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A Future Political Framework for Moral Enhancement

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Abstract: The various forms of human bioenhancement, in particular moral enhancement, represent a major topic of contention in both bioethics and futures studies. It is argued here that voluntary moral bio-enhancement (and other types of moral enhancement) should be based on an opt-out moral bioenhancement scheme. Such a scheme would avoid the objections facing a voluntary opt-in moral bioenhancement scheme. The political framework for opt-out MBE is a minimal state. It is explained why the minimal state framework is aptly described as utopian. The concept of voluntary opt-out moral bioenhancement in a utopia is analyzed in detail.

Keywords: human bioenhancement; futures studies; biopolitics

1. Introduction and Background

The impact of transformative technologies upon human life and culture, such as biotechnology or artificial intelligence, can hardly be overstated. The external aspects of the impact are readily perceivable, yet they are inseparable from the internal—dramatic changes introduced by technological evolution into both the physical constitution and the self-awareness of homo sapiens itself. Since the dawn of civilization and the emergence of enterprises such as agriculture, medicine and civic engineering, humanity has been modifying both its physical environment and itself as a species, in an continual series of complex feedback loops. In recent decades, the accelerating nature of this process has been recognized by many transhumanist and other future-oriented thinkers, while the potential inherent in a looming transition into an entirely different, post-biological evolutionary organization has become the focus of research in many quarters (e.g., Moravec 1998; Kurzweil 1999, 2005; Hughes 2004; Bostrom 2014).

The post-biological realm refers in present-day parlance to the general application of the convergence of nanotechnology, biotechnology, information technology and cognitive science (NBIC) to improve human performance. While this construal might be an oversimplification — certainly, there may be unsuspected or unknown technological variables in play — it nevertheless suffices for the needs of an exploratory study such as the one undertaken here. Although the specifics may vary, we have reason to expect that NBIC convergence satisfactorily describes the human approach to the post-biological era (see for instance, Canton 2004; Bainbridge and Roco 2006). NBIC convergence includes physical, cognitive, and moral bioenhancement, in ascending order of consequential magnitude for humanity in everything it represents, as evidenced by the tone of growing urgency attending the reception of each proposed type of enhancement. Thus, there is little doubt that moral bioenhancement (MBE) is both the most consequential and the most controversial of all forms of bioenhancement.

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During the last decade, the concept of MBE has been strongly advocated in the work of Ingmar Persson and Julian Savulescu, who defend the idea that human morality is evolutionarily unprepared for the contemporary moral challenges posed by new technologies. This drastic unpreparedness is apt to lead to what these writers call the "ultimate harm": a situation in which worthwhile human life on this planet becomes permanently impossible (Persson and Savulescu 2008). Trivial yet standard examples of ultimate harm are global nuclear winter or an impact of a large asteroid; other, less transparently characterized, catastrophic processes have been proposed in the growing literature on existential risks (Bostrom and Ćirković 2008; Avin et al. 2018). The ongoing Covid-19 pandemic (as of May, 2020) provides an excellent example of the latter. The solution Persson and Savulescu propose is compulsory MBE for all. If every human being benefits from being morally enhanced, they argue, the likelihood of ultimate harm is bound to be diminished (e.g., Persson and Savulescu 2008, Persson and Savulescu 2011). Yet in spite of the emergence of voluminous literature on MBE in recent years, its wider societal and political ramifications have not been sufficiently discussed; in particular, this pertains to the key issue of the relationship of MBE to state power. It is a central goal of the present paper to rectify the situation of undue neglect and rekindle this important debate.

In previous work, one of the co-authors of this article has criticized the conception of compulsory MBE on a variety of grounds. A central concern is the issue of freedom, in particular, of freedom of the will. If individuals are coerced into an enhancement of individual morality, free will ceases to be free. Although an abridgement of certain civic freedoms by the state is perfectly standard (e.g., the freedom to drive in excess of the speed limit in a densely populated area), the state cannot impose limitations on what a person chooses to will without encroaching upon their free will. Since the possession of a free will is an essential component of moral existence, its limitation deprives an individual of an essential component of the condition of being human (e.g., Rakić 2014, 2017b).

