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A Subjectivist Solution to the Problem of Harm in Genetic Enhancement

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Biography

Sruthi Rothenfluch is a visiting instructor of philosophy at the University of Portland in Oregon. She completed her doctorate at the University of Nebraska-Lincoln in 2011, working primarily within epistemology. Her current research centers on the ethics of involuntary medical intervention as this applies to pre-natal genetic enhancement and psychiatric treatment. Her previous work within contextualism and virtue epistemology, which addressed differences between expert and lay deliberation and judgment, raised more practical questions about the content of expert claims and whether they ought to be invariably accepted. This led her to examine conditions under which treatments may be permissible or even obligatory in the absence of consent.

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Abstract

Some have recently argued that parents are morally obligated, under certain circumstances, to use pre-natal genetic intervention as a means of enhancement. Despite aiming to benefit the child, such intervention may produce serious and irreparable harm. In these cases, parents seem to have an obligation not to intervene, as such efforts make the child worse off. Julian Savulesu has argued that while harm raises doubts about the acceptability of genetic enhancement, genetic selection remains an obligation. This claim, however, rests on an indefensible privileging of personal over impersonal harm. I propose instead that we reframe the debate as stemming from fundamentally different views about parental obligation. The objection from harm rests on an objectivist conception, according to which obligation is determined by all relevant facts, including unpredictable harm. Proponents of genetic enhancement, however, operate within subjectivist assumptions about obligation, according to which moral requirements are determined by reasons that are epistemically accessible to the relevant agents. I will argue here that because subjectivism offers a more reasonable conception of parental obligation, such unforeseeable harm does not remove a parent's obligation to enhance.

Keywords

Genetic Enhancement, Genetic Selection, Subjectivism, Harm, Procreative Beneficence

I. Introduction

While the ethical status of pre-natal genetic enhancements is far from settled, both supporters and opponents of such technology view the child's interests and safety as central to the debate. Opponents often cite harm to the child in terms of loss of autonomy and distortion of the parent-child relationship as reasons against enhancement (Sandel 2007) while Julian Savulescu and other proponents emphasize ways in which enhancement will improve the quality of a child's life. Rather than unrestricted approval of all such interventions, the latter generally acknowledge the permissibility of enhancement under certain specified conditions, in particular, those cases in which we have strong evidence that more good will come about as a result of enhancement than without it.¹ These goods have been fleshed out in positive and negative ways, citing both the best interests of the recipient, and the absence of conflicting considerations

1. Brock 2009; Buchanan et al 2000; Robertson 2001

such as parents' impaired ability to care for existing children, and harmful impacts on the wider society. Savulescu has argued that under certain conditions, prenatal genetic interventions are not only permissible, but *required*, on par with providing nutrition, education and shelter.² While this might reek of a move towards eugenics, Savulescu and others, as will be shown below, do not endorse a narrowly defined conception of a good life, but instead remain neutral on this question. Despite its merits, the position appears susceptible to a certain kind of charge: suppose that as a result genetic enhancement, you produce a child who is predisposed to asthma, or worse, cancer. In such cases, it appears that the child's life turned out worse due to intervention. Savulescu (2001, 2006) appeals to a *person-affecting* sense of harm to argue that while genetic enhancement may harm the child, selection will not. This is because *selecting* an embryo with genes predisposed to serious illness does not make that child any worse. If parents had selected an embryo without that genetic structure, it would have been a different child. Therefore, since the child is not worse than she would have been, no harm has been done to that child. Such a view of harm is overly restrictive in that it precludes, (or, at best, fails to appreciate the severity of) genuine instances of harm. Instead of denying that intervention causes harm, I propose that the best way to understand and respond to the objection is to expose its objectivist underpinnings. Harm that was not and could not have been reasonably predicted can count against an act only if all relevant facts determine its moral status. Because parental obligations are best determined subjectively, that is, according to facts parents can access, the obligation to enhance can be sustained in such cases.

