The Sins of Moral Enhancement Discourse

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Abstract

The chapter will argue that the way current enthusiasm for moral enhancement is articulated in the extant literature is itself morally problematic. The moral evaluation (and ultimately disapproval) of the discourse will proceed through three stages. First, we shall look at the chequered history of various societies' attempts to cast evil, character, and generally undesirable behaviour, as biological problems. As will be argued, this is the larger context in which moral enhancement discourse should be understood, and abuses in the recent past and present should therefore be highlighted. Second, it will be argued that, given moral functioning's profoundly contextual and responsive qualities, any notion of a fine-grained, powerfully efficacious moral enhancement is both unrealistic and, actually, incoherent. Since enthusiasts' hopes are unrealistic and incoherent, such enhancement would not even be capable of providing the transformative ends that supposedly justify the sometimes extreme prescriptions set forward. Finally, the chapter concludes with the claim that moral enhancement enthusiasm actually serves to trivialise the evils of this world, and not only to trivialise the hard-won efforts required to diminish and overcome such evils, but to misdirect attention away from the real hard work that needs to be done in facing such evils.

1. Introduction

The aim of this chapter is to argue that there is something morally dubious about the way current enthusiasm for moral enhancement is articulated in the extant literature. The goal is to show that there are numerous intellectual sins committed in the discourse, and that much enthusiasm for moral enhancement is itself morally problematic – despite, or perhaps because of, its good intentions. Moral enhancement discourse is replete with moral pronouncements regarding interventions that *should* be actualised. As such, the discourse of moral enhancement enthusiasm itself should be subjected to moral evaluation.

This moral evaluation (and ultimately disapproval) of the discourse will proceed through three stages. First, we shall look at the chequered history of various societies' attempts to cast evil, character, and generally undesirable behaviour, as biological problems. The term

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"history" is somewhat misleading. As we shall see, such tendencies continue unabated into the present (if anything, they have accelerated in light of recent pop-neuroscience, and tabloid misrepresentation of genetic science). Providing this historical context is particularly important. Given the profound continuity of this tendency to biologise morality, the litany of abuses committed in the process (not just by totalitarian states, but primarily by our own) needs to be made starkly clear.

Second, it will be argued that, given moral functioning's profoundly contextual and responsive qualities, any notion of a fine-grained, powerfully efficacious moral enhancement is both unrealistic and, actually, incoherent. Since enthusiasts' hopes are unrealistic and incoherent, such enhancement would not even be capable of providing the transformative ends that supposedly justify the sometimes extreme prescriptions set forward.

Finally, the chapter concludes with the claim that moral enhancement enthusiasm, given the unjustified optimism surrounding its potential efficacy, actually serves to trivialise the evils of this world, and not only to trivialise the hard-won efforts required to diminish and overcome such evils, but to misdirect attention away from the real hard work that needs to be done in facing such evils. The focus lies, instead, on advocating for unrealistic techno-fixes and easy answers that cannot be forthcoming.

2. Biologising Morality

2.1. From History to the Present

> Perhaps evil is a disease – one we can treat. [Then] you could start to define and describe the basic flaw in the human condition. "Just as a constellation of symptoms such as fever and a cough may signify pneumonia, defining the constellation of symptoms that signify this syndrome may mean that you could recognise it in the early stages". [And] if evil really is a pathology, then society ought to try to diagnose susceptible individuals and reduce contagion.[1]

As can be seen from Izhak Fried's proposal quoted above, the desire to biologise morality, to predict bad behaviour and to pre-emptively

[1] Izhak Fried, quoted in Laura Spinney, 'Is Evil a Disease? ISIS and the Nueroscience of Morality', *New Scientist* **3047**, 14th November 2015: https://www.newscientist.com/article/mg22830471-000-syndrome-e-can-neuroscience-explain-the-executioners-of-isis/.

"treat" it remains strong. Such a desire manifests in numerous forms. One can still observe discourse and policy pointing to heredity as the cause of crime; one can see tabloid headlines warning us about so-called "psychopath genes", "nefarious amygdalae", and "addictive brains" – evocative terms which very poorly describe the actual science surrounding these matters. With Fried we observe the latest mainstream academic attempt to describe evil itself as a literal neurological disorder, the so-called 'Syndrome E',[2] which articulates genocide in terms of faulty neurological machinery. Terms like "chemical imbalance", though shown to be without empirical foundation, pervade the public lectionary, used by psychotherapeutic professionals and public alike for explaining the root cause of persons' inability to conform, to behave desirably, and to be happy whilst doing so. Deceptive misconstruals of empirical research have seduced (and continue to seduce) various interested parties into clothing what are, all too often, cultural mores and social deviance in apparently objective, genetically, neurologically, or psychologically defective terminology.

Not least amongst those deceived by misapplications of medical metaphors in describing moral functioning are the enthusiasts for moral enhancement, who rarely bring into question the rather large gap between the colourful, though misleading language used in the dissemination of science to the general public, and the much more hesitant and limited claims made by most of the empirical researchers themselves. A critical inspection of the various empirical work on moral functioning reveals a much more ambiguous and conflicting picture, one which does very little to justify the sorts of excessive optimism that pervades the enthusiasts' discourse.

The misapplication of medical metaphors and psychotherapeutic labels when describing moral functioning, and the simplifications involved in such language-use (both illuminating and misleading in different ways), are hardly represented only in a small fringe of enthusiasts. Hans Eysenck, the personality theorist giant, in his 1964 book *Crime and Personality* was adamant that 'criminality' could be attributed to 'levels of extroversion and anxiety causing a failure in conditioning' – failures that 'could be remedied by early childhood administration of appropriate drugs'.[3] Eysenck's proposal is one example of a whole body of work constituting an entire movement

[2] Spinney, 'Is Evil a Disease?'.

[3] Hans Eysenck, *Crime and Personality* (London: Routledge & Kegan Paul, 1964), quoted in A. J. W. Taylor, 'Eysenck – "Aloof, Dismissive"', *The Psychologist* **29**:7 (2016), 490–499.

(one well-funded by both state institutions and pharmaceutical industry research grants), taking what is considered to be problematic behaviour and attempting to squeeze it into a too narrow box of psychological disorders, so that it might be "treated" through medical means.