Even if we concede the thesis that human beings do not have a free will, the belief in a free will is a central aspect of human identity. It follows that in order to preserve their human identity, individuals ought to preserve at least the belief in free will, if not free will itself (see Rakić 2017b). Moreover, it has been proposed that belief in a free will is conducive to moral behavior (e.g., Baumeister et al. 2009, Rigoni et al. 2012a, Rigoni et al. 2012b, Wegner 2003).

In the subsequent discussion, we sketch a non-coercive form of MBE in accordance with the humanistic vision of free will and seek to justify the hypothesis that the best sociopolitical framework for non-coercive MBE is the minimal state. The exposition proceeds as follows. Section 2 gives an overview of the proposed voluntary opt-out version of MBE, before we discuss specific MBE policies in the context of state power in Section 3. The "utopian" character of the endorsed scenario is dealt with in Section 4, while Section 5 highlights concerns about "utopianism" in the context of futures studies. The concluding section (6) summarizes the argument and considers relevant prospects for future work.

We emphasize that the present study is liable to be interpreted as a theoretical framework with normative elements to be investigated and assessed, or as the analysis of certain scenarios. The emphasis is necessary in order to pre-empt an unproductive, caviling polemic about methodology, concerning the boundary of bioethics and futures studies. It is our strong belief that artificial disciplinary boundaries, which arose as a historical and anthropocentric contingency, should be transcended in the interest of serious and pertinent research.

2. Voluntary Opt-out Moral Bioenhancement

In previous work by one of the co-authors it was argued that MBE, instead of being mandatory across the board, can be incentivized by affirmative action policies favoring the morally bioenhanced. Those who voluntarily opt for MBE are to be rewarded for their decisions by gaining financial benefits, consisting of tax reductions, retirement benefits,

housing allowances, schooling allowances for children, as well as various other forms of positive discrimination (e.g., Rakić 2014).

The drawbacks of the incentivization proposal are, firstly, that it seems unlikely that morally unenhanced political decision makers would in fact adopt the morally best policies. Moreover, a state incentivized program of MBE contains certain elements of coercion. In order to share equal opportunities with the morally enhanced, the morally unenhanced come under pressure to undergo MBE. The fact that, by comparison with those unentitled, those who undergo MBE obtain privileged opportunities might make such a program appear dubious from the point of view of equal respect of citizens' rights and freedoms.

Here we argue in favor of a negative process based on the idea of comparative deprivation: those who do not subject themselves to MBE (or more traditional forms of moral enhancement) should be deprived of certain opportunities other citizens enjoy. If this is carried out, MBE would come to be regarded as the default of action, while deviations from the set standard would have as a consequence the revocation of a number of privileges citizens are normally entitled to.

The set-up of entitlement suspension is likely to result in a majority of citizens opting for MBE, or, more precisely, deciding not to refuse MBE. The process amounts to an MBE opt-out scheme. If someone accepts to undergo MBE, by default she will not have to perform additional actions. Conversely, if she decides to refuse MBE, it would be necessary for her to opt out, accepting the consequence of forgoing opportunities enjoyed by others in the normal course of life.

By contrast, the approach canvassed in Rakić (2014) is an opt-in scheme. Those who wished to sustain MBE, would have to opt in. Thereafter, they would obtain certain benefits other citizens not undergoing MBE are not entitled to.

The opt-out conception has an essential advantage shared by all types of voluntary MBE compared with compulsory MBE. Since it not based on compulsory measures, it leaves freedom intact. Consequently, the worries over the abridgement of freedom that pervade the notion of compulsory MBE cannot be raised against the current proposal of voluntary opt-out MBE (VOOMBE).

Since encroaching upon an individual's free will is a form of adversity amounting to deprivation of an essential part of one's humanity, it should be regarded as inflicting a degree of "ultimate harm" on a human being (Rakić 2015). Consequently, for moral enhancement, a foundational justification distinct from the prevention of "ultimate harm" has been proposed, in terms of happiness (Rakić 2017b, 2018). As morality and happiness are mutually dependent and inter-related, happiness may be a good reason for a person to voluntarily decide to morally enhance themselves: the greater the share of morality, the happier an individual will be, and conversely (Isen and Levine 1972; Sheldon and Lyubomirsky 2004; Dunn at al. 2008; Anik et al. 2009; Lalin et al. 2009; Rakić 2018).