I begin in the second section by presenting Savulescu's extensive defense of the moral obligation to enhance, supporting and supplementing his view at times with others' whose positions strongly resemble his own. As I largely agree with Savulescu, I will go some way towards clarifying and defending his position. Next, I will present a case that is representative of the worry described above and explain Savulescu's response that selection is immune from this objection. I will, however, contend that his strategy fails to adequately address the problem. In the final section, I will present my own proposal for re-assessing the debate as one instance of the larger subjectivist-objectivist divide within metaethics. I will argue that because parental obligations are determined subjectively, the objection from harm cannot displace our obligation to use ethical genetic enhancements. I will end by addressing some apparently problematic cases for my view.

2. Savulescu and Kahane 2009; Savulescu 2010, 2009, 2001; Harris 2010

II. Principle of Procreative Beneficence (PB)

Savulescu and Kahane (2009) endorse what they call the 'Principle of Procreative Beneficence' (PB), one version of which is given here:

If couples (or single reproducers) have decided to have a child, and selection is possible, then they have a significant moral reason to select the child, of the possible children they could have, whose life can be expected, in light of the relevant available information, to go best or at least not worse than any of the others. (274)³

The basic principle here is not difficult to understand or support, insofar as it encourages parents to aim at having the best child possible, something that parents routinely do outside of genetic intervention. Savulescu (2009b) has argued that because genetic enhancements are relevantly similar to environmental enhancements in their effects and expectations, the two are morally equivalent. I will not rehearse his arguments here because my chief concern is whether an obligation to enhance can be sustained against the objection from harm. There are some aspects, however, that call for clarification before we can proceed. First, we might ask what constitutes the best life. Rather than favoring a particular conception of a good life, Savulescu argues that certain traits will promote one's ability to achieve wellbeing, and others will detract from this ability, across various reasonable conceptions of a good life, including desire satisfaction, objective list, and hedonistic. Chronic pain, for example, would undeniably make life worse, while an increase in memory would enhance nearly any plan of life; the ability to control violent outbursts would enable individuals to maintain meaningful social relationships and retain their dignity and independence; intelligence would promote wellbeing whether it is through being able to imagine various pleasures, or choosing the most effective means to satisfy one's ends (2001, 420). According to Savulescu, parents are obligated to select children whose traits can be expected to best achieve wellbeing according to such theories, where selection is possible.

Savulescu further argues that enhancements that close off reasonable goods and opportunities are *not* acceptable. It is important to parse this carefully because at first glance, it seems obvious that parents will prize and pursue certain goods at the expense of others. Some parents might emphasize being prudential and moral agents, thereby encouraging development of virtues necessary for coping with the contingencies of life and treating others with respect and kindness. Such parents might enlist their children in

3. An earlier version of this principle appears in Savulescu (2001).

religious training or participation in community service. Other parents might be invested in developing intellectual capacity and have their children participate in chess clubs or math teams.⁴ How then should we understand this restriction? Proponents of genetic enhancement appeal to Joel Feinberg's (1980) 'rights in trust', which ensure "the child's right to an open future". These rights must be preserved for children even though they lack the capacities to exercise them now.⁵ The idea here is that children have a negative claim against parents that they not intervene in their lives in a way that forecloses on their opportunities in the future. Thus, even though a child cannot now exercise her right of reproduction, parents cannot take measures to deprive her of this possibility. Such prohibitive conditions are echoed in Buchanan et al.:

it would be wrong for parents substantially to close off most opportunities that would otherwise be available to their children in order to impose their own particular conception of a good life or in order to continue their own community that is committed to that conception of a good life.⁶

Larry Herzberg (2007) notes that the obligation to enhance should be constrained by an autonomy-respecting condition that also

prohibits any enhancement that would result in the creation of a person with fewer rationally desirable life-options, or with less of a cognitive ability to choose between them, than would otherwise have been the case. For instance, it prohibits enhancements that would make particular occupations harder for the person with the enhanced trait to choose or pursue, even if it would make other occupations easier. (100)

While parents may encourage certain activities or life styles, they cannot intervene in ways that eliminate the ability to exercise certain rights. For example, rights in trust

4. Such differences are highlighted by Buchanan et al in their discussion of the extent of freedom parents have in raising their children. (2000, 158).

5. Feinberg's original division of rights is made in the legal context, specifically, to determine whether or not the state should prevent parents from foreclosing children's futures in some way, say, whether they can, due to religious conviction or cultural tradition, prevent their children from attending school or receiving blood transfusions. Feinberg's distinction has, however, also proved useful and relevant to the ethical boundaries between parent involvement and a child's autonomy, and has been utilized by a number of authors in the area including but not limited to Dena Davis, Michael Sandel, William Buchanan and Norman Daniels.

