Moral Transhumanism: The Next Step

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Although transhumanism offers hope for the transcendence of human biological limitations, it generates many intrinsic and consequential ethical concerns. The latter include issues such as the exacerbation of social inequalities and the exponentially increasing technological capacity to cause harm. To mitigate these risks, many thinkers have initiated investigations into the possibility of moral enhancement that could limit the power disparities facilitated by biotechnological enhancement. The arguments often focus on whether moral enhancement is morally permissible, or even obligatory, and remain largely in the realm of the hypothetical. This paper proposes that psilocybin may represent a viable, practical option for moral enhancement and that its further research in the context of moral psychology could comprise the next step in the development of moral transhumanism.

Keywords: empathy, moral enhancement, psilocybin, psychedelic, transhumanism

I. INTRODUCTION

Transhumanism has come to encompass a vast array of modalities for humanity’s future evolution. Whether it is the pursuit of superior athletic performance (Miah, 2006), the quest for immortality and perfect health (de Grey, 2003), or the cybernetic dream of human–machine interfacing (Kurzweil, 2006, 194–5), transhuman ideals challenge quotidian notions of human nature and identity, expanding the idea of the self to embody higher physical and mental capacities. Scientific progress in general and transhumanism in particular generate profound ethical concerns, which cause some commentators to recommend that we enhance morality itself (Persson and Savulescu, 2008; 2010). The promise of moral enhancement is twofold, as...
the phrase can be read two different ways: first, the capacities for moral deliberation and action could be enhanced; and second, the larger project of human enhancement could become a moral enterprise itself. So far, this ideal has remained a hypothetical clarion call, with few concrete suggestions for implementation. In this paper, I will outline the ethical issues posed by transhumanism, summarize the argument for moral transhumanism, review the literature evaluating this position, and propose a new method for its conception and manifestation.

II. ETHICS OF ENHANCEMENT: OVERVIEW

A. Consequential Concerns

Although discussions about the ethics of human enhancement have certainly evolved over the past decade, Beyond Therapy: Biotechnology and the Pursuit of Happiness, issued by the President’s Council on Bioethics (PCB) in 2003, remains a relevant starting point for summarizing the key issues. As with any health-oriented intervention, one of the first concerns of enhancement is the safety of those to be enhanced. The PCB notes that those who try to perfect their minds and bodies with steroids, Ritalin, or “mood-brighteners” do so at the risk of unanticipated, short- and long-term effects (280). Tantalizing and revolutionary gains threaten to overshadow the importance of safety, and we must be wary of neglecting precaution while being dazzled by the luminescence of biological transcendence.

Another potential consequence of human enhancement is the exacerbation of unfairness on the social plane. Just as steroid use arguably gives athletes an unfair advantage in sports, many enhancement technologies are intended to offer positional advantages. Fritz Allhoff et al. highlight some examples:

A job candidate with a neural implant that enables better data retention and faster information processing would consistently beat out unenhanced candidates; a person with super-human hearing or sight could circumvent existing privacy protections and expectations by easily and undetectably eavesdropping or spying on others; more students (and professors) using Ritalin may grab admission or tenure at all the best universities, reducing those opportunities for others; and so on. (Allhoff et al., 2009, 24)

On the other hand, enhancement could be used to rectify the biological roulette that, for example, produces the unfairness of disability, in effect leveling out the already slanted playing field. Yet this putatively compassionate prospect itself arguably promotes unfairness by implicitly advocating “coercive normalization” (Bradshaw and Meulen, 2010, 672).

The problem of unfairness largely rests on concerns of equality. Francis Fukuyama writes that “the most serious political fights in the history of the United States have been over who qualifies as fully human,” as marginalized
populations often lack a political voice and certain rights enjoyed by others (2004, 42). The positional advantages conferred to the enhanced may provide a source of leverage for claiming additional rights or powers. Moreover, “if, as is often the case with expensive medical care, only the wealthy and privileged will be able to gain easy access to costly enhancing technologies, we might expect to see an ever-widening gap between ‘the best and the brightest’ and the rest” (PCB, 2003, 281–2). Even if market tendencies cause the price of enhancement technologies to diminish over time, those with early access may have already had time to secure an insurmountable head start on establishing positional advantages. Many have discussed the biopolitics of whether, and if so, how, to regulate as well as ensure access to such novel biotechnologies, but this issue is far from settled (Bostrom, 2005; Hughes, 2009).