Long before the discourse of moral enhancement, therefore, the notion of testing, profiling, and pre-emptively drugging children to prevent "criminality" was enthusiastically forwarded by many influential names offering simple reductive remedies to profound social problems. And the fact is that pharmaceutical treatments for bad behaviour, now re-labelled "personality disorders", are multiplying in the present. This testing, profiling, and pre-emptive recommendation of pharmaceutical intervention, given the increasing prevalence of so-called behavioural modification, data aggregation, and algorithmic analysis, represents a trajectory that is only continuing to gain momentum and funding as time goes on. This is moral enhancement's broader real-world context, and if the former is not described with respect to the latter, then it risks being profoundly misunderstood.

So, there is nothing new at all in the biologisation of morality and character. States throughout the world have used, and continue to use, whatever means available (previously, psychiatry and genetics were the primary tools, and in many ways remain so),[4] for taking judgements about right and wrong, behaviours that were desirable and undesirable, matters of superior and inferior character, and articulating them in biological and medical terms. In this way, deviance and undesirable behaviour can be given the visage of objectivity and construed as physiological issues that can be, likewise, remedied through biological modes of control.

Evil and criminality, in this view, is not a person's fault, but an epiphenomenon, or phenotypic expression of a deeper biological malfunction (though the question of what precisely constitutes "normal" or "well-functioning" biology in the moral context is rarely raised). Above all, evil, when described as a physiological breakdown, brings with it the implication that deviant behaviour can be *controlled*, not by the agents themselves, who are no longer regarded as agents, but by medical professionals who alone comprehend the biological or psychological mechanisms at hand. Evil and deviance, rather than being construed as largely socially-located phenomena, can then be thought of like any other disease, which can be

[4] D. R. Alexander and R. L. Numbers (eds), *Biology and Ideology: From Descartes to Dawkins* (Chicago: The University of Chicago Press, 2010), 1, 10.

alternatively cured or sectioned, subjected to palliative care, so to speak, so that the effects of the "disease" do as little harm to society and the "infected" individual as humanly possible. We have already found in moral enhancement literature calls to segregate and monitor those with the very poorly named 'psychopath gene'.[5]

The consequence of this way of understanding bad behaviour – for whatever germ of truth it may contain – is surrounded by the sad reality of abuse. *Any* behaviour or group that is considered undesirable can be, and in many cases has been, subjected to the label of biological degeneracy, of one form or another. One need not look to the Nazis and Soviets for examples, and one must be suspicious of the likes of John Harris when he makes claims to the effect that, well, it was just the Nazis that really abused science, and since we are not Nazis we have nothing to worry about.[6] Our own Western states have been prolific, and continue to be prolific, in engaging in such a tendency. Political dissidents have been labelled schizophrenics; the "feral lower classes" considered the product of poor breeding; homosexuals considered subjects of a mental illness (and still are, in many Fundamentalist circles); and all sorts of undesirable behavioural problems were to be solved by fusing the temporal lobes of deviant individuals. Less famous examples include the relatively recent involuntary sterilisation of Native American women, and institutionalised psychiatric patients sterilised as part of a social beneficence project in the 1960s and 1970s.[7] The list of such abuses is,

[5] What is in a name? The same mutation called "the psychopath gene" has also been called "the warrior gene", and though neither are really appropriate descriptors, notice how the latter term is less pejorative than the former. Had the mutation only been labelled "the warrior gene" I wonder if it would have stirred the imaginations of moral enhancement enthusiasts quite so readily. Poor labels, in short, have led commentators far astray.

[6] R. Sparrow, 'A Not-So-New Eugenics: Harris and Savulescu on Human Enhancement', *Hastings Center Report* **41**:1 (2011), 32–42, 40. And, one might add that it is primarily Anglo-American scientistic philosophers coming from John Harris' own tradition that have been most vocal in extolling the virtues of the worst forms of moral eugenics, and the pseudoscience it was based upon – of whom the Nazis were but their most prolific students. A look at the history of eugenics in the UK and USA based on such philosophy and "science" very much disabuses us of the notion that the Nazis were the only culprits of inhuman abuses of science.

[7] G. Rutecki, *Forced Sterilization of Native Americans: Late Twentieth Century Physician Cooperation with National Eugenic Policies*, 2010: https://cbhd.org/content/forced-sterilization-native-americans-late-twentieth-century-physician-cooperation-national-.

unfortunately, extremely long and stretches consistently into the present in various forms.

The primary thing to be observed is that most, if not all, of these projects were carried out under the sincere belief on the part of the policy-makers that *they were doing something morally good* – that they were improving the moral stock of humanity. We find precisely the same sincere talk of 'beneficence', of moral obligations to enhance, coming from our moral enhancement enthusiasts.[8] This pattern is something that needs to be remarked upon. For, the above "biologise, predict, and treat" practices continue into the present most visibly under the mantle of profiling and pre-emptive pharmacological interventions for children and populations of inner-city locations most "at risk" of violence and crime in later life.

The underlying discourse can be found everywhere at present, from popular discourse, to academic discourse, clinical discourse, and even in the court systems. The pop-neuroscience discourse regarding the illusory nature of the self and conscious choice – the supposedly false image of conscious control over one's actions[9] – encounters and welcomes the neuro-legal discourse in which terrible crimes are dealt with in terms of neurochemistry, and parts of the brain are described as literally malfunctioning, as broken machinery, indicating a diminished or entirely lacking capacity for agency on the part of the accused. These narratives play into TV fiction and real life court proceedings in equal measure.

Whatever the truth of agency, of conscious control and choice (and surely no simple answer can be given), the important point for present purposes is to get very clearly in focus the extant trend which takes the locus of control for moral action, evil, undesirable behaviour and deviance, away from any given agent and relocates it into the biological domain. Moral enhancement discourse, rather than offering something fundamentally new, is itself a symptom of this overarching trend and needs to be understood as part of that larger context. Claims regarding the beneficence of moral enhancement, or its neutrality, completely neglect the historical and social context out of which moral enhancement discourse arises, and into which it would be implemented. The same old attempts at control are simply reworded in the "new" terms of the current discourse, value-judgements are then presented as objective scientific truths

[8] J. Savulescu, *Unfit for Life: Genetically Enhance Humanity or Face Extinction*, 2009: http://humanityplus.org/2009/11/genetically-enhance-humanity-or-face-extinction/.

