

# Does Kantian Ethics Condone Mood and Cognitive Enhancement?

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**Abstract** The author examines whether Kantian ethics would condone the use of pharmaceutical drugs to enhance one's moods and cognitive abilities. If key assumptions concerning safety and efficacy, non-addictiveness, non-coercion, and accessibility are not met, Kantian ethics would consider mood and cognitive enhancement to be impermissible. But what if these assumptions are granted? The arguments for the permissibility of neuroenhancement are stronger than those against it. After giving a general account of Kantian ethical principles, the author argues that, when these assumptions are granted, Kantian ethics no longer justifies the prohibition of neuroenhancement, and responds to two objections.

**Keywords** Applied ethics · Kantian ethics · Mood and cognitive enhancement · Dignity · Humanity, rational agency

Would Kant's moral philosophy condone pharmacological interventions that enhance cognition and/or mood in human adults? Cognitive neuroenhancement involves the use of medical interventions to improve, in a healthy individual, cognitive functioning such as the exercise of memory, concentration, alertness, or willpower [1].

Pharmacological cognitive enhancement refers to the improvement of human cognitive abilities to remember, reason, deliberate, create, or concentrate, through the use of pharmaceutical drugs such as Provigil, Adderall, Aricept, Strattera, or Ritalin.<sup>1</sup> Similarly, mood neuroenhancement involves the use of pharmacological interventions to create feelings of happiness or contentment.<sup>2</sup> (*Moral* enhancement, which helps one become a better person or achieve one's moral aims more easily, is not examined here.) Cognitive/mood enhancement is understood as an intervention that improves the functioning of a person's cognitive or emotional subsystems beyond that individual's

<sup>1</sup> Since it would risk dating the paper, I hesitate to list specific psychotropic drugs and prefer to leave this as undetermined as possible. The ethical issues and arguments should continue to be relevant even if different enhancers are used. See Chatterjee [2] for examples of enhancers, and the prediction: "it is inconceivable that enhancements will not be used widely" (10). Moreover, "taking" or "use" refers to patterns of behavior rather than to a single act, since the former seems more controversial and hence more worthy of analysis.

<sup>2</sup> To broaden the discussion, I discuss mood and cognitive enhancement together and will sometimes use the term "neuroenhancement." Zohny [3] places these under the category of "psychological enhancement." The details of the differences between them need not concern us, and the structure of the arguments appears to be similar. Some of the cognitive enhancers have an affect on our moods and affects, and vice versa. The 2003 President's Council on Bioethics report ([4]: 214) asks if it would be permissible to give *memory-blunting* drugs that could free us from the *emotional* burden of intrusive and painful memories to people who have suffered grievous disappointments or witnessed horrifying events. Zohny [3] argues that neurologically it makes little sense to distinguish the cognitive from the non-cognitive (including mood and motivation) as separate targets of pharmacological intervention. Finally, Vrecko [5] finds that stimulants' effects on people's emotions and feelings are important contributors to their perceptions of improved academic (one kind of cognitive) performance.

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reference state, indexed to the baseline state of humans functioning within a band around the species-typical mean.

Use of such pharmaceuticals for medical therapy or treatment is not ethically controversial. Drugs that count as “enhancers” and merit the designation are not used for treatment or therapy. Rather, as enhancers they are taken to improve normal cognitive abilities or emotional states, allowing a person to concentrate (for instance) at his or her peak capacity longer. The present topic, in other words, includes the “off-label” use of prescription drugs approved for medical treatment, as well as the use of similar drugs once (or if) they became widely available. The set of drugs under discussion in this paper includes the class of drugs approved to treat diseases or disorders such as Alzheimer’s, ADHD, PTSD, anxiety, or depression. As “enhancers,” they would be used to cope with cognitive decline or stress or to become more content or happier.<sup>3</sup>

This raises the thorny issue of what counts as enhancement. How we distinguish treatment or therapy from enhancement is a complex and difficult matter, and a full examination of this distinction is beyond the scope of this paper. Short of spectacular displays produced by powerful and effective enhancers, the line between therapy and enhancement can seem blurry, as numerous scholars have noted. What is ultimately needed is a sense of what counts as “normalcy” and clarity regarding “the natural,” “health,” and “disease,” concepts which can be elusive. But this does not mean that a workable distinction is unavailable, even if there is a fuzzy or gray area. It will be assumed that, while there may be borderline cases, in some (clearer) instances a distinction can be made. Let us assume, then, that the term “enhancement” applies when medicine and biotechnology are used to improve the “normal” workings of the (healthy) human body and mind, to augment or improve native or given capacities and performances (cf. President’s Council [4]: 13). Pharmacological neuroenhancement, accordingly, is understood as any attempt to use pharmaceutical drugs to improve, beyond the ranges that are normal for the person in question, a human being’s mood or affect (leading to more contentment or happiness)<sup>4</sup> or cognitive abilities. “Normal”

<sup>3</sup> The scope of this paper is limited to this non-therapeutic use by consenting adults. Moreover, it concerns neither drugs taken to create psychedelic or hallucinatory experiences, nor drugs such as marijuana used for either recreational or religious reasons.

<sup>4</sup> The concept of “happiness” can be broadly understood to include not only health but also those goods (e.g., achievements, prosperity, wealth, renown, power, etc.) that are conducive to happiness and which may be more directly the goal at which people who use neuroenhancers aim.

is probably best understood relative to the individual’s baseline state too, not just to the human population at large, since human capacities can vary widely from person to person; at the same time, normalcy is to be indexed to the baseline state of those persons who are functioning within a band around the species-typical mean. (Thus, if a healthy individual whose cognitive function was somewhat, but not far, below average relative to other humans took a pharmaceutical drug to improve that particular ability, then this would count as enhancement.) Whereas medical *therapy* or treatment restores an individual’s functional capacity to the species-typical range for their reference class (e.g., age and gender), and within that range to the particular capability level which was the individual’s so-called genetic birthright ([6]: 129), an intervention that attempts to take a person to the top of the typical range of that state or ability for that person, or to exceed his or her current limits, would be viewed as *enhancement*. This sense of “enhance” is intended to be (as much as possible) morally neutral and non-question-begging. In other words, the use of the word should not be taken to assume at the outset that pharmacological interventions should (or should not) be used to enhance cognition or affective states beyond the normal; the ethical permissibility of enhancement is the very issue.