The PCB also raises questions about whether enhancement technologies could affect our freedom to autonomously pursue our own ends (283). Despite the largely libertarian (More, 2003) and democratic (Hughes, 2009) outlook professed by transhumanists, subtle forms of coercion may emerge if enhancement becomes widespread. One may feel forced to enhance oneself in order to remain competitive in academics or a career. Parents may feel obligated to enhance their embryos or children to avoid appearing neglectful (PCB, 2003, 284). This risks narrowing the possibilities of acceptable standards of living and development into a homogenized state of subtly coerced conformism. For example, Robert Sparrow argues that the utilitarian perspective requires parents to engineer their children according to the prevailing bigotries of the day: If the child is born into a racist culture that demonizes dark-skinned people, then the parents would have an obligation to select for lighter skin in order to maximize the child’s chance of happiness (2011, 35). If sufficiently widespread, genetic homogenization could also render the human species vulnerable to extinction by a major cataclysm.

B. Intrinsic Concerns

Technological development often invokes the warning that the appropriate purview of humanity lies in respecting the “giftedness” of reality by not “playing God.”

To acknowledge the giftedness of life is to recognize that our talents and powers are not wholly our own doing, despite the effort we expend to develop and to exercise them. It is also to recognize that not everything in the world is open to whatever use we may desire or devise. Appreciating the gifted quality of life constrains the Promethean project and conduces to a certain humility. (Sandel, 2004, 54)

Although this argument is generally referred to as “playing God,” Sandel extends it beyond the bounds of theology to critique the drive to master nature, which exhibits the cognitive and moral hubris of “hyper-agency.” However, in a sense, the Promethean analogy also serves to undermine his argument: Although the gods punished Prometheus for his theft of fire, today
we generally find the use of fire morally inert. Of course, the mythological lesson can extend beyond the literal use of fire, but activities that appear to manifest inappropriate hubris in one time and place may be perfectly acceptable in another. Thus, advocating for humility is certainly a noble cause, but no consensus exists on what actually constitutes a humble approach to scientific progress.

A common method for clarifying this problem involves appealing to the “natural.” One way to do this is to say that nature evolutionarily perfects forms of life and that interfering with this process is intrinsically unnecessary and even immoral. Harkening back to Aristotelian teleology, proponents contend that forms of life evolve unique goals and capacities for self-direction and that they develop this way because they should; thus, disrupting the duty of something to attain its natural ends has moral significance (Kass, 1985, 254–7). The PCB extrapolates this into the realm of human activity, arguing that enhancement could undermine the natural relationship between deed and accomplishment (2003, 292). Accordingly, using steroids to achieve greater muscle mass “cheats” the normal process of experience and intelligibility that naturally attends physical exercise. However, many scientific advances reframe the relationship between effort and accomplishment in ways that are not only morally acceptable, but even obligatory. For example, the advent of modern medicine changed the natural relationship humans have to the accomplishment of “naturally” fighting off disease; medicine also arguably disrupts the evolved teleological propensities of disease-causing bacteria; yet we generally agree that the “unnaturalness” of medicine does not make it immoral.

This potential for the disruption of the natural process of achievement also threatens our individuality and authentic identities, according to the PCB (2003, 293). They argue that the prospect of gaining more power and control over one’s mind and body risks “self-alienation,” in that enhancement could transform one from being an autonomous, active agent into a passive recipient of externally engineered states of being (PCB, 2003, 294). Thus, transhumanism discussions must address what it means to be authentically oneself and how this relates to the potential compromises of autonomy that arise in the wake of using new technologies.

This discussion should prompt one to step back and examine what is meant by “progress,” “enhancement,” and making things “better.” When we imagine what we want for the future for ourselves, our children, and the collective, do transhuman enhancements actually move us toward that? If transhumanism marches on without pausing to ponder such questions, the future may resemble dire warnings like the following:

An increasingly stratified and inequalitarian society, now with purchased biological enhancements, with enlarged gaps between the over-privileged few and the under-privileged many; a society of narcissists focused on personal satisfaction and
self-regard, with little concern for the next generation or the common good; a society of social conformists but with shallow attachments, given over to cosmetic fashions and trivial pursuits; or a society of fiercely competitive individuals, caught up in an ever spiraling struggle to get ahead, using the latest biotechnical assistance both to perform better and to deal with the added psychic stress. (PCB, 2003, 302)

III. MORAL TRANSHUMANISM

A. The Problem

Debates about the moral legitimacy of human enhancement, regarding both intrinsic and consequential concerns, often hinge on its relationship to contemporary institutions and uses of technology that we putatively agree to be morally sound. In a sense, we already enhance ourselves through activities like education, diet, and using medication, so what distinguishes transhuman enhancement? Arguments that biotechnological enhancements represent extensions by degree of these morally acceptable manifestations of human progress generally claim that the new is enough like the old that it does not require a significantly revised moral critique (Agar, 2004, 113; Harris, 2010, 2). Others maintain that transhuman enhancement deviates in kind and its moral evaluation must be separated from that of traditional enhancements, such as “reading a book, eating vegetables, doing homework, and exercising” (Allhoff et al., 2009, 8).

