

## Article

# Moral Bioenhancement through An Intersectional Theo-Ethical Lens: Refocusing on Divine Image-Bearing and Interdependence

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**Abstract:** This article begins with a brief interrogation of the meanings of moral and virtue. Next, an intersectional Christian theo-ethical lens focusing on humans as divine image-bearers is used to generate critical insights regarding the influence of extreme individualism on approaches to moral bioenhancement. This alternative lens emphasizes the interdependence of life, and the contextual character of moral dispositions. The question of what it means to be creatures bearing the *imago dei* and making moral choices, is at the center of this exploration. The author concludes that while there may be justifiable exceptions, for now moral bioenhancements are unwarranted. Moral improvement will be better achieved through more effective educational strategies, and possibly spiritual enhancements, that are geared toward appreciation for the interdependence of all life.

**Keywords:** choice; Christian theology; intersectional theology; justice; moral bioenhancement; theological anthropology; virtue

## 1. Introduction and Preliminary Considerations

Enhancement technologies are being developed and applied to several domains of human being: the physical, the affective, the cognitive, the spiritual, and the moral. Moral bioenhancement is not mere science fiction. Pharmaceutical agents used primarily to treat other conditions also seem to affect morality. Ethical issues related to the development and use of moral bioenhancements must be probed from several perspectives. The lens we bring to the moral enhancement discussion shapes the questions that we ask and our understandings of key concepts, including the following topics that are explored in this article: morality, virtue, being human, and choice.

This article is an overview of some ethical issues raised through the application of an intersectional Christian theological lens to moral bioenhancement. An intersectional theology prioritizes and brings together justice concerns identified by several theologies that are written from the underside including but not limited to: liberation, queer, racial, womanist, feminist, and disability theologies. Intersectional theology emphasizes the complexity and impact of systemic privilege and power on experience and ways of seeing the world. As theologians Grace Ji-Sun Kim and Susan M. Shaw explain, “the further [one is] from the norm, the greater the marginalization. This marginalization, however, is not simply additive, but rather social categories of gender, race, class, and other forms of difference interact with and shape one another within interconnected systems of oppression. These systems of oppression—sexism, racism, colonialism, classism, ableism, nativism, and ageism—work within social institutions such as education, work, religion, and the family...to structure our experiences and relationships in such a way that we participate in reproducing dominance and subordination without even realizing it” (Kim and Shaw 2017).

I begin with attention to preliminary issues regarding the meanings of “moral” and “virtue”. Next, I consider implications of humans as divine image-bearers to generate critical insights regarding the influence of extreme individualism on approaches to moral bioenhancement, emphasizing the interdependence of life and the contextual character of moral dispositions. The question of what it means to be creatures bearing the *imago dei* and making moral choices, is at the center of this exploration. I conclude that while there may be justifiable exceptions, for now moral bioenhancements are unwarranted. Moral improvement will be better achieved through more effective educational strategies, and possibly spiritual enhancements, that are geared toward appreciation for the interdependence of all life.

### 1.1. Moral Bioenhancement

Morality is a novel enhancement frontier. Proponents of moral bioenhancements hope that these biomedical technologies will better the world by improving moral reasoning, increasing prosocial behaviors, strengthening motivation to do good, and/or enhancing moral virtues. Well-known philosophers Ingmar Persson and Julian Savulescu advocate moral bioenhancement as a safeguard against the use of fast developing technologies that could be used to obliterate the planet. They reason that with the proliferation of technologies, and especially cognitive enhancements, we will have more opportunities and tools for inflicting mass destruction. Therefore, our collective sense of justice and inclination to care for each other need to be improved in order to minimize the possibility of such destruction. Certainly, if we consider war, genocide, and abuse to be moral failings, there is much room for moral improvement. The question is how best to do this.

Because moral enhancement interventions are biomedical, these enhancements are referred to as moral bioenhancements. Since morality is in part neurobiologically determined, morality can potentially be affected by pharmacological interventions. For example, there is behavioral, genetic, and neuroscientific evidence for the biological basis of aggression (Douglas 2008, p. 233). The drug Ritalin reduces impulsive aggression. Depending upon one’s definition of morality, Ritalin can also contribute to moral enhancement by sharpening one’s ability to focus and think more deliberately about problem-solving matters, including ethical analyses. The drug Modafinil may increase prosocial behaviors such as empathy, cooperation, trust, and concentration. The hormone serotonin increases aversion to harming others, as well as empathy. The hormone oxytocin increases prosocial behaviors such as empathy, cooperation, and trust.