In addition to the significant fact that there is an increased scholarly interest in the ethics of neuroenhancement, there are several motives for offering the present analysis. First, while I wish to avoid sensationalism, use may be becoming more prevalent, at least according to some studies [7]. According to its informal poll [8], 20% of *Nature’s* readers ( $n = 1400$ ) admitted using enhancing drugs to improve focus, concentration, or memory, with 62% of users choosing methylphenidate (Ritalin) and 44% modanafil (Provigil). Schulman [9] thus claims that there appears to be a growing number of psychoactive drugs that modulate not only behavior, but also attention, memory, cognition, emotion, mood, personality, and other aspects of inner life. Although more (and more rigorous) study is certainly needed, and while at least one paper [3] doubts the prevalence of neuroenhancement,<sup>5</sup> the latter may become more than a mere sporadic and infrequent event, especially among university students [10]. In similar fashion, Chatterjee [2, 11] predicts that “cosmetic neurology” will become more widely accepted and conjectures that it might take a trajectory

<sup>5</sup> Even so, it is still worth discussing the ethical implications of the *possibility* that this trend might increase in the future. In any case, the argument of this paper does not hinge on the truth of the claim that use is becoming more prevalent.

similar to that of cosmetic surgery. Furthermore, if populations in industrialized countries continue to age and workforces become multi-generational, neuroenhancement may be expected to be increasingly alluring or tempting, as aging workers seek to restore their own cognitive capacities to previous levels, especially if they desire to work in information-based, service-oriented economies. Hence, a president of the European College of Neuropsychopharmacology [12] once stated: "Previous ethical discussion of such agents has tended to assume extravagant effects before it was clear that there were any. If correct, the present update [that there are few such effects] means the ethical debate is real: how should we classify, condone, or condemn a drug that improves human performance in the absence of pre-existing cognitive impairment?" Indeed, in a second step of my analysis, I will assume that these adverse or "extravagant" effects (as well as certain other negative features) are absent or negligible.

Second, although there has been recent discussion of this issue [13], and while there are other (e.g., Aristotelian) approaches [14], more analysis of what Kantian ethics<sup>6</sup> can contribute to the debate is needed. Given the prevalence of "Kantian" approaches in ethics (which themselves take various forms, from the "orthodox" to the more reconstructive), it would be helpful to examine further (cf. [1]) what Kantian ethics implies when it comes to the present issue, in order to contribute to the contemporary debate.<sup>7</sup>

In the first step of the paper, I do *not* grant some crucial and significant assumptions, namely, that the drug is effective, safe (with negligible side effects, and posing little to no risk of adverse medication interaction), non-addictive, without long-term adverse effects, relatively cheap, allocated fairly and without coercion, and accessible. I will argue that when these assumptions are not met, Kantian ethics would prohibit enhancement. But what happens once these assumptions are granted? I argue that Kantian ethics would then consider the use of enhancers to be permissible, although two objections can be raised. Accordingly, I will argue that Kantian ethics would not

condone the use of enhancers that are not safe, effective, accessible, etc. ("Assumptions and Kantian Ethics" section); present and defend the main arguments for why, once the assumptions are granted, neuroenhancement would be permissible ("Arguments for Enhancement's Permissibility" section); respond to two objections ("Two Objections" section); and offer concluding remarks ("Conclusion" section).

### Assumptions and Kantian Ethics

We must first deal with a potential problem with the very idea of applying Kantian ethics to the issue of enhancement. It might be objected that Kant has little to contribute to a debate about cognitive or mood neuroenhancement, on the grounds that he denies any moral significance to exactly those aspects of our humanity that are crucial to the debate, namely, our emotions, moods, affects, and feelings. Kant's exclusive focus on rational autonomy allegedly leaves him with a rather narrow and constricted account of our moral life. For instance, Schulman [9] asks: if the rational will alone is the seat of human dignity, why should it matter if we control our moods and emotions with drugs? However, not only can Kantian ethics be connected to such topics, but similar questions were of interest to Kant himself. Unfortunately, the objection reflects an overly-simplified interpretation of Kant's moral philosophy that many Kant scholars have tried to correct over the past few decades.<sup>8</sup> I will not rehearse those interpretations and arguments here. Instead, the question to be pursued can be formulated as follows: Would Kantian ethics, which is grounded on the notion of the dignity of rational agency, consider it ethically permissible to give mood-*enhancing* (non-therapeutic) drugs that could free consenting and healthy adults from the emotional burden of negative emotions that afflict human beings from time to time (such as moderate anxiety, etc.)? Would it condone the use of cognition-enhancing drugs that improve ordinary cognitive functions such as memory, concentration, and attention?

I will first examine enhancement when the aforementioned assumptions are not met, that is, when the drug is not safe and effective, accessible, and so on. I argue that

<sup>6</sup> The present paper articulates the principles of Kant's ethical theory with respect to enhancement. Likewise adopting a Kant-inspired approach, Meyers [1] seeks to establish (what Meyers calls) a "reflective equilibrium" between moral intuitions and broadly Kantian ethical principles. Cf. [15].

<sup>7</sup> Since Kant did not consider cognitive and mood enhancement by drugs per se, I offer a Kantian account by looking at his writings in ethics (cf. [16]) and anthropology, examining in particular his arguments about rational agency, humanity as an end in itself, and self-control.

<sup>8</sup> Just to give one of many possible examples, Shell points out the resources Kant can bring to bear on controversies in bioethics. A key term in her correction of the misrepresentation of Kant as a rigid dualist is "embodied" rationality ([17]: 334). Note also the title, *The Embodiment of Reason* [18].

Kantian ethical principles would imply that such use is impermissible (and therefore undesirable). To see this, we must first turn to the nature of Kantian ethical moral principles and give a general, if brief, overview of Kantian ethics.