6. Buchanan et al. *From Chance to choice*, 170

would prohibit a deaf couple from using genetic therapy or selection to produce a deaf child. While this would create a strong bond within family members and even the deaf community, the act will nevertheless foreclose certain opportunities for the child. In her (2010), Davis explains that the child “will have only very limited options to move outside of that culture.... [confining] her forever to a narrow group of people and a limited choice of careers ” (82). More needs to be said about the type of rights involved and what, specifically, counts as infringement, but the principle’s prohibitive message is sufficiently clear for our purpose.

A second point of clarification concerns Savulescu’s use of ‘significant moral reason’, which is to be read as a qualified obligation. More precisely, “when the obligation to have such a child is not overridden by sufficiently strong opposing moral reasons, it will be true that parents ought, all things considered, to select the most advantaged child” (2009, 278). We can acquire a more precise idea of what counts as competing normative reasons, from Savulescu’s (2009) criteria for an *ethical* enhancement. An ethical enhancement is not only in the child’s best interest in that it is expected to be reasonably safe and beneficial, but also cannot unreasonably restrict the range of possible lives open to her, directly harm others through excessive costs, or reinforce and increase unjust inequality and discrimination.⁷ These clarifications allow us to define Savulescu’s position more perspicuously: Parents have an all-things-considered obligation to use ethical enhancements.

III. The Objection from Harm and Savulescu’s Response

As shown above, proponents of pre-natal genetic enhancements cautiously limit their approval to ethical enhancements: those that can be expected to benefit the child according to different conceptions of a good life without causing harm to the child, family or wider society. Such constraints address a number of concerns that have previously been raised against the use of genetic technology. A pluralistic understanding of a good life, along with deliberate attention to the child’s future interests respond to concerns about the return of 20th century eugenics and threats to the child’s autonomy. However, these conditions do not speak to a different sort of worry. Despite careful efforts to secure the child’s wellbeing, enhancements may misfire by seriously harming the child. This is especially troubling for non-disease cases, because such children might have lived entirely normal, albeit unenhanced, lives. Suppose scientists discover a correlation between

7. For some discussion of possible exceptions, see Savulescu 2010.

enzyme E and greater attention span, which by and large, has been identified as a desirable cognitive skill. Geneticists have isolated the gene responsible for the production of this enzyme and have discovered a way to introduce the gene to existing embryos. *P* opts to enhance her child in this way, reasoning that this will increase the likelihood of the child's wellbeing without creating significant hardship for others. The enhancement is ethical in Savulescu's terms. Suppose that in so doing, *P* inadvertently removes certain other desirable traits such as spontaneity, or worse, generates a predisposition to cancer. *P* has harmed her child by making her worse off than she otherwise would have been, despite meeting the conditions of an ethical enhancement. Note that this is not akin to cases in which parents have intervened to treat or prevent some catastrophic illness. If *P* had done nothing at all, the child would have a species-normal attention span and been spared a potentially deadly illness. Contra Savulescu and others, it seems that *P* ought not to have used the ethical enhancement.

Savulescu (2001, 2006) defends genetic intervention by distinguishing selection from enhancement. Enhancement involves the alteration of particular genes, through gene therapy (gene insertion into gametes or embryos) or gene surgery, (where undesirable genes are deactivated) (Buchanan et al. 2000). Selection, on the other hand, is carried out through analysis of the embryo via in vitro fertilization or pre-natal testing through chorionic villus sampling, amniocentesis and ultrasound. The difference is that enhancement operates on a given embryo, whereas selection is a screening process that enables parents to select the embryo that contains traits they desire. Suppose that Lisa was selected via in vitro fertilization because she possessed genes correlated with increased attention span. But Lisa also has a genetic predisposition to cancer. According to Savulescu, the parents have not harmed Lisa. If instead the parents had chosen an embryo with a different genetic blueprint (one who both lacked the desirable traits and cancer), then *Lisa* would not have been born. So long as Lisa's life is worth living at all, the parents have not harmed Lisa because they have not made Lisa's life worse than it would have been.⁸ Suppose instead that parents altered Lisa's genetic structure in a way that enabled greater attention span, but in so doing caused Lisa to develop cancer. Here, Savulescu argues that parents harmed Lisa by making her life worse off than it would

8. McMahan (1997) further points out that because Lisa's life is worth living, parents have benefitted the child: "Indeed, if it is bad for a child to be caused to exist with a life that is not worth living, then it seems that by parity of reasoning, it should be good for a child to be caused to exist with a life that is worth living". (12)

have been without the intervention. Since harm-to-the-child is what is at issue, selection appears immune to this objection whereas enhancement does not.

