Would We Even Know Moral Bioenhancement If We Saw It?

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Abstract: The term "moral bioenhancement" conceals a diverse plurality encompassing much potential, some elements of which are desirable, some of which are disturbing, and some of which are simply bland. This article invites readers to take a better differentiated approach to discriminating between elements of the debate rather than talking of moral bioenhancement "per se," or coming to any global value judgments about the idea as an abstract whole (no such whole exists). Readers are then invited to consider the benefits and distortions that come from the usual dichotomies framing the various debates, concluding with an additional distinction for further clarifying this discourse qua explicit/implicit moral bioenhancement.

Keywords: moral enhancement; reductionism; medical ethics; mental health; paternalism; addiction

Moral Bioenhancement, and the Tremendous Plurality the Term Conceals

Moral bioenhancement has become all things to all people: it spans concerns that are cognitive, emotional, behavioral, genetic, neurochemical, technological, and pharmacological. Many issues, from freedom, political and moral, judicial and punitive, from institutions of mental health and medical practice, to democracy and citizenry, to state-driven incentives and compulsory state-enforced programs, have come before its gaze. Aspiring toward real-world application, commentators are concerned with heightening moral powers, restoring lost moral capabilities, and "curing" various "moral sicknesses." Nuanced discussion ensues regarding moral bioenhancement's relationship to issues of individual moral identity, moral action, ethics, and meta-ethics, forcing philosophers and scientists alike to confront their understandings of the many concepts of morality, moral formation, moral education, and the various subtending processes involved. The scope of moral bioenhancement is great: presented by some in terms of pure fantasy, by others as hard-hitting real future prospects and as offering remedies for every last moral concern from all our petty and mostly harmless vices and to various addictions and all sorts of "undesirable behaviors" up to the ultimate fate of humanity and moral bioenhancement's apparently salvatory promise for humanity against its own inner biological evils. Endless potential seemingly abounds. Lovingly stoked, the embers of the late Enlightenment project of beneficence and the perfection of humanity by means of science and reason smolder contentedly beneath these very recent present expressions of this classic and archetypal moral formative imperative: "humanity must be saved from itself!"

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It should come as no surprise, given all this diversity, which is but a partial catalog, to discover that moral bioenhancement discourse is somewhat of a mess. Therefore, what needs to be understood, first and foremost, because of all this immense plurality of concerns and concepts, means, and ways of articulating moral bioenhancement, its roles and place in the world, present and future, is that *there is no one such thing that goes by the name "moral bioenhancement."* Mention of such bioenhancement "per se," or "in the abstract," or any sense at all that moral bioenhancement can be thought of as a singular project, or a singular term, must be rejected. Yielding to the temptation to make overall valuations that "moral bioenhancement is bad!" or the contrary, that "moral enhancement is our only salvation!" must be avoided. Such propositions are without sense because there is going to be no meaningful way of encapsulating this very simple-sounding term: "moral bioenhancement." How to disentangle the prospects—some of which are exciting and desirable, some of which are despicable, some of which are perfectly recognizable in terms of present reality, some of which are absurdly fantastical, and some of which are just so bland that it is hard to take too much issue with them—is the question that confronts us.

Ubiquitous dichotomies pervade the discourse. Exploring these dichotomies is illuminating, and I will concern myself here with three: "cognitive versus emotional," "voluntary versus compulsory," and "positive versus remedial" moral bioenhancement. Even though such discriminations are necessary, and (most of them) are useful in their own way, they also introduce a number of distortions into the way one thinks about the domain. Not respecting moral bioenhancement's diversity too often results in such dichotomies being drawn out as if they are the whole of the discourse. A brief deconstruction of these dichotomies will help clarify their utility for the domain, and will help articulate many of the various points I want to make about how the multiplicitous nature of the discourse is more appropriately analyzed through numerous lenses, and whose dichotomies only make real sense when spoken of in relation to each other, and in relation to a given set of contexts.