The idea of rational agency lies at the core of Kantian ethics. Kant held that we should treat persons as “ends in themselves,” that is, as if they had inviolable dignity. “The human being and in general every rational being exists not merely as a means to be used by this or that will at its discretion; instead he must in all his actions ... always be regarded at the same time as an end” (*Groundwork* 4: 428).<sup>9</sup> Accordingly, we should respect the “humanity” in other people, because they are rational beings. For Kant, “humanity” is not membership in the class of beings called *Homo sapiens*, but “the capacity to set” any end for oneself (*Metaphysics of Morals* 6: 392; Kant [19]). Diverging perhaps from its ordinary contemporary meaning, “humanity” thus refers to our power of rational choice and capacity to set ends in general. Kant holds that we should respect rational agency, or the ability to set ends at all; this rational ability, Kant thinks, grants dignity to the being that possesses it. Kant considers dignity to be “what constitutes the condition under which alone something can be an end in itself,” and it has not merely a “relative value” (a price), but also “inner value” (*Groundwork* 4: 435). Consequently, we have a duty not to harm innocent human beings, including ourselves: bodily or psychological harm to others (e.g., murder) and to oneself (e.g., suicide) are thus ethically prohibited. Likewise, this Kantian ethical principle also implies that not every means to an end (however good the end may be) is permissible; the means used have to be examined by Kant’s well-known “categorical imperative” test. All of this amounts to asking some or more of the following questions. Do the means adopted and its corresponding “maxim” (i.e., principle underlying or guiding the agent’s action) respect human beings, that is, does it respect their rational agency and capacity for

autonomy? Do the means avoid making exceptions of the agents or decision-makers? Do they help create a richer and better ethical community?

Two corollaries, I think, can be deduced from this grounding in rational agency. One corollary to the ethical principle of respect for rational agency is that we should strive to act like fully rational beings and to promote rational agency (in others and in ourselves) as well as the conditions that make it possible. For instance, according to Kant’s philosophy of religion, the divine being and angels function as rich symbols that are useful for the promotion of morality, serving as moral ideals. Likewise, “duties” can be thought of as being divine commands. It is because he thinks that agents should not only respect the rational agency in ourselves and in others, but also should *endeavor* to be rational and promote its conditions, that Kant praises self-control and the lack of affect as moral ideals. Contrary to widespread interpretations of Kant, and as many scholars have noted recently, such praise need not be taken as a *deprecation* of the emotions. It is instead best understood as an expression of the enormous value Kant places on rational agency and his insistence that it gives rise to a kind of dignity.

A second corollary associated with Kant’s view of rational agency is that we can have higher-order and more rational desires, and that we can have lower-order and less rational desires, whereby the former are truer expressions of the authentic self (since they express its rational nature better). Being rational allows agents to be more autonomous or to exercise “autonomy” better.

The concept of autonomy is a well-known and central notion in applied ethics. In Kant’s wake, the concept of autonomy has taken on a life of its own in bioethical debates, where it is often understood as the idea that a medical decision is best left up to the individual or individuals involved. Autonomy in this case is understood as self-determination, and taken to imply (if not simply amount to) voluntary, informed consent. However, this is not what Kant meant by autonomy [21, 22]. For Kant, autonomy is not simply letting people decide to do whatever they want or desire without external interference so long as there is informed consent, but rather consists in one’s recognizing the authority of a moral law, legislated by reason, to which one is subject, but of which one is also the author. Autonomy requires treating every rational being (including oneself) with respect, and

<sup>9</sup> Kant’s formula of humanity states: “So act that you use humanity, as much in your own person as in the person of every other, always at the same time as an end and never merely as a means” (*Groundwork* 4: 429). Kant’s texts are cited using an abbreviated name, followed by the volume and number in the Academy Edition (*Akademie Ausgabe*) of his writings (e.g., 4: 428). The volume and number are listed and easily identified in the English translations cited (see References). “*Groundwork to a Metaphysics of Morals*” (in Kant [19]) is hereafter abbreviated as “*Groundwork*.”

always as an end in itself. As Kant's formula of "universal law" implies, this requires not making exceptions of oneself; for instance, one breaks this ethical principle when one lies, cheats, steals, or deceives.<sup>10</sup> But that is not all. In addition to simply avoiding making exceptions of ourselves, we should also try to build ethical communities, a "realm of ends"<sup>11</sup> in which rational agents not only respect, but also support, encourage, and presumably even aim to contribute to each other's happiness. Indeed, this is why Kant claims that the various formulations of the categorical imperative, namely, the formulations of "universal law," "humanity," and a "realm of ends," are fundamentally one and the same (*Groundwork* 4: 436–437).

Andrews Reath claims that "the introduction of the concept of a realm of ends makes explicit the social dimension to Kant's conception of autonomy" ([22]: 175) and argues that Kantian autonomy presupposes, and can only be exercised among, a community of rational agents, each of whom possesses the same basic rational capacities and the same sovereign status ([22]: 185). Building on this, I would add that Kant's ideal of creating an ethical community or "realms of ends" can be connected to the idea that there should be a process or system in place that allows for just access to the goods and services that exist or are available in a society and required for flourishing in it, or at the very least (depending on the good) not being left behind by one's peers, lest the playing field become uneven. This would appear to be a necessary condition of a collective attempt to create an ethical community. Without it, the creation of an ethical community in which rational agency is not only respected but also promoted would be hindered by injustices of opportunity and access to such goods. This need not imply that all goods and services be distributed *equally*, nor that specific results are dictated. Different countries (or communities) will adopt different mechanisms to implement this basic ethical principle, and what is made available or accessible to citizens or community members will depend in part on an assessment of what is

economically or politically feasible in a particular country or place at a particular time ([23]: 285).