[9] E. Valentine, *Philosophy & History of Psychology: Selected Works of Elizabeth Valentine* (New York: Psychology Press, 2014), 61.

or psychological disorders, and the process can continue unabated as if it is something completely fresh and new. Moral enhancement discourse enters in right here. Yet the same old intuition is always at play: if morality can be defined as a physiological issue *then it can be controlled*. And then it *should* be controlled. This is precisely what we find the moral enhancement enthusiasts advocating – either by means of the individual making the responsible choice to enhance, or by the state enforcing such enhancement, or incentivising it in various as yet undetermined ways.[10]

But this "*if*" regarding whether morality can be defined as a physiological issue has never been demonstrated. Worse, despite concerted efforts to do, attempts to pin morality down to biological precursors continue to fail – except under the broadest and most superficial experimental conditions. There have never been, and perhaps will never be (more on this presently), any sophisticated mapping of moral behaviour onto biological substrates. So, not only does the project of control apply morally dubious means to achieve its ends, but no-one has come close to providing a non-superficial way of describing the complexities of moral living in biological terms to begin with.

The suffering caused by such policies is felt by some groups more than by others. The overwhelming majority of interventions for social control of undesirable behaviour (which is the real moral enhancement as far as we have seen it), have been directed at the disenfranchised, the marginalised and the impoverished. When we see, for example, policies like the NHS's recent denial of non-emergency surgery to the obese (as explicit behavioural incentives to alter persons' life-choices),[11] we see that such measures are aimed specifically at those that are not wealthy. In this case, wealthy persons have private medical insurance and are utterly immune to such measures. And, of course, the larger social issues are ignored.

This observation is particularly relevant when one takes the claim made in enhancement discourse that the voluntary public uptake of moral enhancements be motivated by means of various politically-enacted schemes of social incentives and disincentives.[12] This

[10] Savulescu, *Unfit for Life*; V. Rakić, 'Voluntary Moral Enhancement and the Survival-at-Any-Cost Bias', *Journal of Medical Ethics* **40**:4 (2014), 246–250.

[11] BBC News, 'Harrogate Obesity and Smoking "Surgery Ban" Move', 7th October 2016: http://www.bbc.co.uk/news/uk-england-york-north-yorkshire-37583399.

[12] Rakić, 'Voluntary Moral Enhancement and the Survival-at-Any-Cost Bias', 246–250.

suggestion suffers from the same family problem as noted above. Such measures are socially stratified, and disincentives and incentives alike, those aimed at the finances of the populace at least, have not the least impact on the wealthy, whilst being unavoidable, and having sometimes life-altering consequences, for the impoverished. What have the wealthy to fear from so-called "sugar taxes", recently brought into the UK, aimed at disincentivising unhealthy eating? Marie Antoinette's pronouncement 'let them eat cake' will ring hollow in the ears, and stomachs, of lower income families who have up till now (because of the very low price of sugary and fatty foods) been forced to take her at her word. But, to what extent is obesity amongst the lower classes a matter of weakness of will, and to what extent is it a somewhat understandable decision given the exorbitant prices of good food? The larger issues are never addressed. Because of the excessive price of healthy foods, all too often, the choice for many impoverished families has been between bad food or going hungry – when the behavioural disincentives are put in place, what is the choice then?

The notion of dealing with the social causes of such problems is given lip service in moral enhancement discourse (as if to say: "well of course we should tackle social issues"), and then decisively bracketed from view, never to be mentioned again, with no reflection on how any supposed moral enhancement is to be integrated with these larger social and political realities, nor how they are to work alongside the social change that this most cursory of lip-service is paid to. Indeed, it is neither insignificant nor coincidental that no research at all into the profiling and pre-emptive "treatment" of white-collar criminality exists. The medicalisation of morality extends not much further than "diagnosing" and "treating" the sorts of crimes predominantly carried out by those of low income status. Since the overwhelming majority of incarcerated criminals are of lower class status, these persons present the most opportune group upon which moral enhancement will, in practice, be applied.

A recent example of precisely this can be observed in the New Hampshire prison system's decision to offer Vivitrol, an opioid inhibitor, to addicted inmates. The rationale is given as cost-cutting (Vivitrol costs $1000 per month, rehabilitation costs more than twice that – though how administrators expect the former to be effective, and thus cheaper, over the long-term without recourse to the latter is another question).[13] However, as one paper observed:

[13] K. Blessing, 'N.H. Prison System to Start Using Vivitrol — 'Wonder Drug' for Addicts Already Given in Mass.', *Eagle Tribune*, 8th May 2016:

'[m]any experts view prisons – where addiction's human toll can be seen most clearly – as a natural place to discover what works'.[14] Opinions differ however, with some experts suggesting that Vivitrol has saved lives, and others noting that '[w]hen the injections stopped, many in the study relapsed. A year later, relapse rates looked the same in the two groups'.[15]

Moral enhancement enthusiasts too often refuse to recognise the realities in which any moral enhancement, if applied, would become manifest, or the sorts of interests that would profit from co-opting moral enhancement discourse. Our extant system is already replete with modes of socially stratified behavioural control, with many more being developed. This is the concrete context which will define and co-opt instantiations of moral enhancement. And, to the extent that moral enhancement would be, *de facto* (and regardless of good intentions), an extension of social control,[16] then given such social control extends above all to the marginalised, advocating moral enhancement implicitly involves advocating morally dubious modes of socially stratified biological control over the least protected subjects in the general population.

Understood in this way, one can see that the words "moral enhancement" themselves have a mystique that conceal something less illustrious. If one were to ask: "what is moral enhancement, really?" – breaking the term down into its practical instantiations suggests that "moral enhancement" is really little more than a euphemism for prescribing drugs, profiling, monitoring, therapy, and perhaps surgery. Then one sees that such enhancement would not involve anything fundamentally new, but rather be a simple extension of current social practice, for better or worse, and a further entrenchment

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http://www.eagletribune.com/news/new_hampshire/nh-school-bus-drivers-to-vote-on-possible-strike-tonight/article_2dd6d086-aa99-11e6-a77f-d3e0eb9053dc.html.

[14] C. K. Johnson, 'Prisons Fight Opioids With $1000 Injection: Does it Work?', *Associated Press*, 14th November 2016: http://www.dailymail.co.uk/wires/ap/article-3933514/Prisons-fight-opioids-1-000-injection-Does-work.html.