Cognitive versus Emotional Moral Bioenhancement

Some of these dichotomies are more distorting than others. One particularly vexing split is that between cognitive and emotional (or affective) moral bioenhancement,[1] in which the word "cognitive" refers to powers of moral reasoning and reasoning generally, and the word "emotional" stands as a euphemism for everything else about the human person. It is important and useful to discriminate between moral processes that rely heavily and predominantly on reflection and reasoning, on the one hand, and those that refer to, for example, emotionally explosive sorts of behavior, but it is also distorting on two very important counts. First of all, it is only at its most extreme that cognition and emotion can be separated (and even that is debatable[2]); second, much refined moral functioning relies on a harmony between emotion and reasoning, as opposed to a "cognition *versus* affect" competitive split, even insofar as they can be split; and, third, these two factors are spoken of as if all human moral functioning can be reduced to nothing more than these two apparently atomic elements.

Talking about "cognition versus emotion" obfuscates the profoundly embodied quality of moral functioning, elements of practical reasoning that require

understanding the human person not as an "emotion + reason" composite, but as an extraordinarily complex and integrated agent embedded in social and relational contexts: an agent that has a whole range of bodily and mental powers that integrate in mercurial ways across the various processes, forms, and contexts involved in moral activity. As such, although the cognitive/emotion dichotomy does have limited use in describing extreme cases, on the whole it is a particularly distorting split that, in my estimation, should be strongly de-emphasized in the discourse, if not altogether removed. A conceptual structure that does more justice to the embodied and embedded nature of the real human person as he or that person carries out moral action, or moral development, would be more germane. After all, enhancement depends on having more than a cartoon character understanding of what it is being enhanced.

Voluntary versus Compulsory Moral Bioenhancement

Likewise, the voluntary versus compulsory dichotomy has its uses in straightforward and clear-cut cases, for example, in distinguishing between that which might be bought from a pharmacy versus that which might be compelled by some authoritarian state, but there are also problems with this distinction. There are, after all, numerous ways in which what is presented as voluntary can be coerced, and, conversely, because no technology in the foreseeable future can turn persons into "moral robots," an element of agency, and potential disobedience, will always remain.[3] Although nothing is truly voluntary, nor truly compulsory, the distinction is still a germane one, particularly with respect to concrete, practical concerns, such as managing pathologically aggressive persons, sadistic child molesters, or various classes of substance users. The difference in moral permissibility between interventions that are voluntary and those that are compulsory in particular cases, is something that needs to be argued about (see Wiseman 2015 for a further elaboration of these points.[4])

Positive versus Remedial Moral Bioenhancement

The next dichotomy is that between "positive versus remedial" forms of moral bioenhancement,[5] by which I mean enhancements designed with the aim of either boosting existing moral powers (e.g., making oneself more generous, or more compassionate, imagining that such an intervention could be made to exist, although we are presently lacking any such tincture); or, taking those with moral weaknesses, whatever one takes that to mean, and restoring or improving their moral potential. Examples of the latter that have been suggested might be restoring the affective powers of psychopaths,[6] or the "inoculation" of substance abusers against their various drugs of choice.[7] Some despise the treatment/enhancement distinction wherever they find it.[8] It certainly has its problems; however, the problem with this distinction is mostly to do with its (lack of) power as a morally significant boundary.

Although the distinction is certainly very muddy, it can be used to clarify elements of the debate. Everything depends on the context one is talking about, and not every treatment would be used as enhancement even if it could be. For example, in treating addiction, no one would take an opioid inhibitor for any other reason than for treating and overcoming an addiction to alcohol, morphine, and so

on because the side effects are so unpleasant, and the positive effects have no value in enhancing the daily condition of the average person. There is simply no positive enhancement value; therefore, the treatment/enhancement distinction holds. This will also be the case in many instances of mental illnesses that transcend the "mad/bad" boundary (and are, therefore, arguably, apt foci for moral bioenhancement). Unpleasant treatments whose only function serves to remove positive symptoms of a profound malady are unlikely to be seized upon as enhancement, and will only be used as treatments.[9] As such, distinguishing between treatment and enhancement still retains an important descriptive power in certain cases, particularly with respect to moral bioenhancement, which seems to take the blurriness of "mad" and "bad" as one of its core sources of opportunity.