Savulescu adopts what he (following Parfit) calls a *person-affecting* view of harm, according to which a person is harmed by an act if she is made worse off than she would have otherwise been. The person-affecting view of harm is plausible because we tend to think that harm occurs when (i) a particular individual or set of individuals is affected and (ii) when this individual or set of individuals is comparatively worse because of the act.⁹ Parfit (1973, 1984) and subsequent writers have presented cases in which it seems right to say that harm occurs even if a particular individual or set of individuals is not made worse off, generating the *non-identity problem*. In his (1984), Parfit discusses a 14-year old girl who is told that if she waits a few years to have her child, she will give it a better life (358). She decides to ignore this advice and have the child, who has a difficult start, one that is much more difficult than if she had waited a few years. While it seems right for the girl to have waited, we cannot say that her act was worse for *her* child. This is because had she waited, this child would not have existed at all, and because this child's life is worth living, the girl's decision was not worse for this child. The person-affecting view of harm results in the odd conclusion that the mother has not committed harm.¹⁰

The worry is also illustrated in McMahan's (1997) 'first preconception variant':

A couple are considering having a child but suspect that one of them may be the carrier of a genetic defect that causes moderately severe mental retardation or cognitive disability. They therefore seek to be screened for the defect. The physician who performs the screening is negligent, however, and assures the couple that there is no risk when in

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9. Savulescu offers a counter-factual explanation of harm: *A* has been harmed when *A* is made worse off than she would otherwise have been if the act had not been performed. This characterization seems problematic. Suppose that Max stabs Lisa with a knife. I'm inclined to think that Max harmed Lisa even if, given Lisa's circumstances, if Max had not stabbed her, she would have been stabbed by someone else, or suffered a knife accident. While I think that this is a relevant concern, I will not pursue it here because the focus of my argument is not this aspect, but what is identified in (i): the target of harm.
 10. Curiously, Savulescu argues that his own remarks on selection "echoes" and, draws from, Parfit's non-identity problem. I take it that this is because selecting an embryo with better prospects for wellbeing is similar to waiting to have a child with better prospects for wellbeing. However, Savulescu's own view crucially departs from Parfit's in that when an act results in a worse outcome that involves a different person, Savulescu's view cannot acknowledge that this act has produced harm, or at least does not adequately appreciate the severity of the harm.

fact the man is a carrier of the defect. As a result, the couple conceives a child with moderately severe cognitive impairments.

If the physician had screened the couple properly, a single sperm would have been isolated and genetically altered to correct the defect, which would have been combined in vitro with an egg drawn from the womb. This would have resulted in a child without cognitive disability, and, importantly, have been an altogether different child. So long as the child naturally conceived has a life worth living, the negligent physician's act was not worse for *this* child, and therefore, according to the person-affecting principle, the physician has not committed harm.

These cases suggest that a person-affecting conception of harm is insufficient. We need a different conception to accommodate our intuition that the physician and 14-yr-old caused harm. Parfit proposes Q:

If in either of two possible outcomes the same number of people would ever live, it would be worse if those who live are worse off, or have a lower quality of life, than those who would have lived. (360)

McMahan calls this the *Impersonal Comparative Principle*, comparative not because it makes a single individual worse off, but rather because a different course of action would have secured the same goods (same number of lives) without the suffering that resulted from the original act:

The objection to causing the [cognitively impaired] child to exist is that it was possible to cause a different child to exist whose life would have contained at least as much good but less of what is bad—in particular, less overall suffering (1997, 32)

This principle also accounts for the harm committed by the 14-yr-old, as she could have had a child without the suffering experienced by the original child. (It is important to highlight that the view is restricted to same number choices, and therefore does not claim that it is wrong or worse to bring about a child with disabilities when it was not possible for a couple to have a child without disabilities.¹¹) Impersonal harm appears plausible, and subsequently renders selection equally susceptible to the objection from harm.