If the foregoing is correct, the lack of a community's<sup>12</sup> system ensuring fair access and opportunity to obtain enhancers (especially those affecting *cognition*) would lead to an unjust playing field. In short, such a condition of unfair access to the enhancers would appear to violate the universal law principle (cf. [1]).<sup>13</sup> Moreover, such a condition would likely promote lying and deceit in order to obtain scarce drugs, thereby causing agents to violate one of the most basic Kantian ethical duties.

Furthermore, unfair access could lead to unregulated markets and drug-related crime in addition to the aforementioned lying and deceit. Since black-market trade introduces a greater risk of production or safety concerns, users of drugs produced by an unregulated market would place themselves at risk of bodily or psychological harm. This would violate another basic principle of Kantian ethics, the respect of the human person as an end in itself, of the "humanity in our subject." It would not treat humans as beings with dignity, to be protected from psychological and corporeal harm.

Even if Kantian ethics is typically classified as "deontologist," Kantian ethics does not completely ignore or dismiss the "consequences" of an agent's maxims [24] or "states of affairs" ([25]: 261–262). If that is right, even if it does not make Kantian ethics "consequentialist," it does suggest that a consideration of consequences is not wholly out of place in a Kantian consideration of enhancement. Lack of long-term testing and of reliable study pose a genuine risk to enhancement. Repeated use of enhancers may lead to unintended, long-term effects, on the user, the public, or both. At

<sup>12</sup> E.g., a nation-state or even the global community. Where one draws this line need not be addressed here.

<sup>13</sup> One might well wonder at this point if there is something special about enhancements as opposed to health care and medical treatment. There is an ethically relevant difference here, and it has to do with accessibility and raising the average baseline. The relevant difference is that, on the assumption that there is an acceptable distinction between medical treatment and enhancement, the former would not raise the species-typical average baseline, whereas enhancement would. In a condition of unjust access to enhancement, this would effectively create an unfair playing field. Medical treatment or therapy can sometimes be scarce and unequally allocated; however, it does not raise the baseline but instead restores to average species-typical levels. A proper consideration of this complex issue, however, would lead to difficult questions about how much inequality can be permitted in a society, the distinction and relation between justice and equality, and what actions (or maxims) are ethically permissible for agents who live in a society with an unjust allocation of the goods in question.

<sup>10</sup> The formula of universal law: "Act only in accordance with that maxim through which you at the same time can will that it become a universal law" (*Groundwork* 4: 421).

<sup>11</sup> "Act in accordance with maxims of a universally legislative member for a merely possible realm of ends" (*Groundwork* 4: 439).

a very basic level, drugs may have addictive qualities and could lead to psychological or physical habit-formation or abuse. People might become dependent on the drugs to feel a new “normal,” or may grow accustomed to the enhancers. Rigorous empirical research and data are of course needed here to determine which, if any, of these obtain in the case of a given drug.<sup>14</sup> Until users can be assured that the drug is safe, non-addictive, and effective, the possibility of undesirable or unintended consequences poses a serious problem.

If the enhancers are being widely used by members of a society, there may be unintended social, not just individual, consequences. Raising the average baseline for cognitive and emotional performance is not in itself undesirable, but it could potentially put pressure on peers or employees to “keep up,” lest local, national, and/or global inequalities be widened. In other words, there may be an undesirable tendency to take the drug to conform to peer pressure, or a kind of soft coercion. Such pressure to keep up (which is distinguishable from raising the average baseline per se) becomes morally problematic if or when access to enhancements is unjust or unfair.

Compare the use of private tutors, excellent schools, or resource-rich libraries, which may turn out to be even more effective than enhancers in raising the cognitive performance of those who have access to them, and which are not generally viewed as controversial.<sup>15</sup> The relevant ethical feature for both academic resources and (safe, effective) enhancers concerns whether or not a system of fair access and opportunity is in place, and whether or not the worst-off in society struggle to use or take advantage of the goods and services. Unfair access is a potential problem for academic resources and enhancements alike, perhaps even especially the latter (given that they are pharmaceutical drugs). Both of them can raise the average baseline, and if they do, both should be widely accessible rather than available to only a small portion of society. Raising the baseline is not undesirable in itself, but becomes undesirable when there is unfair access to the good in question (e.g., enhancement, academic resource).

<sup>14</sup> Chatterjee [2] observes that there are significant institutional and economic impediments to such enhancement research on healthy individuals.

<sup>15</sup> I thank an anonymous review of this journal for suggesting this comparison.

If we grant the assumption that the enhancer is safe, effective, and non-addictive, then accessibility or opportunity to obtain enhancement becomes the principal morally relevant feature.

The upshot: the foregoing points should be taken into account when determining the general permissibility of neuroenhancement from a Kantian point of view. In light of these concerns, it is very difficult to see how Kantian ethics could condone enhancement if the aforementioned assumptions are not granted.<sup>16</sup>

On its own, however, this conclusion is not very surprising, even if important. For the sake of the analysis, let us remove these concerns, and see what Kantian ethics would say after granting the relevant assumptions. Let us assume that the enhancing drugs are safe (with few to no adverse effects or interactions), effective, non-addictive, relatively cheap or accessible (with just and equitable if not equal distribution), not being used to cheat or get ahead unfairly,<sup>17</sup> and not taken as a result of (implicit or express) coercion but instead by consenting, informed adults. What would Kantian ethics say if the drugs had the same level of safety, non-addictiveness, etc., as an over-the-counter drug such as acetaminophen or ibuprofen? After arguing that Kantian ethics would not

<sup>16</sup> Kant's is not the only ethical theory that would prohibit enhancement on the basis of some or all of these grounds. Presumably, utilitarian and consequentialist approaches would likewise object to the lack of access and raise concerns about distributive injustice. Aristotelian approaches would take issue with dependence and abuse, cheating and getting ahead unfairly, and, significantly, even with the idea of enhancement itself insofar as the epistemic benefits resulting therefrom might not constitute an *achievement* creditable to the user [14].