Moral Bioenhancement, and Moral Permissibility

Moral bioenhancement discourse is bioethical in nature. This is a very important point. Raising such dichotomies is not just for describing moral bioenhancement, but also about making discriminating moral judgments regarding the permissibility of certain visions of moral bioenhancement. But when interrogated thoroughly, one must notice that none of these dichotomies are particularly helpful, *in and of themselves*, in meting out discriminating moral judgments. All too often these dichotomies are used in conversation as if they have some magical power, as purely abstract distinctions, to determine moral judgments in themselves.

The treatment/enhancement distinction is the classic case in point of a distinction that is used, in other enhancement spheres at least, to defend a boundary of moral permissibility, but whose tremendous muddiness thwarts most attempts to draw abstract, morally significant lines with it.[10] Appealing to specific contextual features is the only way to give the treatment/enhancement distinction any morally significant power, and this is the case also with the voluntary/compulsory distinction; it is ambiguous in itself, and questions of permissibility always rely on looking at concrete factors. It may be that some interventions are better off actioned as compulsory, and there might be some interventions better off left as voluntary. Lastly, the cognitive/emotional dichotomy has precious little power as a morally significant boundary because not only does it represent a woefully crude and unrepresentative image of how moral functioning actually occurs, but even where cognitive enhancement can be talked about separately from "emotional" powers, it barely needs stating that cognitive enhancement is an absolutely ambiguous matter that can be used for evil as much as for good, as much as for anything else. Therefore, in the abstract, none of these distinctions are helpful for establishing morally significant boundaries in and of themselves.

Compounding the Plurality of Terms

Their descriptive value aside, any normative power that such dichotomies are endowed with must constantly appeal to factors on the ground, and, moreover, *must appeal to each other*. The dichotomies should not be taken in isolation from each other but should be understood as mutually interfolding. In other words, the power of these distinctions to mete out normative lines of permissibility is further destabilized by the fact that they need to be compounded within one another.

Is a "remedial," "cognitive," "voluntary" enhancement more or less permissible than an "affective," "restorative," "compulsory" one? These dichotomies can be unhelpful when taken as abstractions, but when given some contextual meaning, finer discriminations can be made in light of the interplay between such dichotomies.

Although it is certainly much more satisfying to separate out the entire domain into a neat dichotomy and say: "this side is permissible, but that side is not," none of these approaches will do. The balance, then, is a difficult one, because one needs to find the appropriate focal length for investigating the particular matter at hand: one that is general enough to avoid falling into the total atomization of a purely case-by-case study for every context imaginable (which is simply too laborious to be realistic), but that also has acuity enough to be able to facilitate some sound judgments about moral permissibility. Moreover, because the potential number of permutations for combining the poles of the various potential dichotomies is vast, one needs to be able to discern and make a case for why one has chosen any given ways of cutting up the discourse, which elements to combine, and which are to be ignored. No such tool is comprehensive, and any given dichotomy is only a partial and pragmatically useful temporary lens.

This is why one needs to take very seriously the need for sharp differentiation when engaging in moral bioenhancement debate, because without clarifying all of these distinctions, and their strengths and weaknesses, without knowing what they can and cannot do, and without attempting to multiply the range of discriminating tools that one has to hand, the domain is neither as deep, nor as sharp, as it needs to be, given the various great expectations that have been laid upon it as a practical real-world force for effecting various kinds of change. It may be that some elements of moral bioenhancement stand up to expectations, and some do not, but without a multitude of sharp analytic tools that can be used with discernment and in concert, we shall never be able to disentangle which prospects are worth considering, and in which particular contexts, within which moral constraints, to encourage or condemn any given potential use. Talking of the domain as a singular matter, or something to be broken down into one neat dichotomy, is obvious unacceptable.

Moral Bioenhancement, Hard and Soft

With these concerns in mind, and the need for more tools of discrimination that can be applied alongside the others thus far considered, I will proffer an alternative distinction that I have yet to see discussed in the various literatures. With all the provisos mentioned previously (that there is not always a very clear line between the poles, and that such dichotomies are distorting if taken in isolation), I suggest that it can be helpful to distinguish between forms of moral bioenhancement that might be described as alternately "hard" and "soft" in nature. This distinction aims to represent the *explicitness of the intention* of the user (or compeller) of any given related intervention. A "hard" moral bioenhancement would be something taken or given with the purpose of explicitly and intentionally affecting moral processes, to improve, restore, or replace (an example would be someone taking a specific pharmaceutical agent under the impression that it would make that person more charitable, or more compassionate); "soft" moral bioenhancement, in contrast, is a much more diffuse category of intervention designed

to alter behavior, thought, affect, or anything at all that overlaps in some significant way with a person or group's moral processes. An example might be the refusal of national health services to perform nonemergency surgery on substance addicts, tobacco users, and the obese, which would not be a decision made on moral grounds, but more likely on financial grounds, nor would it even be aimed at improving moral functioning explicitly, but that rather might have knock on effects on morally significant capacities, such as autonomy, of people compelled to change their behavior because of the intervention.[11]