Even if there was general agreement that aversion to aggression, and inclination to empathy, cooperation, and trust are desirable moral qualities, there are moral risks to these pharmacological agents. Oxytocin can make people more trusting, but it is not good to be more trusting in all situations (Jones 2013, p. 150). Oxytocin increases altruistic behavior and empathy but only towards in-group members (Jones 2013, p. 190; Persson and Savulescu 2015a, p. 338). As a result, their usage may increase global conflict by binding us closer to kin, possibly at the expense of appreciating others who are not kin.

There are also potential non-pharmacological moral bioenhancements. Deep brain stimulation (DBS), the less invasive transcranial magnetic stimulation (TMS), and transcranial direct current stimulation (tDCS) may increase cooperation (Piore 2015) and neuroplasticity, making it easier to learn prosocial behaviors. However, DBS, TMS, and tDCS may cause seizures or headaches, and may affect personal identity in unforeseen ways by changing thought patterns (Cabrera et al. 2014).

Although we use these biomedical technologies to treat various conditions, we lack consensus around how or if these technologies might improve morality. Morality is a very difficult concept to define. I am convinced that the main reason morality is difficult to define is its contextuality. For example, scholars including Inmaculada de Melo-Martin and Arleen Salles, and Michael Hauskeller (de Melo-Martin and Salles 2015; Hauskeller 2016) raise questions—as I will also discuss later in this article—concerning the desirability of “prosocial” qualities in all “moral” situations. As I will consider next, not all agree that morality is contextually driven to the degree that this contextuality presents

a barrier to moral bioenhancement. For example, Persson and Savulescu, and James J. Hughes, emphasize a set of general virtues that they see as desirable, to some degree, across all, or almost all, contexts (Persson and Savulescu 2012; Hughes 2013).

### 1.2. *How Do We Become More Moral? Problematizing the Conversation*

The meaning of moral enhancement is debated. Some ethicists, including Persson and Savulescu, and Hughes, focus on dispositional traits with an emphasis on virtues and resulting prosocial behaviors, as being key to morality (de Melo-Martin and Salles 2015; Persson and Savulescu 2012; Hughes 2013). Philosopher Thomas Douglas focuses on increasing moral motivation, or the motivation to do good (Douglas 2008). Bioethicist John Harris emphasizes the cognitive capacity to engage in ethical analysis or moral reasoning (Douglas 2008; Harris 2011). Philosopher Michael Hauskeller is more concerned with increasing knowledge of what doing good means, and what are good actions in particular situations (Hauskeller 2016). There is no clear distinction between cognitive and moral enhancement. Insofar as improved cognitive abilities such as concentration and clear thinking affect one's ability to engage in ethical reasoning, cognition is related to decision-making regarding moral matters. In fact, Hughes names the "intellectual" (includes open-mindedness and curiosity) as one of the four moral virtues that he identifies for enhancement. However, a strong ability to engage in ethical reasoning does not necessarily imply adequate motivation, knowledge, virtues, and discernment needed for congruent, contextually appropriate and strategic moral responses. For example, simply because I see that someone is in pain and I can reason that she needs medical or psychological help, this does not mean that I will assist her in getting help. It may be that I decide instead to exploit her vulnerability for my own benefit. Even if we are able to enhance a set of virtues including intellectual virtue, as Hughes proposes, we may not have sufficient knowledge and insight to understand the moral relevance of a multi-layered context to doing "the right thing". I am more persuaded by Hauskeller's argument that we first need to examine and learn more about what doing good means. Persson, Savulescu, and Hughes make strong cases for bioenhancing moral dispositions but, as I will explain, I am not persuaded that we have sufficient agreement or even awareness of the diversity of interpretations of the virtues.

Moral dispositions are comprised of qualities, virtues, and vices that form moral character, and that lead us to behave in certain ways given similar situations. For example, a person who is empathetic will usually be moved to care for a person who is in need across a variety of contexts such as work, home, or recreation. A person who is honest will be honest in most situations. On the plus side, virtues provide a general foundation for the development of particular responses to ethical situations. However, the enhancement of a virtue does not necessarily imply well-informed or well thought-out responses to a given situation. This limitation raises important questions: Can we ensure that virtue-enhancement will be paired with education regarding the unjust distribution of global resources and power? In other words, will we assist people to connect an enhanced moral disposition to ethical behavior? And who decides what virtues are needed by whom? Will the marginalized be given priority? The ethical framework or lens that we use to approach the moral bioenhancement issue will shape the questions that are asked. Complicating the discussion further, is the relationship between virtues and values. What values (e.g., the things we consider to be important to us) are expected and desired—often implicitly—to arise out of these virtues? Feminist, relational, and intersectional theorists have established the complexity of social processes that shape normative values (Sherwin 2012). What we think we value and desire most, may be things that we have unconsciously internalized from our social context, but may not be the values and desires that we would embrace in the light of clear, explicit analysis. We need greater clarity around what values we might hope will arise out of the enhancement of virtues.