11. While McMahan endorses the impersonal comparative principle, which he attributes to Parfit, he does not support Parfit's *no difference view* between person-affecting and impersonal harms. Instead, he argues that impersonal harms can only be as strong as, but never greater than, person-affecting harms.

Savulescu (2006) contends that personal harms will always be worse than impersonal harms. Imagine for instance, a child who discovers that her genes have been altered. She might reason that were it not for her parents' intrusion, she would have existed quite differently, thereby resenting her parents and developing an embittered attitude toward life. This stinging realization, however, cannot occur to an individual that has been selected. Where does this leave us? Savulescu argues that selection is *more* defensible against the harm objection, arguing in fact that selection is more immune "regardless of how misguided the parents' genetic choices may turn out to be, provided only that the child has a life worth living" (164).

Note that Savulescu has stopped short of fully addressing the problem of harm, instead arguing that enhancement is more problematic than selection. This is unsatisfying for two reasons. First, the difference in suffering Savulescu cites will be small, or at any rate insignificant, in the type of case presented above, where genetic intervention resulted in serious harm. Suppose that Lisa₁ was a product of selection and Lisa₂ a product of genetic therapy, and both develop cancer. It seems that Lisa₂'s resentment towards her parents will pale in comparison to the physical and emotion toil of fighting cancer, making both their suffering roughly equal. Further, Lisa₂ may not even be aware that her parents' intervention was responsible for her disease, which would also make their suffering comparable. Second and more importantly, Savulescu has failed to explain why parents are obligated to perform ethical enhancements despite causing such suffering.

IV. A Subjectivist Solution

We cannot deny that genetic intervention caused significant harm in both cases. The question now is whether such harm removes a parent's obligation to ethically enhance. The problem is best viewed as an application of a much broader debate in metaethics concerning the nature of obligation. According to objectivists, one's obligation, what one ought to do, is determined by all relevant normative facts. Subjectivists, on the other hand, maintain that one's obligation is determined by normative facts that are in some way epistemically accessible to the agent. Proponents of genetic enhancement support their view on the basis of expected benefits, adopting a thoroughly subjectivist perspective. Consider Savulescu and Kahane's (2009) remarks on decision-making:

When we make decisions, the option we should choose is the one which maximizes expected value. In the case of selection and reproductive decision-making, the outcome of interest should be how well a new person's whole life goes, that is, well-being. PB thus states

that we have reason to select the child who is expected to have the most advantaged life. We cannot know which child will have the best life. (278)

John Harris (2010) writes, “parents would act ethically if they were to attempt to achieve such an [enhancement] for their children”. Here is Buchanan et al. (2000): “It is morally desirable or morally good for parents to use a variety of means, including genetic interventions to attempt to produce the best children possible” (162).¹² Even given our best efforts, children may in fact *not* live a better life as a result of such interventions, as Savulescu and Kahane note:

Those born with the greatest gifts and talents may squander them while those born to great hardship may overcome enormous obstacles to lead to the best of lives. It is not surprising that there are such limits on what prospective parents can reasonably hope to achieve through genetic selection (278)

In contrast, the objection from harm is rooted in the view that one’s obligation is determined by *all* relevant normative facts, including the actual outcome, reflecting objectivism. Because in the cases under consideration the resulting individuals were made worse off, opponents argue that parents are obligated to not intervene.

Whether such harm removes an obligation to ethically enhance, then, will depend on the conception of obligation we favor.¹³ If we reject objectivism, then such harms—facts that could not have been reasonably predicted—cannot count against the obligation to enhance. I want to suggest that we have good reason to adopt subjectivism in the context of parental obligation, if not more widely. It is in this way that obligation can

12. Buchanan et al. do not endorse an *obligation* to intervene, but accept that the permissibility of intervention is based on our attempts to produce the best children possible, not that such efforts *do* result in the best children possible.