Erik Parens (1995, 173) summarizes the difference by degree argument as “we’ve always done it (and everything’s been okay).” In a recent exploration of the modern, reprogenetic manifestations of this argument, Erik Malmqvist posits that technologies like in vitro fertilization, prenatal genetic diagnosis, germ-line genetic modification, and cloning differ from institutions like education in kind and thus reprogenetics indeed needs a separate moral evaluation (2011, 44–8). He argues that education is largely process oriented, in contrast to reprogenetic technologies aimed at selecting or engineering desired end states, and thus focuses on attacking the “by degree” argument (2011, 44). Yet, whether we agree that human enhancement is an extension of or deviation from the goals and applications of science that people tend to agree are morally sound, we should still consider the consequent expansion of risk associated with scientific advance.

Biotechnological science enables the actualization of high-magnitude risks to individuals and societies, from eugenics and Nazi experimentation to atomic weapons and environmental pollution. Ingmar Persson and Julian Savulescu argue that cognitive enhancements and their potentiation of the speed of scientific advance greatly expand the capacity for these high-magnitude risks to be exploited (2008, 166). As evidence for the ills that technological development has brought into the world, they cite the risk of active malevolence in the use of weapons of mass destruction and the passive neglect of the needs...
of developing nations and the environment (Persson and Savulescu, 2010, 663–5). They state that we should not be lulled into complacency by the low probability of, for example, a bioterrorist attack, because its high magnitude could potentially outweigh the variable magnitude, but high probability, of beneficial effects of scientific progress (Persson and Savulescu, 2010, 662–3). Although scientific progress is not bad in itself, its pace, if radically increased by transhuman enhancements, portends the risk of intellectual development drastically outstripping that of morality.

One possible solution is that cognitive enhancement and scientific progress should be counterbalanced with the research, development, and implementation of moral enhancement (Persson and Savulescu, 2008, 167–73). As an analogy, Persson and Savulescu note that, in particular, martial arts students learn not only the skills for fighting, but the restraint to use them appropriately; “In the same way, moral enhancement should accompany cognitive enhancement, since the latter is a means that could be put to both good and bad uses” (2008, 174).

B. The Literature

Thomas Douglas posits that the usual arguments for the moral impermissibility of enhancement fail when morality itself is the capacity to be enhanced. Although moral enhancement may exhibit a lack of appreciation for the given, the “giftedness of life,” it does not follow that this enhancement is immoral; rather, those given aspects of reality that impede moral behavior should be seen as in need of modification (Douglas, 2008, 235). The fact that this modification is, in this case, biotechnological, does not preclude supplementary moral enhancement through more conventionally accepted means, like education.

The objection that moral enhancement is unnatural, again, depends on how we construe the natural. If “unnatural” means “unusual,” the changing norms of what humanity considers usual demonstrate that although emerging technologies are unusual, or novel, this fact says little about whether they should be used. If it means “artificial,” then we still need arguments demonstrating why artificial activities must be avoided (Douglas, 2008, 237–8). Other objections include claims that such enhancement could unduly alter one’s identity and that one’s freedom may be constrained by limiting the presence of impulses or the capacity to act on a full range of impulses. Regarding the former, Douglas contends that moral identities change all the time, sometimes dramatically in response to particular experiences, so enhancement would not represent a discontinuity from normal possibilities; to the latter, he states that the presence of immoral impulses actually limits the freedom to autonomously exercise the moral self, and enhancement thus increases freedom (2008, 239–40).

The Genetic Virtue Project (GVP) takes this a step further, involving philosophers, psychologists, and geneticists in the exploration of the ethics
and feasibility of genetically engineering virtue. Arguments in favor of the GVP do not discount the environmental factors, such as parental influence and the socio-political landscape, which are integral to developing virtue. Rather, they acknowledge the role of “nurture” factors while simultaneously advocating for getting involved in “nature” elements (i.e., genetics) as well (Walker, 2009, 43). Even if genetic manipulation is morally suspect, the fact that research into amoral enhancements of capacities like intelligence is already underway suggests that accompanying this with moral enhancement is desirable.