Philosophers including Marcuse, Habermas, and Foucault have argued persuasively that enhancement technologies, including moral bioenhancements, reflect and promote the values of utility and efficiency (Marcuse 1964; Habermas 1971; Foucault 1988). The more dishwashers, food processors,

and specialty toasters we get, the more accustomed we become to expecting and wanting ourselves and others to get household tasks done quickly and efficiently, maximizing our time. This same technology-inspired expectation and desire can be applied to the workplace, sports (Trothen 2015), and other dimensions of our lives. Anyone or anything that fails to promote, or at least align with, the normative social values of utility and efficiency, is discarded. Philosophers Hubert Dreyfus and Sean Dorrance Kelly surmise that, paradoxically, in our drive to make life better by saving time and energy (not to mention making money), we have made it more difficult to find happiness and “shining moments” that inspire and uplift us (Dreyfus and Kelly 2011). Awareness of the social processes that have influenced these desires and values is necessary for critically determining the values that are consistent with adopted theological principles and related virtues.

The question of what makes one moral is foundational to what is morally enhancing. The social processes that shape desires, values, and virtues must be engaged critically if we are to understand the implications of increasing particular moral dispositions. Moral bioenhancements present possibilities for more caring and just global human communities, but only if we are cognizant of the power disparities and other contextual factors that impact the meanings of moral dispositions. Questions including how virtues are affected by context and by theoretical lens, must be probed and factored into the development and use of moral bioenhancements.

While there may be general agreement in principle on Hughes’ distilled list of four virtues, which are based on contemporary neuroscience and psychological research, as well as several world religions and Plato and Aquinas’ cardinal virtues—self-control, niceness (including empathy), intelligence, and positivity (Hughes 2015)—or on Persson and Savulescu’s prioritizing of altruism and justice, the meanings of these virtues are ambiguous and driven, in part, by power and context. Many marginalized people, for example, likely need a form of niceness that includes more self-preservation, self-interest, pride, and capacity for indignation, whereas many privileged people would benefit from a form of niceness that includes more humility, self-sacrifice, and altruism. It is unclear as to whether science could develop sufficiently to account for this contextual diversity. To demonstrate the problems and contextual characters of virtues, I will briefly consider these examples from an intersectional theological perspective: pride, empathy, and self-sacrifice.

Pride is typically considered a vice, but if one is lacking pride or self-love, pride can be a virtue (Trothen 2015, pp. 55–58). Theologically, pride often has been understood as the quintessential sin and is cited in most theological analyses of human enhancement technologies. After all, hubris can stand behind the inclination to strive to become more than human—god-like. But the sin of pride is much more common to the privileged than the marginalized. The more privileged tend to be in greater need of humility than the less privileged who tend to suffer more from a lack of pride, confidence, self-love, and development of their own power (Saiving 1960). While the creators of enhancement technologies are generally more privileged, and therefore likely more inclined to excessive pride, those affected by these technologies are much more diverse. It can be difficult to hear the voices of the marginalized, since they are usually less prideful and more reluctant to express their own interests. The enhancement of pride as a moral disposition, in people who lack pride and confidence, could help people to promote justice by resisting marginalization and disempowerment. However, the enhancement of pride in the more privileged and confident could increase insensitivity and decrease humility in those who need to be made more accountable to others, and more open to seeing flaws and their potential to harm.

Similarly, empathy and the inclination to self-sacrifice—which Persson and Savulescu identify as conjoint virtues that could and should be enhanced (Persson and Savulescu 2012; Persson and Savulescu 2015b, p. 349)—are affected by social location. Persson and Savulescu make a strong case for the enhancement of altruism, which they understand as involving empathy, and the “setting aside of our own interests for the sake of others” (Persson and Savulescu 2015b, p. 349). Privileged people tend to have less empathy than the marginalized (Kraus et al. 2011). Psychologist Dacher Kraus and his colleagues have shown that empathy is affected by social class (Kraus et al. 2011). Wealth seems to reduce empathy; power and privilege lessens concern for others. Perhaps, the less

aware we are of our true reliance on others, the less empathy we have (Kraus et al. 2011; Piff et al. 2012). On the other hand, less privileged people tend to have more empathy. For example, many elderly people may require less empathy enhancement and more assertiveness and confidence. Older adults can suffer from low self-esteem (Holstein et al. 2011) and be too ready to sacrifice their own needs, at least partially out of fear that they become a burden and are abandoned (Hardwig 2010).