However, individuals would have to comprehend as a bare minimum that moral enhancement is conducive to happiness. The comprehension of this fact can be facilitated by moral education. The question becomes how to make individuals understand that they need moral education. The state can offer an advantage of opportunity to those who opt in for moral enhancement (including moral education), but this proposal, as previously mentioned, faces two serious problems. The present paper proposes a solution to these problems, contained in the conception of VOOMBE as implemented in a specific political structure. What this structure entails is the focus of the following sections. The proposal performs a dual function: it is both (i) a methodological approach, or a platform, in bioethics and moral philosophy in general, and (ii) a scenario, or a family of scenarios, to be investigated within futures studies.

It is important to emphasize that the VOOMBE scheme should not be understood as a program in which those who do not wish to opt for MBE (or moral enhancement in general) are being effectively punished. These individuals are not being deprived of their rights, since they have voluntarily decided to use those rights to revoke the privileges MBE entails.

Moral enhancement, including MBE, is to be considered as a standard privilege of every citizen. If one refuses participation, one incurs the consequences of depriving oneself through one's own will of that privilege. The repercussions might be: a disadvantaged position vis-à-vis other citizens when seeking employment (the fact that those who opt out of moral enhancement are apparently heedless makes them morally disadvantaged candidates not only in applying for government jobs, but also in private companies that attempt to employ people who are concerned with their moral betterment); lower or no tax reductions, fewer or no retirement benefits, no housing allowances; various other financial penalties and social disadvantages that policy makers believe are appropriate.

VOOMBE would be part of general moral enhancement programs. Moral enhancement can consist of moral education and of MBE. Moral education should obtain a status similar to the one proposed here for MBE. This means that it would be a matter for schools, companies and government institutions to deliver moral education programs. Those who decide not to enroll in them or prevent their children from enrolling would have to opt out and accept the consequences accruing in the case of refusal of MBE programs. Those citizens have voluntarily used their rights and freedoms to opt out of moral education or MBE and have therefore voluntarily decided to forfeit certain standard opportunities.

Policy makers as a class would be subjected to the same criteria. Candidates for policy making who decline moral enhancement would not be eligible for certain positions or may encounter obstacles, compared with morally enhanced candidates. The forfeiting candidates are in effect using their rights and freedoms to deprive themselves of standard privileges.

Hence, the criteria for candidacy for the policy making class would be the same as for all other citizens. If a policy maker refrains from acting against enrollment in moral education programs or against lending themselves to MBE, the standard criteria apply to them, as to all those who do not opt out of moral enhancement. If they turn down moral enhancement, then it must be as an opt-out; one bears the consequence of forgoing the standard privileges accruing to those who do not opt out. This entails loss of position among other policy makers, or not gaining it in the first place; however it may be, it is an entirely foreseeable consequence of one's decision taken of one's own free will.

But what should be the content of moral enhancement programs? Who would develop such programs? If the state were to be tasked with the undertaking, concerns about totalitarianism would be justified (Rakić and Ćirković 2016). But if the state is ruled out, who else is to develop moral enhancement programs?

We argue that it should be competent ethicists. Moral experts possessing high levels of moral knowledge have to be selected, or at least accepted, by the citizens. But not all citizens have the same moral values. Hence, a system of voluntary associations of ethicists could emerge, in the way analogous to voluntary guild associations, or even the contemporary Basel Accords voluntarily self-regulating commercial banking. Since there are many reasons to believe that complex ethical issues are increasingly likely to play an important role in the future, as transformative technologies momentously gain ground, it is an urgent task to rethink the forms of the past and create new forms of voluntary associations, to earn the respect and confidence of future citizens, whose life will be impacted by transformative technologies to an unprecedented degree (Hughes 2004).

The observation of moral value pluralism is an implicit argument favoring a minimal state as the appropriate framework for VOOMBE. Clusters of people with the same or similar moral values should form associations to help members decide for themselves

how they will live. Those who opt out of MBE can form an association or a community within the state that could be governed by values that are opposed to MBE. On pain of totalitarianism, the state should not impose its will on the members of freely formed associations unaligned with the prevailing ethos of MBE. The role of the state should be confined to protection (e.g., police, judiciary, army¹), a role that can only be performed by a dominant protection agency. Correspondingly, the rights of the opponents of MBE or moral enhancement in general are to be fully safeguarded².