[15] Johnson, 'Prisons Fight Opioids With $1000 Injection'.

[16] A deconstruction of the notion that individual choice and social control are so sharply distinct. Even voluntary moral enhancement would have its social context and imply social obligations to "voluntarily" take up such enhancement. See H. Wiseman, 'SSRIs and Moral Enhancement: Looking Deeper', *American Journal of Bioethics Neuroscience* **5**:4 (2014), 1–7.

of the goods and evils thereof. This larger context, bringing moral enhancement back to earth, as it were, diminishes the seductive qualities of the beneficence claims made about its salvatory power, or its power to drive forward the moral evolution of mankind.

2.2. Morality and the Mechanistic Metaphor

This misuse of medical metaphors is only part of the problem here. For the objectification of matters of character and morality are combined with the overwhelmingly biomechanical thought-world applied by philosophical moral enhancement enthusiasts, which still envisages, consciously or not, the human person as a *bête machine*. This has fostered a kind of reasoning which proceeds as follows:

a) humans are biological mechanisms, problems with which can be understood as mechanical breakdowns, and thus every human problem merely needs to be located somewhere in his biology;
b) the biological, mechanical part responsible for the human or social ill in question can be isolated from the whole, as a cog or piston can be isolated from other elements in a mechanism; and
c) that problem can then be rectified by simply repairing the malfunctioning biomechanical piston or cog responsible for the bad character and general misbehaviour of the person or group in question (examples below).

In combination, these two processes, the medicalisation of values discussed above, and the mechanistic thought-world, are extremely destructive. On its own, mechanistic metaphors provide a helpful, though provisional, way for scientists to approach their problems. Scientists simplify their problems so as to find better ways of modelling and grasping reality. But metaphors, illuminating and necessary as they are in the scientific process, can be just as misleading if one does not grasp the basic science through which the metaphors make sense. A recent example of the havoc that comes from talking in simplified metaphors can be found in the physics discourse surrounding "the holographic universe". While there is a sense in which the universe can be understood broadly as functioning in some of the same ways that a hologram works – it is a helpful metaphor for physicists who understand the maths of it all – the metaphor then runs wild amongst the public, and one finds senseless discussions about the implications of 'the unreality of reality' even in philosophical

discourse.[17] This is a helpful example, for one can readily see the problem in this instance: commentators have simply taken a colourful metaphor too literally, and got carried away in their speculations because of it. *But biological metaphors are more deceptive*. What happens when one starts talking about "psychopath genes", or "the moral molecule", or "neurological machinery"? What happens when medical metaphors and psychotherapeutic labels proliferate? They are taken literally, and philosophers and the public alike are misled by them. The simplifications that scientists rely upon, and understand, run wild and philosophers and public alike, not grasping the nature of the science, start making unfortunate claims on the basis of a misunderstood set of shorthand labels. Moral enhancement enthusiasm is constituted almost entirely on the basis of such misunderstandings.

So many examples of misleading mechanistic metaphors can be found in the relevant literature. Joshua Greene has been quoted talking about impulsive criminality as 'faulty machinery', then discussing the implications for the legal system given the lack of responsibility on the part of such apparently helpless, brain-defective subjects;[18] "optogenetic" treatments for addiction are presented as if addiction were a literally an engineering problem, a "neurological disease", relating to the transmission of dopamine through synaptic pipework; whilst aggression is talked about, *vis-à-vis* serotonin, in much the same way one talks about putting oil into the engine of a car – too little serotonin and the engine starts to growl and fume, whilst just enough serotonin lubricates the mood, making persons less punishing and less liable to erupt into a violent rage.[19] The list of such bio-reductive, mechanistic simplifications continues to increase.

Despite everything we continue to learn about the complexity of genomic and neuron interactions with other complexities such as epigenomic and neuronal plasticity, development, and social-environmental interactions,[20] the optimism that the moral character of humankind might eventually be perfected through genetic selection,

[17] N. Bostrom, 'Are We Living in a Computer Simulation?', *Philosophical Quarterly* **53**:211 (2003), 243–55.

[18] C. Goldberg, *Beyond Good and Evil: New Science Casts Light on Morality in the Brain*, 2014: www.commonhealth.wbur.org/2014/08/brain-matters-morality.

[19] M. Crockett, L. Clark, M. Hauser, and T. Robbins, 'Serotonin Selectively Influences Moral Judgement and Behavior Through Effects on Harm Aversion', *Psychology and Cognitive Sciences* **107**:40 (2010), 17433–17438.

[20] I. Gadjev, 'Nature and Nurture: Lamarck's Legacy', *Biological Journal of the Linnean Society* **112**:1 (2015), 242–47.

pharmacological intervention, and neurosurgery, remains unsinkable. But, once one has taken on board the fact that contemporary biological research, on the whole, is increasingly coming to view biological causality as an immensely convoluted web of innumerable interactions across numerous scales (and constituted precisely as the *interaction* of such parts), the prospect that there might be a clear and identifiable "biological cause" for a given moral trait becomes more and more unrealistic.

By extension, the idea that fine-grained enhancement of something so sophisticated as human moral functioning might be developed, has to dissipate with the notion of the identifiable "biological cause" for morality that it is constructed upon. No such mechanical cogs and levers exist. Altering biology in systemic, multiscale wholes – such as human beings in their social contexts – proffers no reliably clear improvements with respect to complex behaviours which rely, instead, on the interactions of innumerable biological factors taken in relation to their environmental whole.

So, the key reality that serves to deflate the idea of finely-grained moral enhancement is that biological factors are but one element in a long recursive chain of causal inputs, and so it makes no sense to either talk of biology in isolation or to think of biology as a primary cause of sophisticated moral functioning. When one starts to understand things in this way, realising that biology plays but a partial, and essentially unclear role in moral functioning – a role that manifests precisely as interactive, rather than as being based in "biological causes" – the widespread optimism regarding moral enhancement has to be overwhelmingly drawn back.