The Christian tradition has too often perpetuated the message to accept undue self-sacrifice. Models of meek and mild Jesus turning the other cheek have been promoted at the expense of the Jesus who stood unflinchingly in solidarity with the oppressed, challenging the status quo and authority figures (Brown and Bohn 1989; Fortune 2005). While self-sacrifice for a greater good is very appropriate in some situations, people who endure abuse or exploitative conditions are usually not in need of more empathy and self-sacrifice. Rather, they are typically in need of enhanced assertiveness and more self-interest.<sup>1</sup>

These examples of vices and virtues—pride, empathy, and self-sacrifice—demonstrate the moral relevance of power and context to identifying and interpreting the virtues. Education regarding the moral relevance of context and power, and self-critical analysis are needed if we are to improve ourselves morally. At least for now, the development of appropriate virtues can best be addressed, not by moral bioenhancements, but by more and better educational strategies.

## 2. Dimensions of the Human Enhancement Debate

Human enhancement ethics can be broken down into three main, often overlapping, approaches. The first approach is, in my view, foundational to the other approaches, and centers on what it means to be human. From a theological perspective, the question is not whether or at what point we cease to be human due to enhancement technologies, but at what point do we cease to be creatures bearing the *imago dei*. This distinction has implications for ethical analyses that distinguish between therapy and enhancement, since this distinction depends on conceptions of “normal” ways of being human.

I suggest that the second approach to enhancement ethics which centers on choice, from a theological perspective, must be shaped by implications of the *imago dei*. This means that choice must be re-framed as extending beyond the individual, and the implications for other lives in addition to the self must be of central consideration. The third approach highlights distributive justice issues. Since social justice is germane to intersectional theory, justice concerns will be included in my examinations of the other approaches to the moral enhancement debate. I make the case that awareness and value for the interdependence of all life that comes with divine image-bearing, shifts the focus of the moral enhancement debate.

### 2.1. Being Human: Implications of the Imago Dei

What it means to be human, and to what degree we want to change what might be considered the defining markers of being human, are core questions in the human enhancement discussion. At what point, if any, do we recreate ourselves such that we are no longer “normal” humans or even human? From a theological perspective, the concern is not so much whether or not we remain human, but whether or not we cease to be creatures made in the image of God. An evolutionary understanding of the *imago dei* is based on the knowledge that humanity “is a relatively recent development within the 13.9 billion years of God’s naturally evolving cosmic creation” (Fisher 2015, p. 29). Since humans as a species were not in existence at the time of Earth’s creation, and since we still claim that humans are made in God’s image, it follows that being a divine image-bearer is not contingent on being human per se, but depends on acceptance of God’s grace to bear imperfectly an image of divine qualities.

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<sup>1</sup> Also, as other scholars have pointed out, empathy does not always lead to altruism (de Melo-Martin and Salles 2015, p. 226). And not all situations in which one may experience empathy warrant altruistic responses.



The *imago dei* doctrine has yielded a number of interpretations. Enlightenment approaches emphasize a Cartesian interpretation, seeing reason and rational thought as distinguishing and privileging humans in relation to other life. This reason-centered interpretation of what it means to be made in God's image is most congruent with the strain of transhumanist thinking that sees the brain and rational thought as fundamental to, and sometimes solely, representative of trans/human identity (Deane-Drummond and Scott 2006).

This emphasis on reason has been soundly critiqued for denying full personhood to the cognitively impaired, and to children.<sup>2</sup> As such, reason-centered interpretations of the *imago dei* fail to live up to Jesus' preferential option for the marginalized. Theologian John Swinton explores the meanings of memory and cognition as they relate to personhood in Christianity. He agrees that memory and rational thought are important to personhood, but enlarges our conception of memory beyond representational memory (e.g., cognitively recalled memories) to include "body memory" (Swinton 2014, pp. 166–67). In other words, we are more than rational cognition; we have intrinsic value. Memory and other forms of knowing are not confined to the brain and rational cognitive processes; other aspects of our embodied selves also remember and know. For example, people with moderate to severe dementia, who have lost most of or all of their short term, and much of their long-term memory, often remain responsive to rituals, such as saying the rosary and singing hymns. Our identities continue even when cognitive capacities are diminished. The concept of body memory challenges the sufficiency of an *imago dei* interpretation centered on reason and rational thought.

Another interpretation of the *imago dei* centers on self-determination (Migliore 2004, p. 141). This interpretation fits well with normative North American ideals of extreme independence and self-determination, but it emphasizes the individual at the expense of community, and the interrelationship of all life. It implicitly devalues dependence and interdependence as aspects of being creatures created in the image of God.