13. As stated above, this is an application of a meta-ethical debate regarding the nature of moral obligation, specifically (a) whether moral obligations are restricted to reasons an agent possesses and if so, (b) what kind of epistemic constraints are relevant to possession. Much has been said historically and in more recent literature: Graham 2010, Lord forthcoming, 2010 and 2013, Schroeder 2008, 2009. My concern is strictly in its application to genetic enhancements and therefore will have limited bearing on the broader debate. However, such concrete application is helpful in both a theoretical and practical sense. This particular context testifies to the strength of the subjectivist position, and therefore goes some way towards furthering the dialectic. Second, some of the points raised in the larger meta-ethical discussion seem particularly well suited to the situation parents face in making reproductive decisions.

serve as a practical guide in deliberations of what we ought to do. When we have strong evidence that placing children in highly reputed schools will enable them to achieve their goals, we see this as reason for doing so. Because we justifiably believe that vaccinations will protect them from disease, we immunize. Buchanan et al. (2000) point out, that “parents are expected to... keep their children away from drugs, from street crime, from hazardous play.... heed nutritional and dietary concerns” because we have “some claims to know scientifically what is best for children” (157). Parental duties are, in other words, constrained by facts that can shape and direct our moral deliberation, those which are epistemically accessible. The importance of epistemic access to obligation is nicely captured in Errol Lord’s recent defense of subjectivism.

Lord argues that an obligation to ϕ requires possessing the right reasons in favor of ϕ -ing. His argument is based on two premises:

1. S has an obligation to ϕ only if S has the ability to ϕ for the right reasons.
2. S has the ability to ϕ for the right reasons only if S possesses the right reasons. (9)

He argues, first, that an agent has an obligation to ϕ only if she can ϕ for the right reasons, what he calls the *right reasons ability condition*. A right reason is understood in terms of normative facts, or facts that recommend actions. What does it mean to act for the right reasons and why is this ability necessary for obligation? Acting for the right reason requires that the agent’s act be explained and justified by her reason and that she is appropriately sensitive to the relationship between the fact and the act. Suppose that Lou believes that a nearby private school will better prepare her child for college than the public school alternative, and therefore decides to send her daughter there. But Joan decides to send her daughter there because it affords her a certain prestige. Note that the child’s wellbeing both explains and justifies Lou’s act. Joan’s act is explained but not justified by her reason. Further, if it were not the case that private school better prepared her child, Lou would probably not enroll her daughter there, though Joan would. For these reasons, only Lou has acted according to the right reasons. Why is this ability a necessary condition for an obligation? It must be possible for the agent to act according to her obligation in a non-lucky or non-accidental way. If we reject the right reasons ability condition, and instead accept that an agent’s obligation to ϕ does *not* require an ability to ϕ for the right reasons,

there would be cases where you ought to ϕ even though the reasons that make this true cannot get any legitimate grip on you—i.e., they cannot move you in a non-accidental way. In these cases you will *have* to get lucky in order to do what you ought. (11)

If one has an obligation to ϕ , but it is *not* the case that one can ϕ for the right reasons, then the rationale for ϕ -ing is completely out of one's epistemic grasp. This means that if she were to ϕ , she would do what she ought as a matter of pure chance or luck. This is doubly suspect because in such cases it is *impossible* to praise or assign credit to the agent despite doing exactly what she ought to do.

Lord goes on to argue that acting according to the right reasons requires *possessing* the right reasons, characterizing possession as bearing a positive epistemic relation to the reason. *S* possesses a reason *r* if she is in a position to justifiably access *r* without a significant change in her epistemic situation. What this amounts to in the case of inferential beliefs is that you could come to have a justified belief that *r* if you could and did attend to the contents of your existing beliefs and formed the belief in the right way. In the case of non-inferential beliefs, you have some experiences such that if you could and did attend to certain features of those experiences, and formed the belief *r* in the right way, you would have a justified belief that *r*. Note that this means that the agent does not in fact have to know or believe that *r*, but only that she would be able to come to believe it.¹⁴ Possession is a necessary condition for acting for the right reasons since in order to act for the right reasons, the facts must be epistemically available to you. A reason cannot explain and justify your act if you are unaware and cannot become aware of the reason. Lord's argument provides strong support for the view that an agent's obligation is determined by facts accessible to her by emphasizing the intuitive link between obligation and deliberative capacity. That is, an agent must not only be physically, but also deliberatively capable of acting according to her obligation. What, then, does this tell us about genetic enhancements? Insofar as the harm caused by genetic intervention was not foreseeable, it cannot create an obligation to refrain from