In reality, the very same biology that contributes to one's ability to reason morally contributes to our ability to reason immorally, the same biology that contributes to human empathy also contributes to human aggression. The two cannot be disentangled. All of the powers required for moral functioning are spread out over innumerable biological interactions, a web of interactions whose synergistic operations make possible both moral and immoral behaviour alike. It is precisely because moral functioning is so sophisticated that it relies as its bedrock upon such an immensely convoluted biological foundation of powers and capabilities. It relies upon an integrated base of cognitive and affective, imaginative, somatic, and responsive powers that are not readily separated, nor manipulated in any sophisticated way that would allow for a specifically moral enhancement.

Simply put, enthusiasts' hopes here are based on a basic misunderstanding of human biology. Whatever moral enhancement might be possible, it must be broad-scope and very limited in nature. With

that, we have returned to the sledgehammer approach that is already available, so-called because such interventions can only be effective, at best, by making tremendously broad changes to the organism's biology as a whole, creating numerous side-effects that might just as well diminish other moral powers (for example, SSRIs for reducing explosive aggression have, in some cases, resulted in an increase in pre-meditated aggression).[21]

In any case, even with moral bio-intervention, the overwhelming morally generative work would still remain on the side of individual cultivation, combined with social-environmental, political, developmental, and psychological encouragement of "desirable" behaviour. For these remain the dominating factors in giving conceptual shape to the enactment of particular behaviours that are deemed moral or immoral. As such, bio-intervention offers little by way of resolving the larger context of humankind's moral difficulties. Cultivation of fine-grained moral functioning will continue to require, as it has always required, the shape that can be given only by social scaffolding, personal reflection, and clear intent. If social change is the dominating factor regarding the "grand scale" of moral functioning, attention needs to be directed first and foremost towards those ends. And, when one recognises that sophisticated moral functioning simply is not appropriately understood in biological terms, *that biology was the wrong place to be seeking answers to begin with*, then the entire bottom falls out of the hope for some sophisticated bioenhancement of moral functioning, and the "grand" project simply falls apart.

3. Context, Responsiveness, and the Challenge to Fine-Grained Moral Enhancement

Apart from these biological realities, one sees the notion of fine-grained moral enhancement is conceptually incoherent on its own terms. Whenever one is talking about fine-grained moral enhancement one must always be mindful of the manner in which contextual factors modulate how moral acts are to be expressed *in situ*. Moral living is

[21] See H. Wiseman, 'SSRIs as Moral Enhancement Interventions: A Practical Dead End', *American Journal of Bioethics Neuroscience* **5**:3 (2014), 1–10. *But why this privileging of the biological mode at all?* Humans are biological beings, of course, but we are also social beings, and we are also psychological beings, and responsible beings, and we have innumerable dimensions besides. So what would even make one think that biology should hold the keys to moral improvement anyway?

always responsive to context and most moral activity must be shaped in relation to the situation in which one's actions are expressed. Even the most simplistic forms of moral absolutism face this problem. For example, if one abides by the strict rule "be kind unto others", one is still faced with having to figure out how to express appropriately that kindness in any new situation that one finds oneself in.

Context is a thorny issue for commentators here. It is almost universally acknowledged that context is significant with respect to moral enhancement, yet few seem to bring the notion to bear as part of any extended exploration of the matter. At the very least, moral enhancement enthusiasts seem to think that universally extolled moral virtues like "empathy" or "kindness" can somehow be enhanced in an abstract, all-encompassing sense. Such thinking is problematic because the situation is always in part constitutive of the moral good in question. Moral goods are underdetermined with respect to form and shape. They can be applied, or misapplied, in as numerous a set of ways as the range of potential situations in which the moral good in question might be called for. When empathy, or kindness, or generosity, or trust (to take but a few examples mentioned in the literature), can take so many different potential forms, the notion that any of them can be simply enhanced in a generic or abstract way cannot be made sense of.

So, it should be no surprise that any links between a given moral good and biological substrates have proven themselves impossible to reliably pin down – the underdetermined nature of moral goods gives them an ephemeral and shifting quality that is challenging enough to articulate in conceptual terms (and it is no small matter that no-one can even agree upon how to conceptually define particular moral goods like empathy in the first place), let alone finding specific biological substrates that map onto these multiform goods which take their sense at least in part through instantiation in concrete contexts.

Moreover, any moral power or trait that one can think of will always require some degree of practice by which the person involved gains some embodied sense (to varying degrees conceptual, intuitive, and practical) of how that moral power is to be instantiated across the given range of contexts appropriate to it. This is one reason why focussing on the cognitive prospects for moral enhancement can in no way be adequate: the cognitive aspects of moral living are but one part of a larger integrative, embodied whole, and so too with affective moral enhancement.[22] This responsive, practical, embodied

[22] And "embodied" is meant to indicate that moral activity is not something done solely "in the brain", but rather relies on the faculties of a whole

dimension of moral living is, as I have argued elsewhere,[23] impervious to biomedical enhancement.

Though it is a well-rehearsed point, it is important to note that situationality also throws up problems for enhancement here simply because all moral goods can be harmful in the wrong context. Being primed to act compassionately, for example, might not be morally helpful in situations that call for some tough policies. The political problem of so-called "dirty hands" articulates the sad reality that sometimes the greater good is only obtained by doing bad things. A nation's security services, for example, might be disabled if prohibited from certain immoral activities. Likewise the journalistic press, insofar as they are acting in the public interest, might be forced to engage in dubious activities to obtain the truth (as the adage goes, "good journalist, bad person"). So, even if a particular moral good could be enhanced in some generic sense, this would not necessarily lead to improved outcomes over all – and one's enhanced motives, though well-intentioned, could find themselves being inappropriate to the given situation.

Moreover, different situations demand flexibility with respect to different, and often contrary, moral powers. There are times when one needs to be co-operative to achieve one's moral aims, and there are times when one must stand one's ground, or times when one must stand alone. Moral living requires a practiced ability to discern moral salience and selectively modulate moral impulses as necessary – how would a moral enhancement technology know which to motivate and when? It is of little use saying that one could enhance a person's ability to know what is morally required in different circumstances. Again, the faculty of moral discernment is not a cog of which one can point to the bit of biology involved and say: "there, let us enhance this thing". Enhancing some elements of cognitive responsiveness is certainly possible. But even then, this would not be a *moral* enhancement, for that would mean enhancing a person's

person embedded in a situation, comprehending that situation as "ready-to-hand", as phenomenologically situated within that situation, as opposed to thinking of moral activity as nothing but a set of neural processes applied abstractly. For an account of how comprehension and reflection involve embodied, that is, not purely neurological activity, see N. Murphy and W. S. Brown, *Did My Neurons Make Me Do It? Philosophical and Neurobiological Perspectives on Moral Responsibility and Free Will* (New York: Oxford University Press, 2007), 240.

