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## In Defense of Pharmaceutically Enhancing Human Morality

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## ABSTRACT

**Purpose:** I will discuss the prospect of pharmaceutically enhancing human morality and decision making in such a way as to eliminate morally unjustifiable choices and promote desirable ones.**Background:** Our species in the relatively short period since it has emerged has enormously advanced in knowledge, science, and technical progress. When it comes to moral development, the distance it has covered is almost negligible. What if we could medically accelerate our moral development? What if we could once and for all render our species totally immune to certain vices?**Methodology:** I will examine whether pharmaceutically intervening in human morality would compromise the autonomy of moral agents. I will argue that the argument from the autonomy of the moral agent is neither stable nor convincing.**Conclusions:** In the light of Kantian ethics we might consider moral enhancement by pharmaceutical means to be a perfect duty for moral agents.© 2017. The Author. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Ever since it first appeared on Earth, the species *homo sapiens* has made immense progress. It is not just our species' phenotype that has gone through tremendous changes, it is also the illustrious performance in sciences and the outstanding technological achievements we can take pride in, as well as the delicate, complex, and subtle social and political structures we have developed. Our species' overall progress follows an exponential pattern of growth, and this becomes even clearer if we compare it with other primates. Indeed, if in some miraculous way a primitive ancestor of ours had the opportunity to make a journey through time and visit our world, he would hardly recognize anything.

This is not absolutely true. Some among our avocations might ring a bell or even look quite familiar to this strange time-traveler: war for sure, and also rape, murder, and a few more of this kind. These have remained as they have always been, save that now—due to technological progress—they come in much more wild, massive, complicated, and effective form. The bottom line is that, when it comes to moral progress, our species is by no means justified to entertain the same enthusiastic feelings that befit its performance in almost every other field.

No doubt, our morality has not remained undeveloped in the course of time. In most cases sex, physical differences, and

personal traits are no longer reasons for different moral treatment or concern. We still make wars but do so less and less often, and when we do wage them wars are regulated by international rules that focus on the protection of civilians, the humane treatment of prisoners, and respect for human rights. Our moral concern seems now broad enough to include not only future human generations, but also nonhuman animals and the well-being of the ecosphere. Still, our achievements in the field of morality seem almost trivial when compared with those in every other field. This shortfall unfortunately is enough to cast a heavy shadow on the entire picture. The nuclear weapons we still keep aiming at ourselves; our awkward and permanent fixation with the destruction of the planet on which we live; and the fact that we allow one-third of the entire human population all over the world to struggle just to meet basic needs like food, shelter, and medication to some is clear and adequate evidence that our morality remains so primitive that it renders us entirely unfit for the future. It seems after all that Plato was right: Knowledge, when separated from justice and other virtues, becomes unscrupulous.<sup>1</sup>

**Enhancing morality: The challenge**

The question, of course, is: Do we have any means available to accelerate the moral progress of mankind to such a degree that we restore a secure and functional equilibrium between technical and moral progress, and address properly and in time the challenges that need to be addressed? To this one could answer: Yes, we still

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have humanitarian education. Nevertheless, centuries of humanitarian education have not made our species a substantially better one,<sup>2</sup> and in any case, the fruits of education usually require much time to grow; however, the way the situation now seems to be, we cannot afford to wait.<sup>3</sup> We need to seek something much more efficient and swift than education.

What if we could direct scientific and technological progress toward the pursuit of moral progress? What if, for instance, we could intervene in the human genome in such a way as to locate and eliminate defective genes like the ones linked to antisocial behavior,<sup>4,5</sup> aggression,<sup>6</sup> and intolerance? Recent advances in genetic engineering are quite promising;<sup>7</sup> it seems possible that in the not-distant future this option may be available for consideration. Another option, one that is available in the present, is to pharmaceutically affect our chemical condition with the purpose of enhancing desirable moral dispositions and traits such as solidarity, trust, and tolerance, and eliminate undesirable ones such as aggressiveness, intolerance, and antisocial behavior.