This is an important distinction. One of the big bones of contention in moral bioenhancement discourse is what precisely qualifies as moral enhancement. Some define the concept so broadly that anything counts, and some define the concept so narrowly that nothing at all can count. However, both approaches seem to capture important aspects of moral activity and its formation and actualization. I do not believe that a middle way between strict and broad definitions of moral bioenhancement is always best, and it is extremely helpful to have both a very wide and a very narrow way of looking at things.[12]

One problem with using too strict a definition of moral bioenhancement (for example, that only character development can be used to measure moral bioenhancement) is that there are real and pressing concerns for indirect, soft moral bioenhancement that overlap with many contemporary concerns in mental health and medical practice, overlapping also with current state policies to do with behavioral control and paternalism. These broader, but very important, concerns are excluded when one takes too narrow a vision. The utility of this "hard/soft" distinction is derived, then, from the value of keeping separate (1) strict definitions of moral bioenhancement that, rightly, understand moral functioning and development as a long-term, complex, multidimensional process that occurs over the lifetime (with such a strict definition, very little counts as having genuine moral bioenhancement potential), from (2) interventions that impact on morally significant powers and activities, albeit indirectly, or incidentally, but that nonetheless represent morally significant activities (e.g., state intervention). Neither of these two perspectives should be excluded from debate, and conversation is usefully split accordingly for those who are interested in the explicit improvement of moral powers precisely as moral powers, from more cloaked and potentially insidious forms of moral enhancement that might sneak themselves (and in fact are already sneaking) into contemporary public policy, often invisibly, and in various different forms.

Beginning with hard moral bioenhancement, I could start by noting that overt, authoritarian state dictates regarding any supposed obligation to morally enhance need not concern the reader too much here. It is accepted that, in the West at least, we are living in a democratic condition, and that no politicians in their right mind would attempt to run on a campaign slogan: "*compulsory moral bioenhancement for all!*" because calling for explicit population-wide, technological/pharmacological moral bioenhancement would be political suicide.[13] Instead, for hard moral enhancement we need to think more about localized attempts of individual persons enhancing themselves as part of a general project of moral self-development (i.e., the voluntary, remedial, and enhancement elements of the dichotomies are relevant here).

With hard moral enhancement, *intention is everything*, because a person must have purposively and explicitly decided to attempt to enhance some moral power

or other. For an intervention or group of interventions to be considered moral bioenhancement in the hard sense requires that the persons involved have some sense they are purposively and explicitly enhancing parts of their moral being, or performance, and that this is the primary reason (primary, that is, among any other potential reasons for action they might have), that they are so enhancing. Hard moral bioenhancement would then be part of a self-willed project, one already underway, and likely being carried out in combination with various "traditional" means, into which a biological agent or technology would then be introduced as an auxiliary to the overall project. In this narrow sense, then, I am making reference to something that might fit even within the most stringent criteria for moral bioenhancement set forward by writers such as Jotterand and Kabasenche,[14] that moral bioenhancement, at its strongest, needs to be understood as being related to some sort of practical wisdom, or virtue; a habitual construction of something such as "character" or "moral identity."

An *ongoing* predisposition of will would be absolutely requisite here, because, just as a steroid cannot lift weights for a person, but requires that person to go to the gymnasium to enjoy the benefits of the enhancement, so, too, any person engaging in a project of explicit, hard moral bioenhancement will likewise be compelled to work with any given bioenhancement element if it is to be successful. No moral enhancement imaginable can simply work like a magic wand and make persons more moral, because discernment is requisite in virtually all moral functioning, and because all moral goods are more or less contextually ambiguous. Ongoing practice would then be a necessary element of hard moral enhancement if it is to be anything other than a superficial and likely moribund attempt at moral self-improvement. Once more, there is fortunately no contraption or combination of contraptions in any plausible, foreseeable future, that can transform a man or woman into a moral robot.