[23] H. Wiseman, *The Myth of the Moral Brain: The Limits of Moral Enhancement* (Cambridge: The MIT Press, 2016).

capacity to see and exploit the evil potential of a situation every bit as much as the good – and the fundamentally ambiguous relation between biology and morality is thereby further underlined.

It is also worth considering that moral enhancements do not have an "on/off switch". It would be a strange thing indeed if one could devise some contraption wherein one could press a button to say "enhance my ability to discern what is morally appropriate", and then press another button to say "empathy is required now", or to press another button which can say "empathy is not appropriate here, diminish my empathic impulses accordingly". The prospect seems somewhat farcical, and, again, based on a rather basic misunderstanding of how human biology works.

The contextual problems are yet more manifold. Say an enhancement did exist to enhance one's moral discernment of which virtue to apply, and could even stimulate the will to apply that virtue (even to the appropriate amplitude), such technologies would not be of much use in moral dilemmas, or in situations in which there are conflicting groups all making legitimate claims on one's empathy. Say an enhancement increased one's empathy, could it differentiate between different parties, weighing moral claims, such that one particularly deserving group was empathised with but not others? For *whom* exactly is one to have empathy, and what are the reasons for this in the particular context one is in? Moreover, it is worth considering that increasing empathy might lead to avoidance of moral situations. Sometimes the sensation of empathy is experienced as an unpleasant state, which can be responded to by means of aversion. Who does not occasionally turn their eyes away from the suffering and misfortune of others? This is not because one feels no empathy, but precisely because one does feel empathy.

In short, sophisticated moral functioning seems to defy the sort of generic approach that is assumed by moral enhancement enthusiasts. This need for responsiveness in determining timing and intensity of so-called "moral emotions" is particularly problematic for advocates of so-called "affective moral enhancement", who seem to think that unreflective impulses, urges, emotions, and affect generally have some manner of intrinsic moral status in and of themselves. The idea seems to be that emotions can be biologically dissociated from one another, that undesirable behaviours can be isolated in terms of their base affective impulses, and that these Lego-like dissociable impulses can then be selectively removed or enhanced at will. But emotions are not like this. And, in the real world, moral situations are often obscure, emotions are often conflicting and messy, and equally compelling reasons push one in multiple directions. Too

often, as far as real life moral living goes, there are numerous moral paths, or sometimes no "right answer", and sometimes there are simply "no win" moral scenarios wherein someone has to lose out somewhere. It is hard to imagine how some technology could help resolve the emotional messiness of moral living.

Even a computational machine with unclouded moral motivation and judgement would fail to reach moral perfection, following this logic, because that robot would still face precisely the same real world problems we do. Namely, having to respond to competing claims, coping with competing visions of the good, dealing with "no-win situations", balancing near and far-sightedness, weighing interests, making trade-offs and defending them against those who think differently, knowing when to break the moral rules, then discerning and enacting the appropriate extent to which any moral good should be amplified or diminished to provide the most morally appropriate response given one's situation.

All of these context-based considerations, I suggest, make a mockery of the notion of fine-grained moral enhancement – which, in this light, presents itself as both unrealistic and conceptually incoherent. It is understandable, then, that the profoundly contextual nature of moral functioning gets roundly ignored by moral enhancement enthusiasts. Context presents a range of obstacles to fine-grained moral enhancement that cannot be plausibly overcome. One might suggest, therefore, that the failings of moral enhancement are not merely failures of present technology such that they might be overcome "in the future". Rather, such failings might be inevitable and necessary in light of the contextual responsiveness that moral living demands, combined with the indirect and ambiguous relationships between biology and moral functioning. These will always be the limits to what moral enhancement can achieve. In which case, moral enhancement might have, more or less, already reached its technological zenith.

4. Trivialising the Hard-Won Conquest of the Good

Who can be blamed for wanting a magic wand for dealing with the evils of the world? Every day one is confronted with war and the inordinate profiteering from it. Gangs, human trafficking, drugs, money laundering, and all manner of human exploitation flourish at the international level. Honour killings are reported nearly every day. Drone strikes kill civilians indiscriminately, and such deaths are covered up by the states perpetrating them. Spree killings occur frequently. Child soldiery, social injustice, poverty, and

environmental destruction are rife. The logic of mutually assured destruction represents the victory of rationality over good sense. We face gun crime, knife crime; domestic violence and torture; at home and abroad. The pervasiveness of human evil and weakness seems to be everywhere one cares to look.

So again, the wish for some magical technology that might deal with such corruptions is understandable. But it is precisely because of the severity of such evils that one should be adamant in resisting the retreat into easy answers. No-one is denying that evil can be seen in almost every facet of human activity, and no-one is denying that mankind is on the precipice of technological self-destruction. The suggestion, instead, is that moral enhancement will not, and *cannot* offer the least bulwark against these realities. Moral enhancement simply is not capable of being potent enough, nor fine-grained enough, to make the needed changes.

Moreover, I would suggest that it is morally blameworthy to place one's hopes in such fantasia, when real work needs to be done elsewhere. Such retreats are cheap and easy, and since they have no workable basis in reality, the diversion of attention and discussion towards hopes of techno-fixes of this order actually threatens to trivialise the suffering in this world, as well as the all-too-real sacrifices made by persons throughout the globe in attempting to confront such evils. The severity of such realities makes it all the more important that lazy proposals regarding completely unrealistic bio-interventions not be allowed to take up the centre ground.

Calling moral enhancement enthusiasm intellectually lazy may sound strong, but the moral disapprobation is just. There is no short supply of examples of enthusiasts that refuse to look in the eye the practical, political, historical, and biological realities that severely undermine their proposals. A brief survey will suffice to indicate how enthusiasm here has led contributors to skirt what are fairly obvious, and severe, impediments to their future enhancement designs.

For example, we hear Nick Bostrom talking of humans beings potentially being provided with genetically-engineered oxytocin receptors for our brains to make us more compassionate.[24] But, oxytocin does not operate in nearly this kind of way, and can in some instances make persons more aggressive to members of out-groups.[25] Again,

[24] In J. Hughes, *Virtue Engineering,* 2016: http://ieet.org/.