### Pharmaceutical intervention: A promising prospect

Recent clinical studies suggest that the way we treat others on the one hand, and the way we answer moral dilemmas on the other, is often tied to our brain chemistry. Administering specific medication is shown to have large-scale effects on moral behavior and decision making. Until now there is only circumstantial evidence that moral bioenhancement is actually feasible. New studies constantly add to our knowledge concerning the chemical mechanisms that affect moral disposition and behavior. Now the prospect of pharmaceutically inducing desirable moral attitudes doesn't seem neither distant nor vague.

In a recent study Saez et al<sup>8</sup> set off to examine whether at the neural level there is a link between dopamine and prosocial behavior that enables large-scale cooperation in the human species. In particular they focused on the way dopaminergic mechanisms affect prosocial feelings, such as generosity and aversion to inequity. To this purpose they administered the brain penetrant catechol-O-methyl transferase (COMT) inhibitor tolcapone to 35 patients who participated in a continuous version of the dictator game. Tolcapone is known to affect the brain by "augmenting dopamine tone in brain regions with low levels of dopamine transporter expression, especially the frontal cortex and hippocampus."<sup>8</sup> The study showed that manipulating the levels of dopamine results in a general increase in behavioral sensitivity to inequality and, at the same time, in a modest yet systematic increase in egalitarian behavior,<sup>8</sup> both owed to the known effects of COMT inhibition on tonic dopamine levels and, consequently, the balance between phasic and tonic dopamine.<sup>8</sup> These findings suggest that the study of the dopamine regions and dopaminergic mechanisms may reveal in the future that the way we weight our personal preferences versus the preferences of others can be manipulated by properly regulating the levels of dopamine in particular areas of the brain. Because egalitarian and inequality aversion feelings are tightly connected with social behavior and moral feelings, this would have a large-scale effect on our morality.

In another recent study, Crocket et al<sup>9</sup> examined how manipulating the levels of the neuromodulators serotonin and dopamine affects the tendency to harm self and others, which is a core component of aggression and antisocial behavior in general. In particular, they investigated whether such tendencies are susceptible to monoaminergic control by administering the serotonin reuptake inhibitor citalopram and the dopamine precursor levodopa to healthy subjects. Citalopram enhances serotonin neurotransmission by blocking its reuptake and prolonging its actions in the synapse, whereas levodopa elevates central dopamine levels.<sup>9</sup>

The findings of the study showed that enhanced serotonin function by means of inhibition of central reuptake that augments synaptic serotonin selectively increases aversion toward harming self and others, whereas enhanced dopamine levels decrease feelings of harming oneself over others.<sup>9</sup> The ability to pharmaceutically control harm-aversion as well as altruistic feelings and tendencies clearly has implications for successfully treating social dysfunction-related diseases, but the possibility of being able to favor desirable moral attitudes over undesirable ones is also high. Other selective serotonin reuptake inhibitors like sertraline and fluoxetine that are mostly prescribed as antidepressants in the case of major depressive and anxiety disorders seem to boost fair-mindedness, and to favor feelings of altruism and team spirit among patients.<sup>10,11</sup>

Another substance that seems to have a great effect on moral behavior is oxytocin, a neuropeptide produced in the hypothalamus and released into the bloodstream through the posterior pituitary gland.<sup>12</sup> Oxytocin is normally used to stimulate or mediate contractions of the uterus during labor. Clinical trials have shown that, as a side effect, elevated oxytocin levels facilitate trust,<sup>13</sup> trustworthiness,<sup>14</sup> empathy,<sup>15</sup> and generosity.<sup>16</sup>

What the findings of these studies (and others) imply is that if we decided to accelerate the moral progress of our species, our arsenal would not be empty. As I mentioned before, these are only circumstantial evidence provided by individual studies. Imagine if we decided to direct all our efforts to the purpose of enhancing human morality by means of pharmaceutical intervention. We might at last have the chance to live in a world of justice, equality and solidarity, and war or crime would belong to a distant and reluctantly remembered past. Is it a brave new world the one we now have just a glimpse of? Well, a new one it may be, no doubt. As for being brave, there are some very serious issues to be considered, and they mostly regard the autonomy of the moral agent.