However, both the strength and the problem with the harder "moral identity" approach, if intention and explicitness are necessary for moral bioenhancement, is its strictness. Most moral activity is conducted aside from explicit projects to "become a better person." Significant quantities of moral activity are innocuous, banal even, and happen without much notice, intention, reflection, or comment. If the hard definition, the strict version of moral enhancement, is all one has to hand, then swathes of the discourse are immediately thrown out. The overwhelming majority of a discourse that has very important and pressing present relevance to the actions of mental health and medical bodies, the judiciary, and many various actions of the state whose activities are often invisibly tied up with moral judgments and altering behavior and thought, although without ever thinking of it as some explicit "moral intervention," would be discarded as senseless. Some means of approaching moral enhancement that can do justice to the way in which it overlaps implicitly with so many elements of our lives, therefore, is needed. For this, soft moral bioenhancement serves as a useful conceptual category.

Issues with Soft Moral Bioenhancement: Paternalism, Social Control, and "Undesirable Behavior"

The use of power by the state and various institutions to influence and coerce behavior is sometimes done well, and sometimes done poorly. State interventions to encourage people to stop smoking are an overwhelmingly good thing.

Likewise, interventions to prevent persons from using mobile phones while driving are also an unambiguously good legislative measure. Paternalism, like enhancement, is not something one can pronounce overall moral judgments upon. The harms to self and others generated by many activities are such that the state does well to intervene to prevent, to punish, or at least to place limits on the expression of some activities.

The question comes with the overlap of values, and in particular moral values, with such activities. Is smoking an immoral act? There is no clear answer because it has elements involving autonomy, will, and self-control, and it is directly or indirectly harmful to others and self, yet without itself being an explicitly immoral action. One might make the same claim about alcohol consumption. With the exception of some religious groups, imbibing alcohol is rarely considered a distinctly immoral act in and of itself. However, it clearly has a range of impacts that directly or indirectly relate to moral discourse, and creates harms that directly or indirectly count as morally significant.

It is here that the hard moral bioenhancement category fails in its capacity to grip the full range of the debate, and a wider net is required. Soft moral enhancement is required as a category so that one can capture these morally diffuse cases that are not directly or explicitly moral issues, but that overlap with distinctly moral concerns. Social control, paternalism, law-making, medicine, and mental health, all of whose institutions involve intervening in behavior, to constrain freedom, to prevent and punish activities that are not explicitly immoral, but that have morally related dimensions, are all best considered under this category of soft moral enhancement.

It is important to notice (and this is the key element here), that *the word "morality" is never used*. Such interventions are created for "public health" reasons, or "for the environment". Soft moral enhancement is such a significant subject because society is getting an indirect moral enhancement without even knowing it, without the word "morality" being mentioned at all. Again, paternalist intervention is morally ambiguous in itself, and one must be an extremely radical person to think the state has absolutely no right to intervene in any person's action ever. Although the rest of this section will be concerned with the darker forces involved in soft moral enhancement, it is important to keep in mind that there are often good interventions made, and that these concerns over soft moral enhancement represent localized worries rather than necessarily indicting the idea of paternalism, or even soft moral enhancement, as a whole.

The medical and mental health domains are particularly prone to this temptation to meld moral judgment with interventions directed toward various concepts of health and normalcy. There is a sense in which some medical treatments are, and will necessarily continue to be, covert forms of moral enhancement. There is nothing conspiratorial about this. Basic to medical ethics is the idea that concepts of "health" and "normalcy" are incredibly difficult to get a handle on. There are at least three distinct ways that these concepts are used in actual practice, which are value laden to differing degrees, from a functional definition (an organ is unhealthy if it does not function as it should), to a statistical definition (an organ is unhealthy if its function sits outside the appropriate population bell curve), to a social definition (an organ is unhealthy if it is a social convention to treat such a condition as unhealthy). It should be clear that the last two of these three definitions invite value-laden judgments, and when those values involve clear moral values, what

exists, in effect, is medical treatment acting as an arm of moral control. Not all values are relevant to soft moral bioenhancement. If someone is treated as ill because that person is unusually short of stature, one is not referencing *moral* improvement for advising treatment based on statistical norms, but when a person is treated as medically ill simply for engaging in activities deemed immoral or "undesirable" by the given social milieu in which the medical diagnosis is embedded, then there is no doubt that a form of, often coercive, covert moral enhancement is in effect.