Alternative interpretations of the *imago dei* are relationally based (Migliore 2004, p. 141), emphasizing connection and interdependence as key to being made in the image of God. The divine commandments to love one another, oneself, and God, and to care for creation (Labrecque 2015), are integral to the biblical story. The nature of God as trinitarian reflects relationality; God, within Godself, is relational. If, from a Christian perspective, God is trinitarian and if all people are made in God's image (e.g., the Christian doctrine of the *imago dei*), then relationality and interdependence are aspects of God-intended human identity. Furthermore, within the Christian narrative, Jesus as a full incarnation of God, expressed God's preferential option for the poor; the most vulnerable and marginalized are to be given preference.

Relationship includes mutual dependence; God needs humans to participate in the divine work in the world, and humans need each other, God and creation (Long 1993). From this theological perspective, interdependency and the attendant vulnerability are virtues. Theologian Mary Potter Engel takes this privileging of relationship and interdependence a step further and defines sin as a "lack of consent to the dependence and fragility of our lives to our vulnerabilities" (Engle 1998, pp. 170–71). If vulnerability and interdependence are recognized as virtues (and, conversely, the denial of vulnerability and interdependence as sins), community and mutual relationships would be prioritized in the moral bioenhancement conversation. This starting point would shift the moral bioenhancement conversation to a focus on the enhancement of communities rather than individuals, and to the needs of the most vulnerable first. This shift may even open up different possibilities for enhancement vehicles.

For example, consider the proposal to use oxytocin to enhance empathy and altruistic behavior. If responsibility for the well-being of people beyond, and including self and kin is prioritized, spiritual enhancement may be a more effective and safer way to enhance morality than oxytocin.

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<sup>2</sup> Also, the assumption that only humans are created in God's image has also been debated vigorously (Moritz 2011; Deane-Drummond 2012).

Spirituality, as distinct from but possibly overlapping with religiosity, is associated with increased compassion and prosocial—including altruistic—behavior toward strangers (Saslow et al. 2013).<sup>3</sup> Oxytocin improves altruism, but only toward in-group members, not strangers. Spirituality can be enhanced via traditional methods such as spiritual practices and by psychedelics such as psilocybin, which research suggests is very promising for increasing openness, empathy, and altruistic behavior (Cole-Turner 2015; Tennison 2012).<sup>4</sup> If empathy, compassion, and altruism are critical to human morality, moral enhancement could possibly be achieved most successfully through spiritual practices and, potentially, psilocybin.

The enhancement of empathy, compassion, and altruism in the more privileged may help to generate a prioritization of resource sharing, and the creation of more strategies to empower and protect the marginalized. However, we do not yet have sufficient scientific evidence to support the use of medical technologies to enhance “moral” dispositions. Also, it is very unclear how we could sort out who needs these moral bioenhancements, and then convince these people to accept an intervention that may contravene their desires. (Now we are entering more into the issue of choice, which will be explored shortly.) Endeavors toward global social justice and the flourishing of all interdependent life will require not only moral bioenhancements (or even spiritual bioenhancements), but also education in various contextual studies including global dynamics, policy development, sociological analyses, economics, and political science. Additionally, self-reflexivity or “the process of reflecting on one’s own story from multiple diverging standpoints in ways that try to take into account one’s own experience of privilege and disadvantage within intersecting social systems like sexism, racism, heterosexism, and religious forms of oppression” (Doehring 2015, p. 191) is necessary to the enhancement of morality, if morality is understood to be linked with social justice.

Other approaches to enhancement ethics that center on being human, draw distinctions between therapeutic and enhancing interventions, with interventions that are clearly therapeutic being acceptable, while those that are clearly enhancing, being unacceptable. The dividing line between clearly therapeutic and clearly enhancing relies on the problematic concept of normal. The grey zone immediately surrounding “normal” is growing increasingly complex, with some ethicists seeing this unclear zone as including restorative therapies that bring recipients up to the standards of certain groups that exceed the average. For example, is 20/20 the accepted eyesight norm for everyone, or ought the norm be considered higher for major league baseball players, since average eyesight is sharper amongst pro-baseball players than the general population?

From a theological perspective, the question shifts and becomes: at what point do moral bioenhancement technologies cause us to cease being divine image-bearers? An intersectional and relational interpretation of the *imago dei* suggests that this dividing point comes when we cease to value the interdependence of life, and refuse our creaturely responsibilities to use our creative abilities (Hefner 1993) in order to enhance relationships and particularly the well-being of the marginalized.

Consider the example of an elderly person with dementia who exhibits violent behavior. Regarding moral bioenhancement, one approach would be to use pharmacological agents to minimize their impulsive aggression. This may or may not work for someone whose aggression is caused by dementia. The discussion may end there with a failure to flip around our thinking and reframe the issue as being about interdependence. Might it be more therapeutic to use a moral bioenhancement to induce greater empathy and compassion in clinical staff and managers of long-term care homes? How the standard for therapeutically normal levels of moral dispositions is determined will be affected by one’s ethical framework.