<sup>17</sup> Kantian ethics would forbid using pills to “get ahead” or cheat, since it violates the principles of fair competition (and the universal law principle). Meyers [1] argues that scholarship/science and art/creative activities are, unlike sports, *non-competitive* (or at least have a different kind of competition) – which thus makes enhancement permissible in scholarship/science. Though I agree with part of Meyers's conclusion, I am not fully convinced of the distinction between competition in sports and its analog in academic/scientific/artistic practices. The domains of academia/science/art are surely competitive in that participants compete for grants and funding, positions or posts (tenured or otherwise), acceptance by publishers or juries, titles and prizes, and perhaps even students or followers, not to mention the prestige and honor that accompany these. It is easy to imagine two professors (only one of which engages in enhancement) competing for *the same* (i.e., numerically same token) tenured post (or grant, prize, etc.). Such competition seems integral to the practice of “academia” and not merely subsidiary and incidental. (Meyers addresses this objection toward the end of the paper.) If neuroenhancement is to be shown to be permissible (on Kantian grounds) in the fields of science/scholarship and art, additional arguments would be helpful.

justify the prohibition of enhancement, I respond to two objections.

### Arguments for Enhancement's Permissibility

One might call the position that the use of enhancers is permissible the *pro* position, and its contrary the *contra* position. The *pro* position (defended here, once the assumptions are granted) holds that enhancement is a form of promoting the free exercise of rational agency, and liberates users from domination by their affective and cognitive weaknesses or shortcomings. Enhancement is thus conceived as a way of respecting the user's humanity, that is, one of the core principles of Kantian ethics. Far from violating the user's humanity, taking an enhancer in fact treats the user as an end in itself: enhancement respects and promotes rational agency. The *pro* position maintains that enhancement improves and fosters this end-setting ability ("humanity"). The Kantian concept of humanity requires agents to esteem both themselves and others as possessing objective value. This places limits on the uses to which one may put one's capacities. Accordingly, the crucial question is whether or not this limitation condition rules out, or instead allows, enhancement.

The *pro* position can appeal to the core principles of Kantian ethics, specifically, respect for free rational agency. As noted, a key principle of Kantian ethics is the respect for the conditions of rational agency.<sup>18</sup> We should respect the humanity in our person (*Groundwork* 4: 429), recognize the dignity in human beings, and treat them as inviolable ends in themselves. It is not clear how a safe, effective enhancer would violate human dignity or the dignity of rational nature.<sup>19</sup> But not only do enhancers *not* violate the conditions of rationality and rational agency, they even promote the conditions of rational agency and make users better equipped to pursue their ends. Enhancement can help a person fulfill her aims of happiness or success, and do so in ways that she can freely choose. It can screen out obstacles such as negative moods and

fatigue, thereby clearing the way for the agent to do what she wills or chooses.

A proponent of an Aristotelian approach to cognitive enhancement [14] maintains that there is little merit in "popping a pill." Understood in a certain way, Kantian ethicists can agree. That is, Kant does not locate the value in an action in naturally-determined events, such as the neuro-psychological effects of taking the drug. Rather, it lies in one's will and chosen maxims. But presumably the latter also includes choosing to take an enhancer in the first place and in what way one does so, as well as what an agent does *after* popping the pill. Although putting this way may sound too Aristotelian to some, it is not clear that Kantian ethics would not be able to take into account and evaluate the degree of prudence exhibited by the way in which an agent took enhancers, that is, the agent's timing, what the agent does afterwards, and so on.<sup>20</sup> As Savulescu, Douglas, and Persson ([27]: 102) observe, cognitive enhancers do not work without education and study, that is, without putting in the effort and energy. There can be merit in how one makes use of the ensuing renewed concentration, energy, or upbeat mood.

Consider again the comparison with academic resources (tutors, schools, libraries), which are not typically viewed as being ethically controversial. I argued above that the principal ethical feature for academic resources and (safe, effective, non-addictive) enhancers concerns fair access and opportunity to the goods in question. Thus, given the present assumption that there is fair access to (safe) enhancers, it is difficult to see what ethical problems would remain.

At this point an analogy with caffeine can be introduced, even if the validity of the present argument does not hinge on the strength of this analogy alone.<sup>21</sup> It seems inconsistent to admit the permissibility of caffeine (a

<sup>18</sup> For instance, Paul Guyer ([26]: 410) maintains that, for Kant, our most fundamental obligation would be not to destroy (e.g., by murder or suicide) rational agents, and our next most fundamental obligation would be not to destroy (e.g., by lying) the *conditions* for the free exercise of rational agency. The corresponding claim would then be that not only does enhancement *not* destroy these conditions, it also helps develop and fosters them.

<sup>19</sup> Applying Kantian moral philosophy to genetic engineering, Gunderson [15] argues for a similar claim.

<sup>20</sup> Meyers's [1] example of "Samantha," who uses cognitive enhancement to help her write a book, illustrates this point nicely: the drugs help Samantha concentrate, but the ideas are still hers. This is the kind of enhancement that is under discussion in this paper. As Murray notes ([28]: 514), in considering the permissibility of enhancement we should take into account the meaning and purpose of the activities being enhanced, their social context, and other persons and institutions affected by the activities. From a Kantian perspective, it is hard to see what is wrong if a writer uses enhancers to help her complete her novel; it is easy to see that it would be wrong to take an enhancer just before entering a spelling bee competition, if the rules did not allow all competitors to do so, since it would amount to a form of cheating. (I thank an anonymous reviewer of this journal for the latter example.)

<sup>21</sup> Meyers [1] rejects this analogy on the grounds that there is a morally significant difference of *degree* between the enhancer and coffee, the former providing a significantly larger cognitive boost.

cognitive stimulant) but not a neuroenhancer, and Kantian ethics grants the permissibility of consuming caffeine. Moreover, in some respects, caffeine even seems worse than the enhancer in question. Caffeine can have side effects and cause withdrawal symptoms (unlike the enhancer, *ex hypothesi*). It can be addictive, as Kant himself noticed (Mrongovius 25: 1260; [29]).<sup>22</sup>

But the crucial question merits further analysis: Is enhancement a violation of one's humanity, or an instance of respecting it? Kant refrains from claiming that the use of stimulants such as nicotine and caffeine violates human dignity or uses humanity as a mere means. True, Kant repudiates the use of alcohol or opiates to the extent that they make the user senseless or irrational: such use amounts to a violation of human dignity. But, rather than decreasing a person's rational abilities, enhancement would improve one's mood or concentration (etc.), allowing people to be more aware and rational, hence more free. They would be more free in that their rational will would be more effective; they would be better at pursuing their aims and goals.