Here is an example. We are well used to referring to a serial killer, or a child molester, as "sick." But do we mean *literally* sick, or is this term just a rhetorical shorthand for, and expression of, our outrage and disgust? And when child molesters are treated by medical practitioners, in cases of mandatory castration (as is practiced in Poland[15]), we have a very obvious case of this blurring of so-called "moral illness" as a rhetorical expression of disgust, with the literal medicalization of profoundly unacceptable behaviors. Another example is as follows. Lobotomization of uncontrollably aggressive persons was performed in the West in the 1970s, under psychiatric care, and because the operation point was the brain, lobotomization is generally taken as clear case of the biologization of "undesirable" behavior. One does not attempt to treat bad behavior by cutting into and fusing parts of the physical brain unless one thinks that such bad behavior is part of a literal medical illness.

Where then is the line between moral enhancement and medical treatment when the one thing is diffused indistinguishably into the other, and without the word "morality" being mentioned? *Insofar as any given medical and mental health uses technological and/or pharmaceutical approaches to treat socially defined diseases based on moral value judgments, a covert and de facto moral bioenhancement is taking place*.

Medicine inevitably involves values; however, it is important to question exactly what values lie concealed within the practice of medicine, whether those values are distinctly moral values, and whether the related practices are justifiable when they come to manifest, by design or not, as they in fact do, as covert moral remedies.

Although, fortunately, our society has (mostly) moved away from the sort of "punitive psychiatry" that was rampant worldwide in the disturbingly proximate past, wherein politically inconvenient persons would be labeled as schizophrenic and institutionalized for as long as was expedient, we have nonetheless moved on to more subtle forms of social and behavioral control by means of that ever-narrowing and ever more elusive ideal slice of behavior that might be called "normalcy" generated by mental health diagnostic manuals, most notably the *Diagnostic and Statistical Manual of Mental Disorders,* 5th edition (DSM-5), which was written in direct consultation with a heavily deregulated United States pharmaceutical industry (an industry that is allowed to market its products "off-label," that is, for any condition, real, imagined, or invented, that might be constructed in order to increase diagnoses and sell products[16]). Value-laden labels and constructs permeate the DSM-5, which has been thoroughly excoriated by the British Psychological Society, which roundly condemned the DSM-5 for inventing diagnoses for predominantly "social reasons," its blatant construction of anything in the least bit "non-ideal" as a "personality disorder" requiring diagnosis and treatment.[17]

It is very hard to move away from the fact that too many mental health disorders and diagnoses have been literally invented in the DSM-5 which takes à la mode socially undesirable behaviors, such as smoking and gambling for example, and then simply adds the word "disorder" to them (we genuinely have "tobacco use disorder," and "gambling disorder"), and then inserts them into the manual used by virtually all mental health practitioners in the United States and beyond. Of course we must remark with some dark amusement the irony that this extreme narrowing of the concept of "normalcy" to a ridiculously idealized condition now excludes virtually everyone (i.e., the concept of "normal" is inhabited by no one), and note that this is a present social reality into which moral enhancement, in whatever form it takes, will be made manifest.

Insofar as the behaviors intervened upon here involve moral valuations about our behavior and social norms, a spandrel has been created by all these institutional and commercial forces in the form of a pervasive covert moral bioenhancement by proxy. Insomuch as these "disorders," this "undesirable behavior" is treated by pharmacological or technological means, what occurs is nothing other than soft moral bioenhancement, plain and simple, and it is one whose scope is increasing constantly.

All this being so, as suggested above, we are dealing with matters that are thoroughly ambiguous, and in all cases must refer to concrete factors in real life if we are to make sound and discerning moral judgments about any given moral enhancement intervention potential. Some interventions might be good, some not so. In all cases, one absolutely does need to keep an eye on the current trends of the expansion of state and institutional intervention into matters involving moral values, and one needs to be constantly penetrating through this soft, implicit moral enhancement in order to grasp the moral values at stake, to bring them to light, and to question them, and the means used to so "nudge" persons in "desirable" behavioral directions.