If genetic markers can be successfully correlated with virtue, another option that circumvents some ethical issues surrounding enhancement emerges. In the way that parents use prenatal genetic diagnosis to screen embryos fertilized in vitro for inherited diseases, parents in the future may be able to locate and select for virtue-inducing genes in their potential offspring (Faust, 2009, 397). This method arguably could not possibly alter anyone’s freedom or identity, because no genetic alterations would be made to the embryos; rather, parents would simply have the option to select for those that already contain these genes (Faust, 2009, 414). Questions still remain, however, as to whether this type of enhancement could be perceived as morally obligatory or unduly influenced and, if so, the risk of homogenizing the population remains.

Some research has already bridged the lacuna separating hypothetical discussions from actual experimentation. Research on innate moral decision making in animals suggests that the neurological systems underlying morality could be enhanced (Singer and Sagan, 2012). In research on human subjects, inhibiting serotonin reuptake has demonstrated that serotonin plays a role in moral judgment and behavior, correlating with empathy and aversive emotional reactions to perceived harm (Crockett et al., 2010). Similarly, oxytocin administration is correlated with the promotion of prosocial, empathetic behavior, including traits and virtues such as trust, trustworthiness, generosity, and sacrifice (Zak, 2011, 62). These studies provide preliminary evidence that augmenting the presence of particular chemicals in the brain indeed appears to enhance moral decision making in some situations.

C. A Proposal

Recent studies suggest that psilocybin, a psychedelic compound found in many species of mushrooms, may comprise another possibility for moral enhancement. In 2006, a double-blind study compared the acute and long-term effects of psilocybin and methylphenidate. Psilocybin was shown to facilitate the classical “mystical experience,” consisting of changes to cognition, mood, and perception, which two-thirds of the subjects reported two months later as either among the top five most meaningful or the single most meaningful event in their lives (Griffiths et al., 2006, 276–7). Subjects
also reported, and community observers corroborated, that as a result of the psilocybin experience, they experienced lasting positive changes in outlook and behavior, including “altruistic/positive social effects” (Griffiths et al., 2006, 278). Fourteen months later, the researchers followed up with a study of persisting effects. 61% of subjects reported sustaining “moderate to extreme positive behavior change” as a result of the psilocybin experience, specifically reiterating the continuation of altruistic and positive social effects (Griffiths et al., 2008, 626). Subjects reported having specific insights, such as the nature of unconditional love, self-transcendence, unity, mortality, and empathy, during the psilocybin-induced mystical experience that correspond with these effects (Griffiths et al., 2008, 629).

The researchers explored this phenomenon further in 2011, this time focusing on dose-related effects (Griffiths et al., 2011). During the course of five sessions, each separated by one month, healthy subjects received four ascending or descending dosages of psilocybin and one placebo dose. Subjects reported on the experiences immediately after each experience, at one month after each experience, and then fourteen months later. Again, among other criteria, subjects reported significant increases in altruistic and positive social effects that corresponded in intensity with the dosage and endured through the fourteen-month follow-up (Griffiths et al., 2011, 659). In an open-ended survey of behavioral changes that the subjects experienced in the fourteen months after the study, reports included changes such as decreases in judgmental attitudes, better relationships with others, increases in empathy, increases of mindfulness practices like meditation, and increases in openness and acceptance (Griffiths et al., 2011, 662).

A study of the data emerging from these studies found that the high-dose psilocybin experiences caused persistent increases in the personality trait of openness (MacLean, Johnson, and Griffiths, 2011). Openness is associated with various capacities and behaviors, including creativity, imagination, aesthetic aptitude, and “awareness of feelings in self and others” (MacLean, Johnson, and Griffiths, 2011, 1459). Although openness does not necessarily directly correlate with moral reasoning or behavior, the heightened awareness of feelings likely correlates with the reported insights into empathy and the resulting altruistic behavioral change.

Distinguishing between moral enhancements that would engineer character traits and those that would shape character itself, Fabrice Jotterand posits that the enhancement of traits might enable greater control of outward moral behavior, but it would “not necessarily encompass the moral significance of character in moral philosophy” (2011, 7–8). Beyond its external manifestation as traits and behavior, character inheres in identity, autonomy, and agency as an internal moral fortitude from which behavior originates (Jotterand, 2011, 8). Thus, to simply enhance a trait is to risk engineering a discontinuity between one’s internal moral states and external moral actions, potentially compromising both authenticity and the freedom to act on one’s
inner convictions. Although psilocybin has been shown to increase the trait of openness, the data appear to show that the psilocybin-induced mystical experience first initiates a transcendent inner illumination that in turn catalyzes the outward expression of altruistic behavior, and thus psilocybin may holistically enhance both indwelling character and the external manifestation of character traits.