[25] C. De Dreu, L. Greer, M. Handgraaf, S. Shalvi, G. Van Kleef, M. Baas, F. Ten Velden, E. Van Dijk, and S. Feith, 'The Neuropeptide Oxytocin Regulates Parochial Altruism in Intergroup Conflict Among Humans', *Science* **328**:5984 (2010), 1408–1411.

empathy and aggression are conjoined twins – sedating aggressive persons lessens their capacities to care, and increasing their empathy can produce violent indignation against those considered to be outside their own group, whether such indignation is merited or not. There is no one without the other.

Then we hear that technologies should be generated to directly feed glucose into the brain in order to enhance willpower.[26] Traditional methods of increasing brain glucose, like drinking a sugary beverage, or proper diet, are not adequate it seems, instead we need "technology" to feed this apparently morally efficacious carbohydrate directly to the brain. Yet, the nuances of something so multifaceted and diverse in form as willpower are not the sort of thing that can be sufficiently well reduced to brain glucose levels in the first place, such that neuro-devices (and presumably the surgery required to implant such devices) could be justified. Are there no better ways of improving will-power than by neuro-surgically implanting glucose feeders into the brain? And just how much benefit is this likely to yield? The whole prospect is based on a misreading of pop-science – for, while it is true that exhausted persons find it harder to motivate themselves (an obvious truth, they are exhausted after all), I fail to see why directly implanting glucose into the brain is going to have any more beneficial effects than, say, drinking orange juice, or taking a brief nap – all of which have the advantage of not requiring complex neurosurgery to be efficacious. Common sense does seem to be lacking here.

Then we hear that mankind is on the verge of self-destruction and therefore needs to be compelled to use "technologies" in order to save us from very present techno-oblivion.[27] But, the authors of such proposals themselves note that such nondescript "technologies" neither exist, nor are they even on the horizon with respect to the time-frame in which we are so endangered (i.e., now). Present dangers, which are real, are used as a vehicle to justify future undevised technologies, which, as yet, have no shape, form, or content about which moral evaluation might be carried through. Then, very real crimes, and very real suffering (like the Virginia Tech massacre) – with living members of the public still coping with the consequences of these tragedies – are used to justify the need for these as-yet fantastical modes of compulsory moral enhancement. It seems insensitive, to

[26] Wiseman, 'SSRIs as Moral Enhancement Interventions', 9.

[27] Savulescu, 'Unfit for Life', 2009: http://humanityplus.org/2009/11/genetically-enhance-humanity-or-face-extinction/.

say the least, to exploit real suffering to make such extreme and ill-formed proposals.

Next, we hear proposals that marriages might be saved by putting together some "love" philtre composed of oxytocin, drugs, and other hormones[28] – as if the nuances of human relationships and human disagreements can be resolved through drug use and such quick fixes. Note that my central claim throughout has been, not just that such proposals are weak, but that they are actually morally blameworthy. Would it really be a step forward in the responsible management of human difficulties (of which marital strife might be considered one form) to suggest that the parties be put on drugs that produce the effect of making them like each other more? This sort of proposal is a microcosm for moral enhancement enthusiasm. I would suggest that the intrinsic higher motives of most persons would be profoundly dissatisfied with such easy techno-fixes on the existential level, and that the public would ultimately reject such practices even if they were made available (I would like to think that medical professionals themselves would eschew such shallow proposals before they became policy to begin with).

A few more illustrations will suffice. We hear proposals for the moral enhancement of judges, justified on the grounds that their judgements should become more reliably Rawlsian.[29] We hear talk of an oxytocin-fuelled world of hugs, and warmth, generosity, and economic prosperity.[30] We hear talk of genetically enhancing serotonin receptivity in order to make persons more politically liberal-leaning.[31] The list continues seemingly without end. And, the simple fact is that I have listed here but a partial catalogue of the fantastical, bizarre, poorly thought through, and often patently ridiculous claims that have been made by leading philosophers at the highest scholarly level. Is it really morally appropriate to place sincere hopes in such things when one is confronted with the present reality of suffering and evil?

[28] K. Hookem-Smith, 'Experts Recommend a "Love Pill" to Save Marriages', *Yahoo News*, 3rd May 2012: https://in.news.yahoo.com/love-pill-save-marraiges-relationships-couples.html.

[29] G. O. Schaefer and J. Savulescu, 'Procedural Moral Enhancement', *Neuroethics* (2016), 1–12.

[30] P. Zak, *The Moral Molecule: The New Science of What Makes Us Good or Evil* (London: Bantam Press, 2012).

[31] J. Hughes, *The Benefits and Risks of Virtue Engineering,* 2012: http://bioethics.as.nyu.edu/object/bioethics.events.20120330.conference.

And what of the idea, variously discussed in the enhancement literature, regarding prospects for indiscriminate, society-wide implementation of moral enhancement?[32] In terms of political and practical realities, this prospect is untenable. One might consider two forms of moral enhancement – pharmaceutical or neuro-surgical. The logistical problems here are overwhelmingly decisive in negating such society-wide prospects. Consider that, just in the UK there are 65 million persons, and in the USA there are 324 million persons. Are we to think the NHS or Medicare could cover mandated neurosurgery for the entire nation? Neurosurgery is, and will continue to be, an incredibly risky business (problems of post-operative infection, allergies and rejection, technological breakdown, malfunction, and decay, cannot be avoided). Such surgery is fraught with dangers and a recourse of last resort, a real world practicality seemingly forgotten by enhancement enthusiasts. Or, what about the costs of ongoing prescriptions for nootropic morally improving pharmaceuticals for every man, woman, and child, into perpetuity, so that they might have some limited increase in their powers of appreciating moral salience? Just how many moral enhancement drugs are the general population expected to consume – a drug for empathy, a drug for trust, a drug to increase charitable donations, a drug to increase moral discernment, a drug to enhance moral imagination, a drug to overcome moral cynicism? That is a lot of drugs.