Issues with Hard Moral Bioenhancement: Augmenting Moral Projects for Distinctly Moral Reasons

Credible ways of going about *explicitly* improving moral functioning in some clear, measurable way are far from being abundant. However, it is possible to give at least one clear and relatively uncontroversial example of a desirable (or at least, less problematic) form of hard moral bioenhancement in order to underline some of the many factors that are necessary in presenting some worthwhile instance of moral bioenhancement. Inoculants for various addictive and illicit substances would be a clear case in point. There are many narcotic substances, illegal or prescribed, which can have a devastating effect on the life of the user. Many forms of illegal amphetamines, like many forms of prescribed opiates, are extraordinarily destructive to the people and their relationships, and have profound psychological and physiological effects that result in a frightening dehumanization of the addict involved. Long-term addicts are, in some cases, perfectly well aware that their lives are being constantly degraded, that they perform despicable activities daily in order to obtain their drug of choice; however, as is true of all addicts, feel utterly unable to stop. Opioid inhibitors already exist, and numerous other "vaccinations" are being developed to combat the effects of such narcotic use.

Imagine the following scenario. Long-term addicts, having seen the effects that the substance had on their lives, seeing the terrible things that they have done to their loved ones, then make a clear and distinct decision one day to get clean. In this instance the decision is explicitly morally motivated. This is not just an issue of health; primarily, the decision to give up abusing this substance is made as a moral decision, to help these people to stop doing the terrible things they do, and in order to be better people. This is not a particularly exotic scenario; it happens every day. If a vaccination exists to neutralize the effects of such a substance, for hours, days, or weeks, and such persons avail themselves of such a substance, with a credible intent to change over the long term, and take the intervention as part of a number of other strategies for overcoming their addiction (for example, group therapy) what is this but a very clear, uncontroversial, and unproblematic case of moral bioenhancement in the hardest and strictest possible sense?

Those who think that moral enhancement is just some fantastical, futuristic nonsense, or some outright evil, need to pay heed at this point. Here we have a case of people, in a bad way, making a clear and distinct decision to overcome a problem, on distinct and explicit moral grounds, and using a pharmacological intervention to enhance their capacities to carry out this moral intention to become "better people." This would be hard moral bioenhancement, plain and simple.

There are some provisos. For example, it would be better if the people in question took the pharmacological aid as part of a larger bundle of biopsychosocial treatments, engaging in support groups, attending therapy, even developing their spirituality, if that is a potentially meaningful dimension of their existence. In this way addiction is not reduced to a merely physiological illness—to "addictive genes" or "a malfunctioning brain and dopamine system"—but rather, the fact that the problem has social, psychological, and potentially spiritually significant dimensions as well is recognized. According to present medical treatment, one would never be prescribed an opioid inhibitor in isolation anyhow. Medical practice, particularly in the United Kingdom and the United States, is rather insistent that such medications be utilized as part of a larger group-therapeutic project. This suggests that, in the treatment of addictions, medical practice is already wise with respect to refusing to resort to purely physiologically reductive remedies.

This notion that the treatment of complex medical issues needs a broader multilevel approach is a more general truth. In cases of pathological aggression, and also in cases of chemical castration, the use of pharmacological agents in controlling such behaviors is never purely bioreduced. Pharmacological controls may very well be useful, but they are never used in isolation; rather, they are always dispensed as part of larger person-centered therapeutic packages and monitoring. Again, state practice is wise here in treating such problems integrally rather than imagining, as some of our enhancement philosophers do, that moral enhancement will be a matter of simply taking a pill, or using some technology, and all one's moral problems will be cured, as if with a magic wand. The bioreduction of morality is just too simplistic to work.

Although I myself am, without question, a critic of most moral bioenhancement discourse—precisely because of the dangerous and dehumanizing simplifications involved in such bioreductive agendas—it is important to recognize, and emphasize, that the domain does not represent an absolute evil. It is not purely fantastical, futuristic, unworkable nonsense. It has prospects that are very mundane, and for that reason, they are immediately relevant and very hard to take too

much issue with, just so long as they are scaffolded appropriately, and manifest in a non-dehumanizing fashion, which treats each person as an agent making a moral decision, embodied in a world of other people, rather than as a machine with some manner of faulty connection needing to be "fixed" in the way that one services a car, lorry, or truck.