14. There are two ways in which my remarks depart from Lord's position. First, Lord presents both an epistemic and what he calls *treatment* condition as requirements for possession, but my focus will be limited to the former. There are two reasons for this. I want to focus on the importance of *epistemic* limitations when it comes to the obligation to enhance. In addition, I don't think that Lord makes a particularly strong case for the need for a treatment condition. Second, Lord argues that agents must be in a position to *know* the relevant reason. I think, however, that this is too strong. I argue only that parents must be in a position to have a justified belief that the enhancement in question is expected to promote the child's wellbeing.

intervention. This is because an obligation to ϕ requires possessing normative facts in favor of ϕ -ing. Harm to the child in the cases considered here, however, was not within the agents' epistemic ken, and therefore cannot affect their obligation to enhance.

While subjectivism appears to correctly incorporate our epistemic limitations, some might worry that it fails to recognize genuine obligations, say in the case of parents who are very poorly epistemically situated:

Influenza

While the flu is typically unpleasant and inconvenient, some strains can be fatal, especially to very young children and the elderly. Researchers uncover a particular gene that helps to immunize the body against all strains of the virus, making it the case that those who have this gene, either naturally or through genetic therapy, will, in all likelihood never have the flu. This not only eliminates some very uncomfortable experiences, but could potentially save lives. Prospective parents *U*, despite having the resources to use genetic enhancements, are not aware of these expected results and cannot become aware, as the news has not reached their rather small and isolated community.

We intuit that *U* has significant moral reason to enhance their child so that she is not susceptible to a potentially lethal virus. Because subjectivism determines obligation according to reasons that are epistemically accessible to subjects, it cannot recognize *U*'s obligation to use such an enhancement. What is more worrisome is if subjectivism might lead to the following sort of case:

Education

Suppose that Parents *A* live in a modern and highly-developed society. But they belong to a smaller community within this society in which schooling is strongly discouraged. There is a deeply entrenched and widespread belief that formal education leads to moral deterioration and inhibits cognitive development by encouraging a sort of intellectual dependency on others. As a result many adults in this community end up without financial security, career options, etc.

We intuit that parents *A*, despite their beliefs, should send their children to school, just as parents *U*, should enhance their child with the anti-flu gene. These cases, however, are importantly different. In Influenza, parents do not have access to information about

the gene. That is, there is nothing about their sensory experience or prior beliefs that can allow them to infer the obligation to enhance their child. Parents in the second case, however, have evidence that depriving children of education decreases the likelihood of achieving a good life. Because they are in a position to form a justified belief about the benefits of schooling, they are morally obligated to provide education for their children according to subjectivism.

One might, however, argue that regardless of *U*'s epistemic position, they are required to affix their child with the anti-flu gene. While it is clear that it would be best to genetically intervene, what parents ought to do will diverge from what is best in these cases. This is because obligation must be constrained by an agent's capacity, which includes both physiological and deliberative abilities. While the endangered status of humpback whales gives us reason to protest whale hunting, which may result in a state of affairs that is overall better than what would occur if we did not protest, such reasons cannot *obligate* us to participate unless we are both physiologically and deliberatively capable of acting on this reason. If one is required, regardless of such abilities, to always achieve the best possible circumstances, this would in fact engender a highly implausible set of 'oughts'.

Another reason that one might believe that subjectivism does not generate the right verdict is because how we might advise parents. It is clear that if *U* were to ask *our* advice, we would counsel them in favor of the relevant enhancement, without first considering their epistemic status. This is nicely brought into relief by Graham (2010):

The question I want answered when I ask myself what my moral obligations are is the same as that which I want answered when, in seeking your help, I ask you what they are; but, to adequately answer me you don't need to consider my evidence concerning my situation; therefore, my moral obligations don't depend on my evidence concerning my situation. (91)

And again here by Thomson (1986):

On those rare occasions on which someone conceives the idea of asking for my advice on a moral matter, I do not take my field work to be limited to a study of what he believes is the case: I take it to be incumbent on me to find out what is the case. (179)

Given that we would *advise* parents *U* to provide the anti-flu enhancements, it might be argued that moral obligation is *not* limited by epistemic constraints.

