Author’s response to reviews

Title: Limits to human enhancement: nature, disease, therapy or betterment?

Authors:

Bjørn Hofmann (b.m.hofmann@medisin.uio.no)

Version: 1 Date: 20 May 2017

Author’s response to reviews:

Limits to human enhancement Nature, disease, therapy or betterment? METH-D-17-00030

Dear Editor,

I am most thankful for the valuable comments and the wise suggestions, and for the opportunity to improve the manuscript. As you will see from the detailed responses below, the manuscript has been revised in accordance with the comments and suggestions.

I have also attacked a version of the manuscript where the changes are tracked in a different color (Track Changes in Word). The response letter is also attached in a separate file with responses in a different color to ease reading.

Reviewer 1

The author offers a solid review of the broad state of the enhancement debate and gives focus to an area thereof which has probably had insufficient specific attention. Much existing literature has discussed limits as an element of a case for something else rather than in the explicit fashion of this article. Two works that are not referred to but which may be of interest to the author if they are not already aware are Nicholas Agar's Truly Human Enhancement: A Philosophical Defence of Limits, and Russel Blackford's Humanity Enhanced. These discuss at some length the ideas particularly around naturalness that are discussed by the present author, but the article is valuable in that it much more concisely delivers a comprehensive summation of the debate.

RESPONSE: I am most thankful for this comment and for pointing to the valuable works of Agar and Blackford, which are important contributions that are now referred to in the text.
I recommend the paper for publication with some slight caveats the author may wish to consider.

1) It is not entirely clear what the (admittedly brief) discussion of hybrid conceptions of disease adds to the section it closes.

RESPONSE: I have tried to clarify this in the revision: “Hybrid conceptions of disease see disease as having both naturalistic and normativistic elements. As such they could provide a combination of naturalistic objections and more normative reasons to limit enhancement. However, normativistic elements, such as “harmful”,[76, 77] does not provide powerful limit-setting measures. It can definitely be harmful for a person not to have a high intelligence if the person lives in a context where intelligence is (the only thing) meriting. Moreover, the naturalistic element of hybrid conceptions of disease only bites if you subscribe to a biologic axiology.” I am willing to delete this section, if you still think it does not add anything (beyond completing the picture).

2) A number of points are raised all too briefly; including the idea of changing value systems and the propensity of enhancement to self-limit, and the ultimate suggestion of the piece which is to say the case for limits based on proving the betterment attained by an enhancement. This core thesis could use some expansion as while the case is presented clearly the proposed solution is given relatively short shrift. I cannot help but feel that it could be made more strongly if given a fuller discussion along the lines of that provided for why existing debates over setting limits are fruitless. The other promoted conclusion, that it may not be necessary to set the limits at all, is given still less attention despite being an apparently valid and interesting point. This is not to say that these arguments are not made well, quite the opposite. However, they do give the slight impression of being an afterthought considering the depth and scope of review given to the traditional sources of limit. It may suffice to introduce the suggested solutions at the opening of the paper, and thus contextualise the lengthy examination that forms much of the body. I acknowledge however that this may be a limitation of the style of article.

RESPONSE: This is a very good and important point. I have added a passage at the end of the Background section: “At the end of the article, I will return to this premise. Although the traditional approaches to set limits to enhancement may not be convincing, they may not have to do such heavy work. The limits to enhancement may be found in the conception of enhancement itself. Investigating the weakness of the arguments from naturalness, the therapy-enhancement distinction, and the concept of disease, may provide assets for exploring the self-limiting potential of human enhancement.” Furthermore, this is explicated in the objections section: “By learning from the arguments about naturalness, the therapy-enhancement distinction, and disease,
we should demand the same clarity and precision of the concept of enhancement as its proponents require from the concepts of nature, therapy, and disease in order to have any limiting function. If it is not clearer what is meant by enhancement than what is meant by nature, therapy, or disease, no more should we pursue the former than it can be limited by the latter.”

3) on page 8, it seems likely that the author means 'dietary supplement[s]'
RESPONSE: Thank you very much. This has been changed.