Conclusion: Recognizing Moral Bioenhancement When We See It

Hard moral bioenhancement is clear and easy to see. To the question, then, of whether we would recognize such enhancement if we saw it, the answer has to be, by definition, "yes." Hard moral bioenhancement is something done for distinctly and explicitly moral reasons. It is true that persons do things for all sorts of reasons, and rarely just for one, but as long as the primary motive is one of finding the means to engage in an explicitly moral project, this is clear enhancement in the hardest and most stringent possible sense. To repeat, the explicitness of such a project does not guarantee that a given intervention is morally permissible; there might be other extraneous factors that problematize a given intervention relating to safety or efficacy. The distinction is merely helpful in bringing certain important aspects of the discussion to light. The problem is that means and opportunities for such hard bioenhancement are exceptionally meager, both in number and in efficacy. If moral enhancement is considered only in terms of these hard cases, then there will be a very short conversation. However, as has been discussed, morally relevant interventions exist on numerous levels, which very rarely mention "morality" at all, let alone as a justification for state intervention.

Vojin Rakić's design on moral bioenhancement, one that attempted to negotiate between the outright rejection of the prospect, on the one hand, and a mad vision of statewide compulsory enhancement, on the other, was to suggest that the state utilize a series of "incentives" to encourage the populace to take on moral bioenhancement for themselves.[18] However, this need not be presented in the future tense, because it already exists. And this is one reason why the hard/soft distinction is so important. A hard, explicit statewide attempt at "moral enhancement for all" is an unthinkable prospect in any society like our own. But when considered from a soft angle, such enhancement is not only possible, *it is already in full swing*. And aside from the medical and mental health elements mentioned, the continuing investment in projects such as the BRAIN Initiative, neuroeconomics, the Behavioral Insights Team (the "nudge" unit), to name a few, which are already receiving staggering amounts of funding for, among other things, developing better means for manipulating persons into performing more "desirable" behaviors en masse, it becomes obvious that soft moral enhancement is absolutely real, already pervasive, and expanding in scope daily, and, to the extent that it is largely covert, highly manipulative, and value laden from the bottom to the top, whatever the nature of the intentions of the various participating bodies (most likely beneficence), the moral values that make up the core of the interventions need to be brought out into the light of day, and vigorously scrutinized, so that the public can come to understand the specifics of the values that are being foisted upon them in the name of medicine, mental health, public health intervention, or "preventing undesirable behavior." Once again, certain interventions of this sort are necessary and tremendously valuable, but above all one must be able to appreciate the nature of these interventions, and isolate and question the moral values that are

being presented in the guise of other interventions, that manifest without using the word "morality" once. Therefore, with respect to this *soft* sense of the term, the answer to the question "would we recognize moral bioenhancement even if we saw it?" must assuredly be: "*no, but I very much hope that we learn how to.*"

Notes

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4. See note 3, Wiseman 2015.
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6. Jotterand F. Questioning the moral enhancement project. *American Journal of Bioethics* 2014; 14(4):1–3
7. See note 3, Wiseman 2015.
8. Harris J, On our obligation to enhance. In: Sargent E, ed. *Superhuman: Exploring Human Enhancement from 600 BCE to 2050*. London: Wellcome Trust; 2012, at 38–9.
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11. Note how the previous paragraph makes use the relevant dichotomies within itself. This hard/soft distinction, explicit attempts to enhance moral functioning, or interventions that, although done for other reasons, have knock on effects of morally significant powers, must also be understood with respect to whether the intervention is being applied coercively, or as a voluntarily self-chosen project (insofar as it is possible to disentangle the two), and likewise, whether it is being used in a therapeutic context, or as part of a project of self-improving an already existing power. The ways that the various distinctions interact and modulate the significance of each other is a very complex business about which a book could be written, but for now I would ask readers to imagine for themselves how the permutations might modulate the various reflections presented here.
12. See note 10, Wiseman 2016.
13. See note 10, Wiseman 2016.
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