<sup>3</sup> Saslow et al, the investigators of these studies, define compassion as including empathy (e.g., the ability to step into another’s shoes) and the desire to help for the sake of helping without expecting other benefits.

<sup>4</sup> Michael N. Tennison has proposed that psilocybin would be appropriate as a moral bioenhancer, and Ron Cole-Turner has proposed that psilocybin would be appropriate as a spiritual enhancer (Cole-Turner 2015; Tennison 2012).

The question of whose virtues and values are promoted, is also of critical importance to approaches that hinge on assessments of what it means to be human. Context, power, and perspective will shape which moral dispositions are seen as most important for enhancement, and which behaviors are being sought as a result of enhancing these moral dispositions. These factors will also shape who is targeted to receive these enhancements.

From an intersectional theological perspective, limits are imposed by the interdependence and inherent value of all life, divine sovereignty, and the preferential option for the poor. The Christian belief that humans are created in God's image entails the understanding that the image of God is integral to identity, and confers unearned dignity on every person. The *imago dei* also confers the responsibility to create, as best we can, for the good of all life. The discernment of what is good involves spiritual practices, deference to God's wisdom through communal accountability, and the application of self-reflexivity and knowledge regarding diverse contexts and systemic power dynamics.

## 2.2. Choosing Morally

A second approach to enhancement ethics centers on choice, and more specifically the question of whether or not people ought to be free to choose enhancement technologies if they are judged medically safe.<sup>5</sup> Moral bioenhancements complicate choice. First, there is the question of who would choose moral bioenhancements, and whether these people would be likely to need these enhancements. Presumably if one lacks moral dispositions such as empathy and compassion, one may not feel motivated to acquire more of these moral dispositions, unless there is some other utility that fits with their interests. It is more likely that those who already have appreciable levels of empathy and compassion would be interested in increasing these moral dispositions. However, it is possible to become overly committed to the welfare of others to the neglect of one's own welfare. Second, are questions about the capacity to make authentic and free choices *after* one is morally bioenhanced. Will moral bioenhancements change us such that we are no longer able to make choices that are consistent with our identities? Will supposed "free choice" become a dated concept? Intersectional theological analyses of authenticity and choice shift this question by prioritizing community instead of the individual. I will first consider the issues regarding whether or not we should have the freedom to choose moral bioenhancements. In the subsequent section I will consider the concern about authentic choice post-moral-bioenhancement.

The desire to have "power over our fates" (Kurzweil 2005, p. 9) is fundamental to transhumanism and much of Western society. Self-governance is illusory if by self-governance we mean that individual choices affect only oneself, and that we never rely on anyone besides ourselves. For example, making breakfast may appear to be an independent task, informed only by free individual choice. But there are numerous people involved in getting that food to our kitchens, including farmers, those who transport the food to stores, and grocery stockers. Moreover, what we think of as appropriate breakfast food has been socially conditioned by many people and processes, including family, media, and government health policy makers. Our choices are not free if free means unfettered by contextual forces and unfettered by interdependence. What I choose has an impact on others, and others affect my options and choices. This interconnection needs to be considered in tandem with the choices we make, including choices regarding the design and use of moral bioenhancements.

As discussed earlier, technology is value-laden, as are other social processes that inform our choices. Self-reflexivity is important to autonomy, including choice, since this process helps us critically understand the layers of social forces that contribute to our formation and desires. Without a degree of critical understanding of the forces that shape us, many choices are driven by social norms and values

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<sup>5</sup> Ethicist Andy Miah is possibly the most well-known advocate of choice arguing that even professional athletes should be permitted to choose enhancement technologies for the purpose of improving athletic performance, so long as this use is overt and in continuity with their sense of authenticity.



without analysis of the desirability of these norms and values. Philosopher George J. Agich reframes the issue of choice in the context of what he calls actual autonomy: “the proper understanding of autonomy involves appreciating how individuals are interconnected and how persons develop in terms of historical and social circumstance” (Agich 2010, p. 608). There is a strong narrative dimension to autonomy and choice. Contextual factors including social privilege and barriers created by racism, ageism, sexism, classism, and numerous other systems of prejudice (Lebacqz 2012), impact our identities; we are connected to each other in both empowering and limiting ways.

An aversion to dependence in Western culture goes hand-in-hand with extreme individualism, and an illusion of self-governance that is independent of others (Holstein et al. 2011; Agich 2010, p. 605). These norms connect to the reduction of human worth to utility and efficiency; I am what I produce, and I am worth more if I produce things that are financially gainful. Theology promotes norms that are counter to these social norms, by affirming each person’s intrinsic worth and dignity (regardless of utility) (Swinton 2014; Ryan et al. 2005; Perkins et al. 2015), and claiming interdependence as a virtuous dimension of being human. The reversal sayings of Jesus (e.g., the last shall be first) challenge normative Western values, including the emphasis on independence and utility. And, theologically, community is necessary for virtue: “on one’s own, one cannot do the right things” (Swinton 2014, p. 164).