4) On page 12, long-lividness, in reference to longevity, I believe should read 'long-liv[e]dness'
RESPONSE: This has been changed.

5) Line 6 of page 13, 'by far clear' would perhaps make more sense in context as [far from clear].
RESPONSE: Excellent. This has been changed. Thanks.

However these are all suggestions and it is my opinion that the paper is a worthwhile summation of the debate around limits, affording it succinct explicit attention that is perhaps lacking in other works. The suggestions for a solution to this stalemate are interesting and I would be keen to read an expansion of these ideas.

Reviewer 2

Review Report This has been an interesting paper to read, it is especially strong descriptively and makes several strong points related to the current debate. I hope the below comments will be helpful.
RESPONSE: I am most thankful for the comments and suggestions, which have been very helpful. They have contributed to improving the manuscript.

p.2

Line 51: Minor comment: perhaps rethink the use of word 'charitable.'

RESPONSE: Good point. I have altered to “treasurable” although “cherishable” was also considered.

45: Minor comment: 'of course' - this is not self-evident

RESPONSE: I agree. This has been removed.

44: Minor comment: I'd suggest to reference opportunity costs in relation to enhancement

RESPONSE: I am not quite sure that I do understand this comment. Please give advice if important.

59: Minor comment: if this is widely debated, perhaps more references to important texts in order

RESPONSE: All the references in the article could be included here. I have added some more now. The comment is most appreciated.

P. 3,

1: There is no need to assume that enhancement needs to be limited for some reason. It does not add to the argument in any way.

RESPONSE: In a manner I agree. However, for the completeness of the argument, and for those readers that do not agree with us, I think this can be valuable. This has been shortened and some parts removed, as suggested below.
10: The reference to Harmonia Mundi is interesting and does not occur often in mainstream debate on enhancement

RESPONSE: Thank you.

11: It would be good to demonstrate more fully how 'nature has been normative epistemically, aesthetically, and morally.' The example works, but the relation between those three dimensions are of interest.

RESPONSE: The following sentence has been added: “The functional balance of nature has been the norm of knowledge, of evolutionary beauty, and of what should be restored or obtained. Our knowledge of how to heal a broken leg, how to restore its outlook, and the impetus to do so is drawn from the norm of a well-functioning leg of a being in its natural habitat.” I hope this is not deflecting the reader.

22-24: This is a questionable claim that merits at least a reference; and I don't think that it is true that people tend to think about medicine in this way, although there is room for reasonable disagreement here. I'd suggest to qualify the statement to refer to 'a common understanding of medicine,' or 'some thinking that…' Additionally, there might be some threading on two meanings of 'natural' there (natural as referring to nature and medicine as natural science).

RESPONSE: Good point. This has been altered to “Accordingly, a common understanding of medicine tends to think that it works according to the norms of nature, as it restores a given harmony.”

26-27 Minor comment: prima facie?

RESPONSE: reasonable has been changed to prima facie.

30-32: Enhancing humans or enhancing human nature? There is an important conceptual difference.

Section Arguments from naturalness. Perhaps the concluding sentence would serve its purpose better at the start of the section, to manage expectations as to the aim of the section

RESPONSE: Good point. The sentence now reads: “One argument why society should not permanently enhance humans is that this would alter our common understanding of human excellence and flourishing in ways that would undermine our social practices.”
1-2 & 6-8 It would be good to know more about the author's view about consequences of this multiplicity of conceptions of nature for the enhancement debate in relation to limits on human enhancement. Is Bess' argument convincing?

RESPONSE: I assess Bess’ argument later in the paper. It does not seem suitable to address this in this descriptive part of the manuscript. Please correct me, if I am wrong.

It is a little unclear to me what is the relation between arguments in the context of HE relating to nature in general and changing human nature specifically. Perhaps those links and distinctions could be drawn out more explicitly.

RESPONSE: Good point. I have added a recapitulation at the end of this section: “Moreover, the arguments are not always clear as to whether they address altering humans, human nature, or nature in general. Neither are the counterarguments. Nonetheless, the core issue is that nature, of which human beings are an integrated part, provides some standard for human being, in terms of abilities, activities, aspirations, and norms for treatment and restoration.”