Kant recognizes the dangers of substances that alter our minds and behavior. He considers drunkenness to be wrong since it diminishes the person's rational agency and self-awareness, dulling the senses or creating a kind of delirium. Some substances violate a duty to oneself. This violation can occur in any of a number of ways: by making one too drowsy ("senseless"), leading to addiction, or blunting and hindering what Kant calls a person's "talents."

At the same time, Kant also recognizes an acceptable use of mind-altering substances. He argues that some of these substances can have good benefits for oneself and society by making one feel more courageous or sociable. Kant admires beer and wine for the ability to increase sociability and "merrymaking" (Friedländer 25: 510; [29]). Alcohol can be beneficial in that it gives us "the courage to carry out daring and great decisions," and he approvingly cites such use of alcohol (Mrongovius 25: 1252; [29]).

Kant praises self-rule and self-control. "In fact, it is a principal prerequisite of the mind to be in control of itself. Through the fantastical transport into raptures, the individual forgets his body and accustoms himself

to be beside himself" (Friedländer 25: 510; [29]). "Affectlessness (*apatheia*) ... in a mind that emphatically pursues its own inalterable principles is sublime ... because it also has the satisfaction of pure reason on its side" (*Critique of the Power of Judgment*, 5: 272; [31]). Although these passages imply the ethical prohibition of certain hallucinogenic or psychedelic drugs, they do not necessarily entail a condemnation of enhancing drugs that would give us *more* self-control, helping us endure and master our affects or emotions even better. Although Kantian ethics prohibits total inebriation, the neuroenhancers in question would not make users become senseless, but would instead promote self-control. Kant opposes the use of substances such as opium that weaken the "sensation of the senses" (Friedländer 25: 501; [29]; see also *Metaphysics of Morals* 6: 428; [19]), but enhancers could be effective without these side effects (*ex hypothesi*).

Kant distinguishes *natural* and *artificial* causes of the passions or emotions. Alcohol, for instance, falls under the unnatural kind (Friedländer 25: 619; [29]). Clearly, mood enhancers would be "artificial" and "unnatural" in this sense. However, this does not entail that Kantian moral philosophy prohibits them. Kant does not reject the use of artificial substances, but approvingly acknowledges "artificial" medicines that, like alcohol, rouse the passions, as well as other kinds that moderate them (Friedländer 25: 619; [29]). Enhancers would count as substances that likewise modify or (depending on the situation) moderate the passions.<sup>23</sup>

Kant holds that the use of substances is morally questionable if they either dull our sensations to an excessive degree, or become habit-forming. "One can even accustom oneself to sensations. Like tobacco, brandy, even poison ... and opium. These are pains, but one can nevertheless accustom oneself to them" and eventually find them agreeable, at the risk of habit-formation (Mrongovius 25: 1233; [29]). Note, however, that the (assumed) neuroenhancer is *unlike* these substances in the relevant respects. It is not initially disagreeable, then grown accustomed to, then met with indifference, and, at last, experienced as pleasurable. On the aforementioned assumptions (*ex*

<sup>22</sup> It is unconvincing to claim that caffeine is "natural" while an enhancing drug is not. As Nussbaum and countless other scholars have noted, such appeals to "nature" are rarely helpful ([30]: 372).

<sup>23</sup> An enhancing drug could either *intensify* a certain mood or emotion (e.g., joy) or moderate it (e.g., anxiety). Whether or not such alteration would count as enhancement depends on the particular circumstances.



*hypothesi*), enhancement is not even habit-forming. Moreover, the enhancer would not “dull” the minds of users as do substances like alcohol or opiates; it would modify or alter them as the persons desired. Although Kant extols the heartening powers of opium, he repudiates its *excessive* numbing of the senses. He thinks that many “talents” have become “blunt” through alcohol-induced inebriation (Friedländer 25: 510; [29]). Such senselessness or drowsiness diminishes that part of our embodied rationality that gives us our “humanity” in the subjective sense of sensibility and embodiment (not to mention a loss of reason and rational agency). It is not clear that a neuroenhancer would have this effect on sensibility.

The notion of selfhood is also crucial to the debate, even if a full examination of selfhood lies beyond the scope of this paper. An enhancer would help a person do what he or she really, deep down, desires to do. Enhancers would allow the user to make better decisions, to focus, concentrate, and fulfill her goals more efficiently, helping her achieve success better or become more content. Consider (to take another example of the kind of use under discussion in this paper) a person who (like Meyers’s “Samantha”) wishes to study but finds herself under-motivated to do so. Her “genuine” self wants to study, but could benefit from some assistance. Taking the cognitive enhancer would allow her to achieve her goals. Nick Bostrom arrives at a similar conclusion (though without the Kantian context) when discussing a person’s taking the drug Paxil: “The more this choice represents her deepest wishes and is accompanied by a constellation of attitudes, beliefs, and values on which availing herself of this drug is part of her self-image, the more we may incline to viewing the Paxil-persona as her true self, and her off-Paxil persona as an aberration” ([32]: 182). The enhancer helps her become closer to the person she actually desires to be. It helps liberate her authentic self from its natural or external constraints, thereby enhancing her freedom ([27]: 102).

In short, employing neuroenhancement to help a person become rid of psychological barriers to performing an action or fulfilling a goal does not make her less free to exercise her will (in its particular social contexts), but instead more free, in that her will would be more effective.

The opposing position maintains that the foregoing *pro* position reveals a fundamentally flawed understanding of dignity and autocracy. Its first objection

claims that enhancement violates a duty to respect persons as ends in themselves, while the second objection concerns self-control. Let us examine both of these.