Those who favor moral enhancement programs might have different views on the entailments of moral enhancement. Similarly, individuals with similar values can form associations. Different associations would promote different moral education programs depending on the moral values espoused by their members, even if they agree on the cardinal principle of MBE. Thus, some might accept moral education but not MBE, while others would accept MBE as well (the reverse is also possible, although unlikely to attract a significant number of endorsements).

We argue that that the proposed conception of VOOMBE neither coerces nor nudges citizens away from opting out of MBE. Full freedom of association is however a countermeasure against both coercion and nudging. Such freedom makes it possible for those who determine to opt out of MBE programs to form associations. The opportunity is presented not only to opt out as individuals, but also to associate with similarly minded individuals. Thus, citizens of a minimal state are spared both state coercion and state nudging.

4. Moral Bioenhancement and a Realistic Utopia

The proposal advocated here might seem "utopian" in the vulgar sense. In the common understanding, it refers to a state that is attainable in the minds of political philosophers, but not in reality. That such a utopia is unrealistic in the present sociopolitical conditions is a charge we readily accept. Yet what is deemed unrealistic in one set of circumstances need not remain unrealistic if the context changes. If a utopian construct is unrealistic owing to moral shortcomings, moral enhancement itself might make it realistic. A state that is unattainable as things stand, may become a realistic possibility for a morally enhanced collectivity. Hence, morally enhanced humans may not fall far behind in the attainment of a utopia in the vulgar sense.

But "utopia" in a specialized sense is also acceptable for our proposal.³ What does the more sophisticated concept of utopia entail in political philosophy? First, it could mean that the state imposes its utopian values on all citizens. Second, it could mean the state withdraws itself entirely, even as the one actor with a monopoly on the protection of its citizenry. Third, it could mean that citizens can form associations on the basis of the similarity of values they believe in, limiting the role of the state to protection.

The third type of utopia is the proper place for VOOMBE. The first type would be most appropriate for compulsory moral enhancement, including compulsory MBE. The state imposes its utopian ideals, including the ideal of moral enhancement. The second type of utopia is an ultra-minimal state. It would be a proper place for voluntary opt-in moral enhancement that is not being incentivized by the state. All citizens could opt in, but they would not obtain any advantage of opportunity by opting in. Voluntary opt-in moral enhancement can also be incentivized by affirmative action policies favoring the morally enhanced citizens. As previously pointed out, that was the idea animating earlier

¹ Foreign relations policies are also to be performed by states. If we understand protection in a broad sense, foreign relations policies can also be subsumed under protection.

² For reflections on a minimal state this paper partially builds on, see Nozick (1974).

³ Further in the text we will refer only to utopia and utopian in a non-colloquial sense.

work by one of the authors (e.g., Rakić 2014). This idea, however, cannot be subsumed under any of the three possible types of utopia. It is therefore not utopia, although it can exist as the dominant policy in a specific association in a minimal state.

VOOMBE in utopia does not have the noted downsides of affirmative action policies favoring the morally enhanced. First, in utopia there is no special worry that morally unenhanced policy makers are unlikely to adopt morally wise policies. Those who are morally wise will develop or implement their policies in associations that accept moral enhancement. Moreover, if moral enhancement is the standard in a state, it is likely that such a state will have more morally enhanced policy makers. It follows that the most important step is the very formation of a minimal state resembling the characterized utopia. After its formation, the issue of morally unenhanced policy makers adopting morally unwise policies ceases to be relevant. Second, VOOMBE in utopia has no elements of coercion. The citizens who accept moral enhancement as a standard should simply refrain from acting. Those who do not wish to opt for moral enhancement would have to opt out as a positive action. They would have to decide to be deprived of the standard privileges citizens normally have. In utopia they should be able not only to leave an association, but to form with like-minded individuals an association that is opposed to moral enhancement. Equally, in such a state others should be able to form an association in which those who accept moral enhancement are being rewarded by being granted an advantage of opportunity. There is nothing coercive in that, since citizens' equal rights and freedoms are fully respected.

The third type of utopia is yet to be realized. There is no evidence of a historical minimal state in which citizens could decide, in an entirely free way, with whom they would form an association. But communities that are partially independent of the state have existed historically, including at the present time. Fully free association has never been achieved, but once established, partly free associations often function well.

Examples include various primeval tribal societies; in earlier periods of their history, Norsemen, Montenegrins, Albanians, Eskimos, Bedouins, as well as various other ethnic or religious communities. The Amish community in Pennsylvania is a present day manifestation of the phenomenon. Other examples may be easily identified, since such communities are far from being exceptional in human history.