This conclusion does not follow. Following Lord, I want to say that this has to do with the semantic referent of 'ought', which is not univocal. Rather, 'ought' statements are relativized to different bodies of information. We can ask what parents A ought to do from the body of information salient and accessible to them, and we can ask what parents ought to do from the body of information salient and accessible to us as their advisers. Though different, both will be true relative to our unique information. Our judgments do not establish U's *moral obligation* from their limited epistemic position. This would of course change once U were able to access the relevant truths.

Conclusion

I have argued here that we cannot respond to the problem of harm by denying that certain forms of genetic intervention cause harm or claiming that some cause less harm than others. A more effective strategy is to recognize that this is fundamentally a disagreement about how to approach parental obligation. The objection from harm raises doubts about the obligation to use ethical enhancements only if we accept that obligation is determined by all relevant facts. I have argued, however, that it is more reasonable to accept a subjectivist view of parental obligation. Subjectivism accommodates the intuitive link between deliberative capacity and obligation, and as such, reflects our judgment about parental obligation outside of the context of genetic enhancement. For this reason, actual and unforeseeable harm cannot remove our obligation to intervene.

References

- Buchanan, Allen, Dan Brock, Norman Daniels and Daniel Wilker. 2000. *From Chance to Choice: Genetics and Justice*. New York: Cambridge University Press.
- Daniels, Norman. 2013. "Can Anyone Really be Talking about Ethically Modifying Human Nature." In *Human Enhancement*, edited by Julian Savulescu and Nick Bostrom. Oxford: Oxford University Press.
- Davis, Dena. 2010. *Genetic Dilemmas: Reproductive Technology, Parental Choices and Children's Futures*. New York: Oxford University Press.
- Feinberg, Joel. 1980. "The Child's Right to an Open Future." In *Whose Child? Children's Rights, Parental Authority and State Power* edited by W. Aidken and H. LaFollette. Totowa, NJ: Rowman and Littlefield.
- Harris, John. 2010. *Enhancing Evolution - the Ethical Case for Making Better People*. Princeton, NJ, USA: Princeton University Press.
- Herzberg, Larry. 2007. "Genetic Enhancement and Parental Obligation". *Philosophy in the Contemporary World* 14 (2): 98-110.
- Parfit, Derek. 1984. *Reasons and Persons*. Oxford, Oxford University Press.
- Parfit, Derek. 1976. "Rights, Interests and Possible People." In *Moral Problem in Medicine* edited by Gorovitz, Jemeton, Macklin, O' Connor, Perrin, St. Clair and Sherwin, 369-375. New Jersey: Prentice-Hall Inc.
- Lord, Errol. Forthcoming "Acting for the Right Reasons, Abilities and Obligation." In *Oxford Studies in Metaethics*, vol. 10 edited by Russ Shaffer-Landau.
- Lord, Errol. 2013. "The Importance of Being Rational." Ph.D. diss., Princeton University.
- McMahan, Jeff. 1997. "Wrongful Life: Paradoxes in the Morality of Causing People to Exist". In *Rational Commitment and Social Justice* edited by Jules L. Coleman and Christopher W. Morris, 208-248. New York: Cambridge University Press.
- Sandel, Michael. 2007. *The Case Against Enhancement*. Cambridge: Harvard University Press.
- Savulescu, Julian. 2010. "In Defense of Selection for Nondisease Genes." *The American Journal of Bioethics* 1 (1): 16-19.

- Savulescu, Julian and Guy Kahane. 2009. "The Moral Obligation to Create Children with the Best Chance of the Best Life." *Bioethics* 23 (5): 274-290.
- Savulescu, Julian. 2009b. "Genetic Interventions and the Ethics of Enhancement of Human Beings" In *The Oxford Handbook of Bioethics* edited by Bonnie Steinbock, 516-535. New York: Oxford University Press.
- Savulescu, Julian and Melanie Hemsley, Ainsley Newson and Bennett Foddy. 2006. "Behavior Genetics: Why Eugenic Selection is Preferable to Enhancement." *Journal of Applied Philosophy* 23 (2): 157-171.
- Savulescu, Julian. 2001. "Procreative Beneficence: Why we should Select the Best Children" *Bioethics* 15 (5/6): 413-426.