## Two Objections<sup>24</sup>

The first objection claims that enhancement would violate a duty to oneself and would not respect the “humanity in one’s person.” There is textual support for this position. According to one of Kant’s lectures on anthropology, he is reported to have claimed: “Thus a merchant who does not want to think about his account books, tries to get rid of the sensation through distractions, or if one gets rid of this sensation by means of opium, or drinking, but it will then later surely return even more intensely. Therefore, whoever tries to get rid of his sensible sensations, *acts contrary to the humanity in him*” (Friedländer 25: 596; [29]; emphasis added). Kant appears to express two concerns in this passage. First, the use of opium or alcohol simply is not efficacious: the problem the person is trying to avoid returns more intensely. Since this appears to be more a matter of prudence in the use of enhancers than of Kantian duty, we can set it aside here. The second point is more significant: taking a mind-dulling substance, trying to get rid of sensible sensations, Kant claims, does not respect the agent’s humanity. Moreover, it is a diversion, an escape. Mood and cognitive enhancement, it could be claimed, violates the humanity in one’s own person, i.e., the dignity of rational agency as an objective end in itself. In other words, “humanity” implies more than the reciprocal freedom of consenting adults: it also imposes limits on the uses to which one may put one’s own capacities, and enhancement goes beyond such limits. In a parallel passage about stimulants, Kant repudiates the need for “certain mechanical means in order to brighten up the mental powers, for example, drinking coffee late” and considers caffeine to be a cause of over-attentiveness or “hypochondria” (Mrongovius 25: 1307; [29]).

<sup>24</sup> It is worth recalling that this paper concerns amoral or non-moral aims such as happiness, health, and success, and passes over the topic of moral improvement, though moral enhancement is an important ethical issue and merits its own discussion (e.g., Sorensen [33]). Chatterjee [11] for instance asks, “If struggle is important to the development of character, does the use of pharmacological interventions to improve cognition or modify affect undermine this process?”

Now, it should first be observed that this appeal to a duty to humanity will not convince those authors (e.g., [32]) who are skeptical of using the concept of dignity (or inviolable respect for humanity and rational beings) in applied ethics. But since the method of this paper is to use the general principles of Kantian ethics, and the concept of dignity is central to Kantian ethics, this is not a sufficient response to the objection. It is hard to deny that Kant thinks that the aforementioned use of opium or alcohol runs counter to the person's humanity. But, are there important and significant differences between such use and neuroenhancement?

If we are to show that Kantian ethics does not justify the prohibition of mood/cognitive enhancement, it must be shown that enhancement is, in the relevant respects, dissimilar to the noted use of mind-dulling substances like alcohol or opium, and one must explain how the enhancer does not share the shortcomings of the stimulant Kant refers to in the second passage. This can be shown. While an enhancer is admittedly a "mechanical means," it does not dull one's sensations beyond recognition, as does the opium or alcohol that Kant repudiates. Moreover, the enhancers are not abused (and are, *ex hypothesi*, non-addictive). And unlike the late night coffee, the enhancer, as assumed, does not have adverse side effects such as over-stimulation. Such "hypochondria" is what primarily concerned Kant in the passage above (Mrongovius 25: 1307).

It is true that some passages seem to imply that Kant would consider enhancement *ineffective*. For instance: "As long as medicine only has mechanical and chemical means of bringing life into motion, and does not try to bring the mind into motion by pneumatic [i.e., spiritual, animated] means, its prospects are thus still very poor ...; hence one must try to enliven the first lifespring of the mind. Therefore, with a sick person, a good, bright friend will accomplish more than all prescriptions, for these touch only the surface of the body, but the enlivening of the mind penetrates to the principle of life" (Friedlander 25: 605; [29]). But this passage concerns effectiveness and efficacy ("accomplish more") rather than ethical permissibility. (Moreover, it should be noted that, technically speaking, it discusses medical treatment rather than enhancement.) While it may (or may not) be true that talk therapy and friendship are more effective means of healing the sick, this does not imply that mechanical-chemical means are unethical.

Yet another passage seems to support the *contra* view, at least at first glance. "Hence *Stoicism* (*sustine et abstine*) belongs, as the principle of a regimen, to practical *philosophy* not only as the *doctrine of virtue* but also as the *science of medicine*. – Medical science is philosophical when the sheer power of man's reason to master his sensuous feelings by a self-imposed principle determines his manner of living. On the other hand, if medical science seeks the help of external physical means (drugs or surgery) to stimulate or ward off these sensations, it is merely empirical and mechanical" (*The Conflict of the Faculties* 7: 100–101; [20]). However, Kant is merely classifying different kinds of "medical science," namely, the philosophical and the empirical or mechanical. Once again, he is not claiming that the latter is unethical. This passage does not imply that enhancement would be impermissible, but only that it would not be "philosophical" in Kant's sense: neuroenhancement would count as a kind of physical and mechanical (even if willed) re-direction of feelings and inclinations.

Two additional points can be made in response to the first objection. First, there are other passages which seem to entail the *permissibility* of enhancers. For instance: "Sometimes the doctor undertakes to produce an effective, healthful medication that will help the body by working directly on the mind, cheering it up or alleviating worries *by suppressing, or even by stimulating, affects* .... This is so far from being censurable that it rather deserves to be extolled with greater praise" (*On the Philosopher's Medicine of the Body* 15: 946; [34]; emphasis added). While the passage appears to concern therapy rather than (mood) enhancement, it could be extended to apply to enhancement.

Second, and perhaps more importantly, Kant's actual statements are not always accurate expressions of, or even consistent with, his ethical principles. His statements sometimes run counter to his own ethical principles and to contemporary moral intuitions. One can see that Kant was not always true to his own theory by looking at his views of marriage, sexuality, masturbation, or sex ([25]: 237). It may be that some of his pronouncements are as misguided as his stated views of tattooing.<sup>25</sup> Once several assumptions concerning the safety and allocation (etc.) of enhancers are granted (see

<sup>25</sup> Kant suggests that tattooing is unethical on the grounds that it uses the human being as a mere means, namely, as artful decoration (*Critique of the Power of Judgment* 5: 230; [31]). Yet it is not hard to imagine a compelling argument that some instances of tattooing do not violate Kantian ethical principles.