In Montenegro, family clans were united in tribes that functioned independently of an overarching national state until the mid-19th century. Moreover, they functioned quite well. Elaborate schemes of adjudication or mediation allowed clan disputes to be resolved at the level of tribes, in the absence of a state playing the necessary roles. The self-sufficient Montenegrin tribes succeeded in avoiding subjection to Ottoman rule without forming a state. All disputes were solved at the communal or tribal level, including complicated cases of blood feuding.4

The Montenegrin example is presumably not alien to most other tribal societies. Although they were not formed on the basis of utopian ideals, some did largely function in line with such ideals. They were not formed on the basis of the third type of utopia, primarily because the element of voluntary association was largely missing (although not entirely absent in Montenegro⁵). Hence, they lacked the essential moral quality of individuals freely deciding how to associate. The point of our reference to tribal societies is not how they were formed (whether voluntarily or not), but that it was possible for them to function in a satisfactory way. In brief, the third type of utopia represents an association that can function properly, as evidenced by certain tribal societies, providing empirical evidence for the hypothesis. We conclude that the functioning of the third and preferred type of utopia is realistic, from the perspective of existing empirical evidence.

⁴ See Boehm (1984).

⁵ For example, clans could leave the tribe they belonged to if it became too dangerous for its members because of blood feuding, or because they perceived Ottoman rule as preferable for economic or safety reasons (Boehm 1984).

5. Why Not "Utopia Now"; the Rationale and Effects of VOOMBE in a Future Utopia

Does our argument imply that VOOMBE is possible only in a minimal state? It does, provided that the freedom of association is to be safeguarded. If the number of citizens who wish to opt out of moral enhancement is sufficiently large, their rights can only be fully accommodated in a minimal state.

Yet this feature is not unique to any specific form of association. The rights of various minorities can best be safeguarded in a minimal state. There are objections and drawbacks in the construction of a minimal state. It is beyond the scope of the present paper to investigate these. What is relevant here is that the reason why we endorse a minimal state in a world in which effective MBE becomes realistic, though not necessarily the world at present, is that effective MBE can change human lives profoundly. This change ought to be accompanied by profound changes in the structures responsible for policy making.

If effective MBE can bring about levels of empathy resulting in interpersonal bonds not significantly different from moral bonds to the self, the entire structure of social and human relations is bound to change profoundly. Such MBE programs will have consequences that no existing policy is capable of producing. Although proponents of radical wealth redistribution prefer associations not endorsed by those who prefer to concentrate wealth, while religious communities prefer communities not endorsed by atheists, these disparities and conflicts would fall far short of the differences in outlook intervening between morally bioenhanced and non-bioenhanced individuals. The morally effectively or radically enhanced individuals are to be expected to behave so altruistically that their associations would come close to approximating the "Golden Rule". Needless to say, this doesn't even remotely approximate the behavior of actual people. Once the opportunity for boundless altruism is created, the opportunity for forming associations not attracting non-enhanced individuals ought to be granted as well. This can only be realized in a minimal state, that is, in the third, preferred type of utopia.

Note that our model does not use MBE in order to smuggle in the minimal state. On the contrary, it grants support for a minimal state not extending to issues other than MBE, such as opposition to wealth redistribution. The model does not take a stance on complex issues beyond its narrow focus on MBE. The argument is limited to observing that the best institutional framework for implementing a system of opportunity for MBE is a minimal state. (One is free to speculate that moral enhancement, especially if aided by cognitive enhancement, would facilitate the resolution of difficult problems of social organization, which have vexed thinkers and policy makers since time immemorial.)

Will the proponents of compulsory moral enhancement be satisfied with the minimal state? They should be. If the justification for state mandated MBE is the lowering of the likelihood of ultimate harm, and not a preference for a comprehensive or even authoritarian state, the argument is met by a minimal state or utopia – provided that the minimal utopian state lowers the likelihood of ultimate harm to a comparable degree, relative to compulsory MBE in a non-minimal state.

VOOMBE in utopia is likely to lower the likelihood of ultimate harm significantly. If a sufficiently large number of citizens who are against MBE do not opt out, or if they don't form associations after having opted out, or if these associations do not wield significant clout via membership or influence, it is to be expected that the prevailing ethos would be vastly more moral than it currently is—provided that MBE is effective. Consequently, the likelihood of ultimate harm would be significantly diminished.