### Moral considerations: Autonomy, free will, and dignity

The autonomy of the moral agent seems to be vulnerable to such efforts of externally interfering with and moderating moral behavior. In the case one perceives the notion of autonomy in its standard sense, to wit the one Kant<sup>17</sup> suggests, pharmaceutical intervention might seem to make autonomy vanish into thin air. To Kant,<sup>17</sup> autonomy is the property of the will through which it becomes a law to itself. If perceived this way, autonomy is identical to freedom; in fact, it is the property that renders free the will of all rational being. To be autonomous, the will must regard itself as the author of its principles independently of alien influences, and to be only subject to a special kind of causality, namely "a causality that acts under normative principles, hence a capacity to choose between alternatives according to one's judgment about which alternative is permitted or required by a norm."<sup>18</sup> In this sense autonomy is the foundation of human dignity and the sole principle of morality,<sup>19</sup> or, as Kant puts it elsewhere,<sup>19</sup> "the ground of the dignity of the human and of every rational nature." If our autonomy is compromised, this will have a direct effect on our dignity and moral status, as well. This is the key moral consideration with regard to pharmaceutical moral enhancement, because its only purpose is to manipulate the will of the moral agent making redundant some of the options he might otherwise have. This would compromise the property of the will "to be the author of its principles independently of alien influences." On the contrary, our will would be guided mostly by alien influences.

In such a case, of course, we would be totally incapable of raping, murdering, or bullying; nevertheless, it would not be us anymore, but oxytocin or citalopram instead. We would be totally

deprived of the freedom to err or to fall; therefore, there would be no merit in being right and just. In this sense we would have lost our freedom and, hence, our dignity as moral agents. As Seneca puts it,<sup>20</sup> some beings may only have value (*pretium*), but they cannot have genuine merit (*dignitas*), because they differ only in degree but not in kind. *Dignitas* may only be reserved for unique beings, but not for beings quantitative different to others. The only reason why we humans may be allowed the property of dignity is that each of us is unique; and what makes us unique is the fact that we can make unique decisions—according to our own free will that is only obedient to reason. A group of people with elevated levels of a particular pharmaceutical substance will not be able to make unique decisions—they could hardly decide at all as for the way they would treat their selves and others—they would be whatever a specific substance allowed them to be and act the only way this substance allowed them to act. Their deeds would be different only in degree, but not in kind: they would be quite, very, or extremely altruistic, but they would not have the option to be selfish; they would not be free, at least not the way John Milton describes freedom in his famous verse: “sufficient to have stood but free to fall.”<sup>21</sup> However, it is exactly this ability to fall that renders us autonomous, free, and moral. In the words of John Harris:<sup>22</sup> “... Milton’s insight is the crucial role of personal liberty and autonomy: that sufficiency to stand is worthless, literally morally bankrupt, without freedom to fall. Our freedom to fall is ‘precious.’” In this very sense, morally enhancing people by means of medication would be depriving them of the ability to act morally wrong, and it would be stealing their autonomy. If one is not free to fall, one might be considered lucky or even blessed, but by no means autonomous.

### Rethinking autonomy and free will

Considerations concerning autonomy are extremely significant for bioethics, and especially for bioethicists who are close to the Kantian tradition. Are we justified to object pharmaceutical moral enhancement based on arguments from the autonomy of the moral agent? Not entirely. In my view, a moral agent could be still acting autonomously even if he decided to restrict his own autonomy by receiving a substance that would deprive him of the ability to become a sex offender or a rapist, for example; furthermore, the way I see it his decision could still count as an autonomous one in the Kantian sense. My argument is this: Rape can never be an option for any rational being because it conflicts with the second formula of Kant’s categorical imperative, the famous formula of humanity as an end in itself: “Act so that you use humanity, as much in your own person as in the person of every other, always at the same time as end and never merely as means.”<sup>23</sup> The rapist clearly uses humanity in the person of his victim only as a means, and this is utterly irrational, because by definition “the rational being itself, must be made the ground of all maxims of actions never merely as means, but as the supreme limiting condition in the use of all means, i.e., always at the same time as end.”<sup>23</sup> It follows that a rapist allows himself to become a rapist not according to his own free, autonomous, rational will, but because of something alien to this, some kind of natural heteronomy he cannot resist. Consider the Sirens incident in the Odyssey.<sup>24</sup> Ulysses is well aware that he ought not rush into the sea when the enchanting song of the Sirens reaches his ears. He is also well aware that when this happens, he will not be able to resist the urge or impulse to do so. Therefore, he decides to limit his options beforehand. At the time there were no pills, but he could make his crew plug their ears with wax and tie himself to the mast of his ship. His decision to do so was the only rational and, therefore, autonomous one in the Kantian sense. Any other