So, is the prospect of encouraging medical intervention for the entire population even desirable? Scrutinising the logistics of such a proposal helps indicate that it is neither desirable nor feasible to instantiate moral enhancement on this level. How would persons be tested to ensure they are taking these moral enhancement drugs? Blood testing kits at voting booths? And, would the drugs' side-effects (there is no drug that is without side-effects, or that does not perpetrate some manner of long-term damage through on-going use), given through life-long use, justify the cost of having a nation of life-long drug users? How many decades of safety testing would such drugs require to ensure they are safe for life-long use? What populace would stand for mandated neurosurgery or drug-use being imposed upon them?

[32] It is possible to have selective society-wide moral enhancement. This would be directed at members of given categories, say, those perpetrating crimes on the basis of their addictions to drugs or alcohol. It is current practice in the UK to place drug addicts in rehab as part of their sentence. See H. Wiseman, 'Moral Enhancement: "Hard" and "Soft" Forms', *American Journal of Bioethics* **14**:4 (2014), 48–49.

And, why would a pharmaceutical company devote billions in research for compounds to enhance various moral traits?

Therefore, the prospect of state-wide moral enhancement is not only convoluted and wholly impractical, it is financially unprofitable, and so undesired by all parties involved,[33] that one can reasonably conclude that state-wide moral enhancement of the sort proposed in the literature is not something that we are likely to witness any time soon. Here again, such enthusiasm represents the triumph of logic over good sense, of dislocated rationality over any kind of reasonableness.

But what really gets lost in all this is the "hands on" element of those trying – in the real world – politically, socially, institutionally, journalistically, and through creative media, to bring awareness and change to regions of the world where evils are pervasive. Moral enhancement can never realistically hope to impact a society in which, for example, a brutal "honour code" is woven into its fabric. Yet, through media focus on such evils as, say, the caste system in India, genuine change seems, slowly, to be occurring.[34] The sacrifices and suffering of those bringing such crimes to light is truly heroic, and, in contrast to this, diverting one's attention towards incoherent techno-fixes should indeed be subjected to sharp moral critique.

Instead, the severity of such threats demand of our philosophical commentators much greater care and sensitivity with respect to the claims that they put forward. If there is any moral obligation that the presence of such evils puts upon us, it is to take such matters seriously, to be responsible towards them, and not to exploit them by making the sorts of outlandish (and dare I say, morally offensive) proposals that we have been exploring above.

[33] A cynical eye might also observe that Western affluence is continually premised on exploitation of the developing world, and that our citizens benefit from not looking too deeply at any potential moral obligations implied to resolve such exploitation.

[34] It is interesting to note that the caste system is illegal in India, yet it prevails, particularly in rural areas. Changing laws is one helpful step, but changing attitudes towards systems that have been in operation for so many generations is a big challenge. It is hard to imagine how some technology or drug would contribute in any way towards changing such attitudes towards social stratification, and the terrible discrimination against such 'untouchables'. See Ravi Agrawal, 'India's Caste System: Outlawed Yet Omnipresent', *CNN*, 24th February 2016: http://edition.cnn.com/2016/02/23/asia/india-caste-system/index.html.

5. The Sins of the Discourse

To conclude, then, I would like to point out the irony of an enthusiasm for moral enhancement that is itself lacking in so many intellectual virtues. The enthusiasts' discourse, I suggest, sins against the standards of excellence demanded of rigorous intellectual conversation in what I consider to be morally problematic ways. Such enthusiasm has rejected historical and sociological analysis, and has ignored the larger present context which embraces it. By extension, such enthusiasm has not seen that it is a symptom and extension of larger, and often disturbing set of attempts to biologise and control human behaviour. Enthusiasm has not adequately confronted the extent to which moral enhancement would inevitably be implemented (as such interventions have been, and continue to be) as socially stratified modes of behavioural control levelled primarily against the least protected amongst us.

Such embracing social and historical trajectories must surely make us rethink the beneficence claims behind moral enhancement projects (innocent enough as such claims may be on the part of the philosophers), and re-envision moral enhancement as simply another branch of the perennial project of social control. In such a case, moral enhancement would itself produce various forms of morally problematic phenomena. Or, put differently, moral enhancement would itself be an open invitation for various immoral applications given in an existing social context already primed for such abuse.

We see that there are many other intellectual sins committed in the discourse. Enthusiasts have made excessive use of pop-science that they do not understand. Nor have they taken the time to investigate, evaluate, or think at all critically about such science either. Even the wildly effusive Paul Zak is careful when wearing his academic apparel to state clearly how tentative and limited his actual findings have been. The use of metaphor in science, which is a necessary device in coming to generate novel understandings of the natural world, is a dangerous thing when transmitted through media that like buzzwords and exciting headlines. Enthusiasts have not been careful enough regarding their reception of such science to differentiate between the metaphors and colourful buzzwords, on the one hand, and the more subtle and limited science on the other. Even then, such empirical work has not been subjected to the least critical scrutiny, and some of the science upon which moral enhancement claims rest is superficial and dubious in the extreme.

Worse, enthusiasts for moral enhancement have not taken adequate care to ensure that their concepts are coherent, even at face value. We

have argued that the most cursory analysis of how context shapes moral living gives us powerful reasons for thinking that any kind of fine-grained moral enhancement is impossible on its own terms. Enthusiasts have simply bought in, wholesale, to the current trend of attempting to medicalise all facets of human existence, without even subjecting that tendency to moral evaluation, or recognising the moral dubiousness of the consequences of attempting to characterise all human activity in biological terms above all. The greed for biotechnological solutions to what are, in the end, non-biological problems, has been gluttonous – certainly at the expense of more meaningful ways of thinking about how the very real evil in the world might be better managed (namely, institutional and political exchange; creating wise leaders and inspiring persons; forging international legislation; the use of investigative journalism and various media for bringing light to the invisible suffering of those around the world; mentors, modelling, exemplars; and so on).

The worst sin of all, because it refers to real suffering and justifies itself on the backs of real persons that have to cope with the consequences of terrible crimes, is the trivialisation of the evils of this world by misdirecting attention away from much needed real activity towards unrealistic hopes for easy answers and techno-fixes to our moral problems. Perhaps if moral enhancement enthusiasts shifted their focus away from the standard terms of present discussion, and refocussed on considering present forms of moral enhancement *qua* social-paternalistic influence (which are increasingly rife and prolific with respect to the scope of the interventions used), and the pathologisation of social deviance into objective medical terminology (which is proving itself increasingly profitable and likewise prolific), enthusiasm might move more quickly in a positive, serious, and worthwhile direction.

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