Additionally, moral education in utopia would raise the awareness of many with respect to the need for moral enhancement. The justification may be given in terms of the lessening of the likelihood of ultimate harm and the expectation that a morally enhanced population will be happier compared to a morally unenhanced one, owing to the mutually supportive interdependence between morality and happiness [e.g., Rakić 2016]. Hence,

MBE in utopia can be supported by a moral education that appropriately addresses ultimate harm prevention and happiness augmentation.

It is important to note that the utopia we discuss here is libertarian, but that it does not *prima facie* reject or support egalitarian ideology (e.g., see Baldelli 1971). Libertarian socialism is compatible with the proposed type of utopia. Libertarian socialism can take the form of anarcho-socialism, stateless socialism, and socialist libertarianism; its proponents have been anti-authoritarian, anti-statist and libertarian political philosophers within the socialist movement, who reject the conception of socialism in which the state retains centralized control of the economy. In short, they are libertarians, but also egalitarians. As they support a minimal state, the egalitarianism they support has to be achieved by means other than state redistribution of wealth (cf. Ostrowski 2014).

It is beyond the scope of this article to analyze whether this is possible; whether egalitarianism is compatible to any significant extent with socialism; or whether liberal socialism is a contradiction in terms. Our point is that the dilemmas of private property, redistribution of wealth, types of taxation are fully beyond the scope of MBE and utopia, and the minimal state as the best institutional framework for MBE. Hence, utopians, minarchists, and even anarchists of various stripes, both on the right and left of the political spectrum can accept our argument without having to renounce their ideological or political stance. Conversely, one is free to reject any optimality argument and insist that there are other, preempting reasons to implement MBE in a suboptimal social and political environment. It is important to emphasize, though, that those other reasons could no longer be of a moral nature and would have to be grounded differently.

6. The Argument in Brief

It has been argued in this paper that MBE and other types of moral enhancement can best be achieved across society if those who don't wish to undergo them have the possibility of opting out. The consequences of opting out include being deprived of a number of standard privileges possessed by citizens, in the spheres of employment, taxes, retirement, schooling, housing. This can best be achieved in a minimal state, whose role is limited to protection.

We explained why such a state is aptly described as a utopia. Its citizens are fully free to form associations in which they live by rules that differ from those that apply in other associations. The state is an overarching association in which MBE is the standard. Such a setup entails that those citizens who do not wish to undergo moral enhancement or MBE can form associations in which non-standard rules apply, where moral enhancement is concerned.

The opt-out scheme is a type of voluntary moral enhancement which avoids the potential pitfalls of the opt-in scheme, as discussed above. That opt-in scheme is also a type of voluntary moral enhancement but differs from the opt-out version, in that citizens who wish to opt in acquire an "advantage of opportunity" in spheres that largely overlap with those already mentioned. The pitfalls of the opt-in scheme are that at best it nudges, or else coerces, the citizenry to opt in. Additionally, morally unenhanced policy makers are unlikely to adopt the morally wisest policies.

Both pitfalls cease to exist in relation to the opt-out scheme as implemented in a minimal state. As the citizens of such a state are fully free to form associations, they can form associations of individuals who refuse moral enhancement. In these freely formed associations, the morally unenhanced choose to live by rules different from those which govern the lives of the morally enhanced citizens. In this context, there ought to be no coercion or nudging.

The same system of rules applies to policy makers. Morally enhanced and unenhanced policy makers would each conduct different policies in their respective associations. Hence, it ceases to be relevant that morally unenhanced policy makers are not among the morally wisest, as they function in associations in which their lack of moral

merit is not a significant factor. The morally enhanced, on the other hand, would be governed by morally enhanced policy makers.

An essential initial step in the effort to effectively promote moral enhancement is the formation of a minimal state in which moral enhancement is the standard. In such a state, VOOMBE has a proper place. It offers the scope for the theory proposed here to be implemented. A morally educated population would be inclined to favor it. Therefore, the crucial first step is the moral education of citizens who would consequently favor enlightened policies such as VOOMBE. The present paper is intended to offer a tentative direction towards this first step – and to promote a much wider discussion of the topic. In view of the looming threats of global catastrophic risks which might bring about ultimate harm, this is not a luxury, but an urgent necessity.

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