and better information will empower moral enhancement, just as moral enhancement will empower individuals to put that education and information to practice. Just like it is sound to research into multiple different types of environment-friendly modes of energy production, it is also sound to research into multiple different avenues of making the current political system better. Human moral enhancement needs to be recognized and considered as one potential piece of a larger puzzle to creating globally more responsible societies – not as an end-all solution to all of humanity’s problems.

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