Psilocybin research is now burgeoning in various basic and applied contexts. Scientists recently studied the neurological effects of psilocybin with fMRI and found that the drug holds potential as a treatment for depression and as an aid in psychotherapy (Carhart-Harris et al., 2012a; 2012b). Researchers have also found psilocybin to be promising as a treatment for the existential anxiety faced by patients with advanced-stage cancer (Grob et al., 2011). Subjects reported that the experience catalyzed introspection and emotional insight into their lives, relationships, and illnesses; they also showed sustained mood improvement after six months (Grob et al., 2011, 77). Current studies at Johns Hopkins Medicine (JHM, 2012) and New York University (NYU, 2012) seek to verify and expand this finding. Another potential option for further research is to focus on (1) the connection between the psilocybin-induced mystical experience and the resulting increases in empathy and altruism; and (2) whether the drug could reliably produce moral enhancement.

Scientific, legal, philosophical, and bioethical issues remain about the theoretical and practical use of psychedelics like psilocybin as moral enhancements. Although the physiological risks of psilocybin use are minor, psychedelics carry the risk of causing a “bad trip,” including experiences of paranoia, fear, panic, and anxiety (Johnson, Richards, and Griffiths, 2008, 607). Johnson, Richards, and Griffiths outline guidelines to minimize the probability of these risks occurring, including the preparation of the staff, the subjects, and the physical environment, criteria for selecting subjects, and the protocol for both the session itself and follow-up, concluding that “with such safeguards this class of compounds can be studied safely in humans” (2008, 608–16). In an analysis of twenty-three psilocybin studies, other researchers identified the primary determinants of the type of psilocybin experience subjects will have (Studerus et al., 2012). They concluded that drug dosage has the highest effect, followed by other elements of “set and setting,” including “personality, current mood, psychopathology, drug pre-experience, demography, and environment” (Studerus et al., 2012, 10).

Despite these safeguards and advances in knowledge, the ambiguity of potential benefits and the restrictive legal status of psilocybin and other psychedelics may impede institutional review board (IRB) approval of studies designed to investigate their potential. If approved, will studies of the moral psychology of psilocybin use corroborate its hypothesized potential for moral enhancement? If so, in what setting could the drug ultimately be
administered? Psilocybin’s legal status would likely play a significant role in attempts to use it in professional mental health interventions, let alone in the case of healthy, responsible adults seeking moral enhancement. As a result, it may be most pragmatic to wed the practical use of such an enhancement to the robust methodology currently used in clinical trials. That is to say, if they come to pass, psilocybin enhancement sessions in the future should mirror the research protocols that ensure safe, guided administrations in an outpatient context, rather than be treated as prescribed, or even over-the-counter, medications. If psilocybin enhancement were to occur under the auspices of the medical profession, what medical condition would indicate a need for such enhancement, if any at all? In order to imbed moral enhancement into the transhumanist ethos, should those seeking positional enhancements first be screened for conditions indicating a lack of empathy and be morally enhanced if necessary?

Further studies may also help to address philosophical considerations. Do psilocybin’s effects on morality accord with any philosophically robust theories of morality, such as virtue theory? Are pharmacologically induced mystical experiences or their persistent effects authentic? Does changing core personality traits in this way undermine the continuity between deed and achievement, internal states and external behavior, or otherwise make the subject a different person? If psilocybin indeed enhances morality, does it decrease the freedom to act otherwise? Is it unduly playing God or tampering with human nature? Could moral enhancers cause individuals to become overly empathetic or trusting?

IV. CONCLUSION

Undoubtedly, technological progress has improved the welfare of humanity in myriad ways: The technologies of agriculture, medicine, transportation, and computers, to name but a few, have become integral components of human life. Transhumanism may represent an extension by degree of “what we’ve always done” that is considered morally acceptable; but at the same time, the risks posed by technological development will also be extended. Moreover, if thinkers like Ray Kurzweil are correct, then the accumulation of risks and benefits by degree does not proceed in a linear fashion, but accelerates exponentially (2006, 7). Thus, if transhumanism is accepted as a desirable or inevitable extension of the role of science and technology in our lives, then we should consider enhancing more than just those aspects of ourselves that afford us positional leverage over others. Perhaps more importantly, we should consider enhancing the capacity for prosocial, moral development and behavior. Evidence emerging from recent studies of psilocybin suggests that this psychedelic may be such an enhancement, and research specifically targeting these effects could comprise the next step in moral transhumanism.
ACKNOWLEDGMENTS

The author would like to thank Nancy M. P. King, JD, and Wake Forest University’s Center for Bioethics, Health, and Society for supporting this conceptual research project.

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