Limits to HE in nature: this section could be more accurately called 'limitations/future directions'

RESPONSE: Good point. The heading now reads: “Limits to the HE in nature debate and future directions”

34-55 I think that the assessment here is accurate and I appreciate this section. Some more (brief) details of how those conceptions could play out in the context of HE would be enlightening, although not strictly necessary for this paper's argument.

RESPONSE: I agree. It would be a nice opportunity to elaborate more on these alternatives. However, I am afraid this would distract the reader. Moreover, a coarse elaboration of the issues would not pay due respect to these alternative perspectives.

50-51 There is little argument to support the conclusion that there is not knock-down argument: while the article does a very good job of reviewing various concepts/arguments/counterarguments and categorisations, it does not provide (so far) the evaluation needed to support the conclusion that none of those arguments are strong arguments for setting limits on HE.
RESPONSE: I very much like this comment, as I am challenged by it. I do think that the counter-arguments present relevant objections to the limit-setting arguments from nature. One may of course dismiss such counterarguments and support some of the nature-based arguments (for limits to HE). However, then I would enter the naturalness-debate, which I only want to review. One way to handle the issue would to rephrase “knock-down argument,” but then the main argument of the article would lose momentum. I am open to suggestions here would very much appreciate advice on this matter.

p.6

3-4 Minor comment: I am not clear what 'needs differentiation' means in this context

RESPONSE: this has been altered to “It is the latter where limits to HE have been most heatedly debated.”

11-12 Minor comment: perhaps: 'a prima facie argument in favour of limiting enhancement?'

RESPONSE: Good suggestion. The sentence now reads: “Accordingly, enhancement is to go beyond this warranted basic provision of help [43], and the motives are entirely different [44], providing a prima facie argument in favor of limiting enhancement”

44-45 Minor comment: therapy-enhancement-distinction: is this a hyphen typo?

RESPONSE: These have been removed.

36-40 Again, unfortunately I am not sure where this conclusion came from. The previous two sections are well organised and comprehensive descriptions of arguments and counter-arguments, but provide little evaluation of the arguments put forward. As a result, the conclusion is not justified on the basis of what is in the paper as it stands.

RESPONSE: I agree, but the aim is only to present the arguments and counter-arguments without go too deep into the assessment of them (and enter the details of the specific debates). Advice how to address this comment would be much appreciated.

58-59 Such a strong normative/motivational standpoint can be attacked by arguing that even if the distinction between disease and enhancement can be established clearly, it does not have
such a normative force (e.g. proposed by Harris); this is in addition to Savulescu-style arguments pointing out the vagueness of the distinction itself. It might be good to clarify the difference between those two arguments. This could provide a further link to the issues addressed in latter sections.

RESPONSE: Good point. The following has been added: “Moreover, it can be argued (as John Harris does) that even if the distinction between disease and enhancement can be established clearly, it does not have a normative force for enhancement. Enhancement is pursuit on its own merits.”

p.7 Strong & well-informed discussion

RESPONSE: Thank you.

p.8

31-35 I suggest to rewrite and add: it is not clear why this is so. One needs a normative argument to add to the naturalistic concept of disease, otherwise it just will not fly as an ethical - therefore: action guiding - argument. The mention of humanistic axiology needs tying up to the argument. The counterargument relating to pragmatic considerations leaves one hanging.

RESPONSE: Good point. This now reads: “Altogether the (naturalistic) conception of disease provides more assets for limiting HE than the naturalness-argument and the therapy-enhancement distinction, especially if you are based in a biological axiology. However, in an anthropocentric axiology, one would argue that we need a morally normative element in order to be action guiding. Biology is not sufficient. Moreover, it can be argued (pragmatically) that so far the concept of disease has not been able to restrict health care activities. Health care goals go way beyond handling disease already, and thus, will not be suitable to limit human enhancement.”

p.9

31 Perhaps ‘an apparent tendency’ (?) (the author mentions that Earp & all address this, other proponents also of radical enhancements seems to regularly make similar qualifications). The debate has moved on from the 90s ‘better, faster’ and one would be hard pressed to find an enhancement proponent that does not qualify their claims. There indeed still might be a too strong emphasis on the quantitative enhancement of traits, but if there is a bias, it is not clear-cut.