"Assumptions and Kantian Ethics" section, above), it seems that enhancement does not violate the Kantian ethical principle that we should respect rational agency and human dignity.

The second objection concerns self-control. Kant believes we should not attempt to get rid of our "sensible sensations" (intense moods, affects), but rather to control them. If we are unable to accept them in Stoic fashion, we should try to overcome obstacles and adversities, including our affective frailties and cognitive weaknesses. Even if opium or intoxication were effective in handling stress or adversity, Kant's moral philosophy would still consider it ethically impermissible, the objection goes, because it manifests the wrong attitude toward handling one's embodied rationality. Kantian ethics implies that agents should overcome their problems and obstacles by resistance and effort. Enhancement is incompatible with overcoming cognitive and psychological obstacles by strength of will. Learning, memorization, decision-making, and being in a good mood should be a result of our own efforts, not enhancement. If a person takes a pill, *she* is not really doing the work – rather, the pill is doing the work for her.<sup>26</sup> Like the Stoics who influenced him [30], Kant thinks we should struggle with life's difficulties. He thinks that agents should bear a good attitude and frame of mind, and overcome by strength of will any misfortunes or tragedies. There is textual support for this objection, too. Kant holds that it is good for humans to endure "adversities" and not become impatient with "every little incident" (Friedländer 25: 568; [29]). Accordingly, Kant considers it wrong to get rid of the reflective sensation of the ills or put them "out of mind" through alcohol or opiates. Kant thinks we need mental or spiritual force to resist and counter the temptation to lose ourselves in intoxicating substances. When one has so many occasions for alcohol, then "true resistance" of reason, perhaps with the aid of a moral or "rational" religion, is required to avoid intoxication (Mrongovius

<sup>26</sup> Although Bostrom defends enhancement, he expresses some (but only some) sympathy for this point about self-overcoming. "Perhaps it would be *slightly preferable*, from the point of view of Dignity as a Quality [which he adopts from Hungarian philosopher Kolnai], if the better mood resulted from a naturally smiling temperament or *if it had been attained by means of some kind of psychological self-overcoming*." But he then adds his pro-enhancement view: "But if some help had to be sought from a safe and efficacious pill, I do not see that it would make a vast difference in terms of how much Dignity as a Quality could be invested in the resulting state of mind" ([32]: 190; emphases added).

25: 1250; [29]; cf. *Anthropology from a Pragmatic Point of View* 7: 170-171; [34]). Expressing a similar objection, Schulman maintains that we need our feelings of love, sympathy, and curiosity in order to have dignity. "Would it not be a corruption of our humanity and an affront to human dignity to modify the brain so as to make a person incapable of love, or of sympathy, of curiosity, or even of selfishness?" ([9]: 17). Would it be compatible with human dignity for us to take a drug that suppresses the fear of death? It appears that the problem here is not (or at least not only) that enhancement would alter "human nature" (here, the disposition standardly to feel these emotions). It is rather that, since there is something valuable in *overcoming* such negative emotions and weaknesses, the latter should not be removed or diminished.

First, it should be pointed out that one of the arguments in *favor* of enhancement drew from the notion of self-control. In other words, neuroenhancement could be said to provide *more* self-rule, to enable better or more efficient handling of negative moods and cognitive obstacles. It is not necessary to repeat that argument here, but is sufficient to note that there is more than one way to appeal to the concept of self-control. Second, while Kant denies that a being's possessing dignity *necessarily* requires that being to have negative emotions, feelings, or weaknesses (one could imagine dignified, non-human, rational organisms without these), Kant would grant, indeed insist, that these feelings will be combined or found together in a human being. Neuroenhancement will not completely get rid of emotions such as fear, dread, or anxiety. There would still be plenty of adversities to surmount, weakness to improve, and feelings to control. Mood enhancers would not get rid of *all* suffering. Kant recognized that life on balance contains much suffering, perhaps even more than it does pleasure and enjoyment (Mrongovius 25: 1319; [29]). If life is assessed merely by what one enjoys (the natural end of the "sum of all inclinations," happiness), then its value for us is "less than zero" (*Critique of the Power of Judgment* 5: 434n; [31]). If the naturally-given aim of human existence were happiness, then "nature" (a term used with the necessary Kantian strictures about teleological reflective judgment) did a poor job of realizing this aim, since so many human beings are unhappy. Though this point is perhaps not a key Kantian *ethical* principle, it certainly seems relevant to the present question. If that is right, mood neuroenhancement is unlikely to

overturn the scales in favor of contentment and happiness. There will still be plenty of suffering, adversity, and opportunities for self-overcoming.

## Conclusion

I have explored whether Kantian ethics would endorse mood and cognitive neuroenhancement. My analysis identified some key possible assumptions, for instance, that the enhancers were safe and effective, non-addictive, relatively cheap, and accessible or allocated in a just way and without inducing coercion. Whereas the first step in my argument did not grant these assumptions, the second step did. The corresponding facts in the real world concerning such matters, whatever they may be, should surely be taken into account when addressing the general permissibility of neuroenhancement, and when formulating public policy and regulation. When these assumptions are not granted or if they are not met in reality, Kantian moral philosophy would consider neuroenhancement to be ethically prohibited. The first step in the foregoing argument concerns important questions about social and distributive justice, especially concerns about fair access and coercion (express or implicit). However, a more controversial ethical question concerns what happens when the assumptions are granted: in that case, Kantian ethics would consider enhancement permissible. Nevertheless, two objections can be raised, and I have addressed them.

I have described what Kantian ethics would say about neuroenhancement, but I have not attempted to *assess* whether this is the most attractive and plausible ethical position, nor how it squares with our most prominent or appealing moral intuitions and principles. I have also not addressed legal or practical matters concerning how we might regulate the safety of neuroenhancers, ensure fair access, or reduce coercion. Such topics remain open for future discussion.<sup>27</sup>

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