Should moral bioenhancement be a matter of individual choice? Persson and Savulescu, the best-known proponents of moral bioenhancements, argue that once these enhancements have been satisfactorily developed, individual choice should be overridden, and these enhancing agents should be given to all children much in the same way as we in the Western world have become mostly accustomed to childhood inoculations and fluoride in tap water. They argue that the risk of global harm or even destruction is very high, and justifies mandatory moral bioenhancement. Not only may catastrophic harm be obviated through the mandatory use of pharmaceutical moral bioenhancers, Persson and Savulescu argue, such mandatory usage would enhance and not limit individual autonomy. This is because a more altruistic and justice-centered world would increase individual moral agency and make us all freer (Persson and Savulescu 2008).

A relational theological approach to autonomy, however, would begin with and emphasize the implications of moral bioenhancement for all people, ecology and other creaturely life, and potentially the cosmos, rather than framing the issue in terms of individual choice. While individual well-being and desires would be factors in choosing moral bioenhancements, the ethics conversation about morality would extend far beyond individuals. The starting point is not be a utilitarian prioritization of the well-being of the greatest number of people. Rather, the starting point is the well-being of all life since, as creatures created in God’s image, we are interdependent. This starting point means primary attention must be given to the most marginalized, and entails careful scrutiny of the meanings of morality including the meanings of virtue and vice. It is possible that moral bioenhancement technologies could be developed that enhance virtues as understood from the diverse perspectives, and especially the less privileged, but we are a long way from that step.

If medically safe moral bioenhancements become available, the enhancement of virtues appropriate to the well-being of the marginalized—and therefore also to the well-being of all—could become very desirable, but only if these bioenhancements are combined with a contextual approach to morality, education about diverse contexts and people, self-reflexivity, and an appreciation of the interdependence of life. From an intersectional theological perspective, an individualistic notion of moral enhancement (centering on individual choice) is an oxymoron. If we begin with the premise that life is interdependent, the social implications of choice must be acknowledged. While the idea of making the more privileged among us more empathetic, altruistic, and justice oriented is attractive, an approach that centers on individual choice (either for or against), instead of a more in-depth exploration of what “we” mean by moral enhancement, is inadequate from an intersectional theological perspective. If the well-being of others and the planet are factored into decision-making processes, then the priority must be the most disadvantaged, and we must ask whether the pursuit of such enhancements is a just use of resources.

### 2.3. Choosing Authentically

The second concern regarding choice and moral bioenhancement is whether we would maintain the capacity to make choices authentic to ourselves post-bioenhancement. Will we be able to make choices that are consistent with who we are and want to be? Or will our very identities be altered in ways that prevent us from being true to our full range of being human? Proponents contend that moral bioenhancements have the potential to help us become more fully the people we wish to be (Douglas 2008; Jones 2013). Hughes sees moral bioenhancements as possibly addressing neurological limitations that stop us from realizing our moral aspirations, and perhaps our truer selves (Hughes 2017). In this way, moral bioenhancements may allow us to be more authentic to who we are, and better able to make choices congruent with who we are.

Others disagree, arguing that moral bioenhancements may well restrict our freedom to be who we are and who we want to be, including the capacity to choose to act in socially unacceptable ways. Harris and Hauskeller see the human freedom to, in Harris' words, "fall" or even to "choose to fall" as critical human capacities (Harris 2011, p. 103; Hauskeller 2016, p. 159). For Harris, moral choice and the "self-conscious examination" of choices are essential aspects of autonomy. As a result, he argues for the enhancement of moral reasoning abilities, and against the enhancement of moral dispositions.

If choice cannot be understood apart from relationships and life narratives, and if a capacity to choose is a desirable feature of being human, then questions regarding authenticity, and particularly authentic choice, are important to moral enhancement ethics. We need to ask to what extent do we choose "authentically"—apart from moral bioenhancements—given the power of social constructs and norms. Harris makes an important case regarding the freedom to make choices that are contrary to social norms, including the freedom to "fall", but our freedom to make choices is already somewhat curtailed, or at least strongly influenced, by social norms. However, the reality that freedom is limited by social factors does not justify the further limitation of that freedom through moral bioenhancements. It may be that science will eventually be able to give us more information about the effects of moral bioenhancements on selfhood. Such information may also affect our understanding of particular moral bioenhancements for particular people, as therapeutic or enhancing. If Hughes is correct in surmising that moral bioenhancements will allow some people to overcome life-inhibiting neurological limitations, then such interventions potentially would be therapeutic and desirable. However, how we decide, and who decides which physiological anomalies are limitations and which are fortunate happenstances, is unclear. Again, we have an unsurprising but problematic habit of conforming to current social norms and values.