RESPONSE: I agree. The suggested amendment has been included.
55-57 I think the potential conflict between individual wellbeing and society's interest at large is a point well made, but this does not undermine the definition of enhancement proposed by Savulescu and others. This might simply mean that not all enhancements are good things all things considered from a wider consequentialist standpoint. This needs clarifying.

RESPONSE: Please apologize, but it is not clear to me what is the point here.

57-59 I think it is more accurate to say that there THEN remains additional work to show that something indeed is an enhancement on Savulescu's definition. There can be a reasonable disagreement here, but it does not undermine the usefulness of this definition of enhancement. Other criticisms can be raised against this definition of enhancement, but as it stands the conclusion on the next page is not supported. I think the author hits the nail on the head on the next page (lines 12-14), but the conclusion of this sections needs re-thinking.

RESPONSE: I completely agree, and am most thankful for this comment. I have altered the sentence, which now reads: “Hence, more work is needed to show that something is an enhancement, and explaining enhancement in terms of augmentation (or diminution) appears not to do the trick.”

p. 10

14-16: It might be a reasonable position but needs a bit more support - either elaboration, demonstration or signposting. For example, one may say that enhancement may well be defined in relation to increased wellbeing, but this is so wide as not to be useful. As it is, the paper asserts but gives me no stated reason to agree.

RESPONSE: Again, this is an important point. This section now reads: “Accordingly, the argument for HE without a more elaborate conception of betterment (than individual wellbeing) is unsound, as better is different from more and individual wellbeing is complexly entangled in social involvedness. Defining enhancement in terms of increased individual wellbeing is hardly helpful, as wellbeing is as broad and contestable concept as health. The argument from change or argumentum ad novitatem does not work either. Even if we need to change, it is not obvious that HE is for the good.”

22-31. Nicely done. Minor comment: 22-23 this sentence should go I think; it is not a reason in itself, and reads somewhat rhetorical.

RESPONSE: Exactly which sentence is meant here.
32-42 Works well
RESPONSE: Thank you.

46-52 Good point
RESPONSE: Thanks

55-61: Is the challenge practical or normative then? Is it an evaluation problem?
RESPONSE: Good point. It is addressed in the discussion: *

p. 11

1-6. There seems to be the sustained conflation here - there is a difference between enhancement as better for individual and making world a better place. This needs to be tidied up.

RESPONSE: This is a very important point. This section now reads: “In this article I have argued that the traditional resources for setting limits to HE, such as naturalness therapy, and disease, are not convincing. However, I have found that the lack of specification of betterment inherent in the conception of HE itself provides means to set limits. Human enhancements that specify what becomes better and where adequate evidence that this will happen is provided are good and should be pursued. Others should be limited.”

8-10/13 Minor comment: I'd suggest to remove
RESPONSE: See above comment about removing the premise.

21-28 Minor comment: Would this not belong in the introduction?
RESPONSE: I think it fits better in the discussion, as it would otherwise make the introduction too long. Besides it discusses alternatives to the prevailing approaches, and to further research.

29-32 Minor comment: Repetition, can remove The 'objections' section is rather weak. I'd join some points and add to discussion and distribute others earlier in the paper or remove.
Alternatively, the conclusion needs to be more comprehensive and focused on the main points advanced by this paper.

RESPONSE: Good point. This has been deleted.

General:

Background section (why should there be limits to enhancement) could be improved by removing unnecessary discussion of the premise that enhancement needs to be limited. This risks putting a cart before the horse and author's argument works well also without it.

RESPONSE: This has been removed. The presentation of the premise has been shortened.

I'd suggest to clarify the section-question relation. The 4 questions at the start provide a good roadmap to the paper but it is not immediately clear how all of those map onto the sections in the paper The paper could be improved by more clear drawing out the reasons for authors' evaluative claims (see also comments) Generally interesting, detailed and clearly written, but at times the style could do with one more round of proof-reading.

RESPONSE: The headings have been brought in the same order as the initial questions.