would have been irrational because he would have used himself and his comrades merely as a means to an end. Ulysses decided to take all necessary preliminary measures in the face of a situation that would leave him no option but to succumb to natural heteronomy. In other words, Ulysses autonomously—I here use the term in the Kantian sense—decided to deprive himself of the ability to fall. The question is whether he actually compromised his own autonomy by deciding thus. Although Ulysses never had the chance to become familiar with Kant’s views concerning the autonomy of the moral agent, he might have thought something like this:

If I rush into the sea when the enchanting song of the Sirens reaches my ears, will I be able to regard my will as the author of its principles independently of alien influences, and subject only to a special kind of causality, namely a causality that acts under normative principles, hence a capacity to choose between alternatives according to my judgment about which alternative is permitted or required by a norm? No, I will definitely not. Therefore, the impulse to rush into the sea will be irrational, and hence by no means an autonomous decision. It could only be an urge, an instinctive reaction, but never a rational choice. At this very moment, however, I still have the ability to prevent the otherwise unavoidable elimination of my autonomy. I still have this mast and these ropes, and people to help me with. And while to the ignorant spectator I may seem as totally deprived of my autonomy and freedom as I will be struggling and begging my comrades to untie me, I will be as autonomous and free as I could wish to be at the very moment.

Now consider the case of a sexual offender who, although he endorses the Kantian maxim that he ought to treat humanity in the face of others always at the same time as an end in itself and never merely as a means, is also well aware that in certain circumstances he totally loses control of himself and becomes offensive. In my view, such a person would be in the horns of exactly the same dilemma as Ulysses. If he decided to tie himself to the mast of his ship (to wit, ask to be administered pharmaceutical substances that would make him invulnerable to the heteronomy of his own nature), his decision would be as autonomous as Ulysses’ was. In a sense, such a person could even be considered to have the duty to morally enhance himself by every means available.

### Conclusions

I remain unconvinced that there is indeed such an urgent need to seek ways to accelerate the moral progress of our kind, as Savulescu and Persson<sup>2</sup> assume. In my view our species’ morality has clearly advanced over the years so much so that it now includes not only all individuals of our kind (eg, people of color, women, and handicapped people), but also nonhuman life and the environment—and this, no doubt, is substantial moral progress. Moreover, I am not at all sure that, even if there were such a need, pharmaceutical intervention would be the proper means to this purpose. Nevertheless, I do not consider the objections against pharmaceutical moral enhancement that are based on the argument from autonomy convincing, either. I do not see why my autonomy would be compromised if I autonomously decided to receive medication to protect myself from lapses of judgment and reason, natural instincts, and impulses that would otherwise be unavoidable due to my very own nature and would lead me to decisions or actions I reject as a rational moral agent. By definition nature and morality are normally no friends to each other, because morality’s mission is to moderate and temper our natural tendencies. Therefore, in my view, shaping nature in such a way as to

match rational human morality at the end of the day is less absurd than the opposite.

The possibility of enhancing human morality by means of pharmaceutically affecting prosocial feelings, moral dispositions, and decision making, should not be rejected out of hand. Scientific research in this field is already in progress, and it is too early to know and predict its day-to-day application. What I set out to demonstrate is that pharmaceutical intervention would not necessarily compromise either the free will or the autonomy of the moral agent; furthermore, pursuing such a possibility might even be considered a perfect duty for moral agents in the Kantian sense.

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### Conflicts of Interest

The author has indicated that he has no conflicts of interest regarding the content of this article.

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