The idea of changing people through moral bioenhancements may or may not be a significant departure from social attempts to influence people to develop what are widely considered to be good moral traits and behaviors. Change is a necessary part of being authentically human. There is no one steady state that defines each of our identities. We embrace educational strategies, for example, with the goal of changing and shaping us, including our moral selves. We are developing cutting-edge forms of moral bioenhancements, and we are also developing cutting-edge educational means of moral enhancement (Ançel 2006; Batt-Rawden et al. 2013; Kidd and Castano 2013). Both moral enhancement modes could potentially be used to help us to be who we want to be, and help improve the world. Most moral bioenhancements, as they are unfolding, would increase moral dispositions but would not prevent us from making moral mistakes and learning from these mistakes. An exception to this may be the electrical stimulation of the brain. There is some evidence to suggest that DBS, TMS, and tDCS may change our brains and thought patterns in unpredictable ways that impact identity (Cabrera et al. 2014), including the capacity to make choices that are in continuity with who we are and who we hope to become.

From an intersectional theological perspective, individual choices extend beyond the self. While, in order to safeguard individual choice and individual well-being, it is important that the use of moral bioenhancements preserve some continuity with one's personal narrative, and contribute to the person whom one desires to become, overall global well-being is, by extension, also important.

The question of authenticity must take into account the reality that each of us affects others; because of our interdependence, in some way, my authenticity or lack of authenticity is tied to your authenticity or lack of authenticity. Failure to recognize and appreciate the interdependence of life, reduces choice to individual interests alone, and reinforces unjust power distribution; in short, choice becomes immoral and inconsistent with a relational interpretation of what it means to be made in God's image. Assuming the value and interdependence of all life, and the prioritizing of the marginalized, individual choice must be reframed on the basis that my choices affect other lives, and this also affects me, and in the knowledge that social norms and values need to be approached contextually and critically.

### 3. Concluding Summary: Seeing Moral Bioenhancements from an Intersectional Theological Perspective

I began by considering what it means to make someone morally better. I identified some of the medical technologies that may have morally enhancing effects. The lack of consensus around what we need to target if we want to improve morality, is telling. Ought we to focus on improving the motivation to do moral good? Or should we enhance virtues? Or moral reasoning capacities? I favor the improvement of education and critical thinking regarding what a good or "right" thing to do might be in a given situation. I supported the claim that contextuality is critical to morality, through a brief intersectional theological exploration of pride, self-sacrifice, and empathy.

Next, I developed a central theological feature of Christianity—the *imago dei*—and began applying this, using an intersectional theological lens, to two common approaches to moral bioenhancement ethics. I suggested that a key question is: what does it mean to be creatures bearing the *imago dei*? Taking an intersectional perspective, I focused on relational interdependence as a core aspect of the meaning of being created in God's image. I proposed that changing the starting point from an individualistic focus to the *imago dei* and the interdependence of life, significantly influences the moral bioenhancement conversation. Interdependence refocuses the discussion on context, and especially systemic power imbalances and the marginalized.

Extreme individualism steers much of the moral bioenhancement discussion. What it means to be moral and virtuous takes on a distinctive shape when the conversation starts with an understanding of morality as contextual, and the theological claim that life is interdependent and has intrinsic value. Our North American normative valuing of extreme individualism is troubling, and mitigates against choices that are relationally based and intended for the betterment of all life, instead of only particular groups.

In an efficiency-oriented, quick-fix society, it is tempting to think that moral bioenhancements will be sufficient to improve ourselves morally. Traditional educational efforts may no longer be considered worthy of attention and resources. Current research into empirically supported strategies for teaching empathy, for example, might become less of a priority, or even abandoned (Ançel 2006; Batt-Rawden et al. 2013; Kidd and Castano 2013; Trothen 2016; Vanlaere et al. 2012). Moral bioenhancements may help motivate us to be more self-reflexive and altruistic. But there are too many questions regarding the science and the ethics of this topic. Not everyone would benefit from more empathy or compassion. Not everyone needs less pride. Not every virtue is a virtue for everyone.

The science is still in its early stages. I can imagine a persuasive argument for the use of medical technologies to enhance morality in people who show evidence of neurological barriers, as Hughes suggests. But even in these cases I am uneasy, since we tend to evaluate anomalies in accordance with current social norms.

For now, moral bioenhancements are unwarranted. More effective educational strategies, and possibly spiritual enhancement, can help us to enhance relationships and general moral well-being. This education must include diverse perspectives, including religious ones, if we are serious about moral enhancement.

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