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JOURNAL OF MORAL PHILOSOPHY 12 (2015) 731-753

JOURNAL OF  
MORAL  
PHILOSOPHY



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# Whom Should We Enhance? The Problem of Altering Potential

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## Abstract

Suppose a woman can carry to term only one of two viable embryos. One has the genetic potential to become a normal child. The other has a gene that gives it the potential for both the artistic genius and the severe manic-depression of the painter Vincent Van Gogh. I think it would be permissible to select either embryo. But I also believe that it would be impermissible to intervene to turn an embryo that has the potential to be normal into a potential Van Gogh, and *vice versa*. The paper aims to resolve the tension between these beliefs.

## Keywords

genetic enhancement – practical ethics

Take a case of embryonic selection. A woman has two viable embryos, but she can carry only one of them to term. One embryo has the genetic potential to become a normal child. The second embryo has a gene that gives it the potential for both the artistic genius and the severe manic-depression of the painter Vincent Van Gogh. Key to this example is that the alternative to a normal child is a child with the potential to achieve an extraordinary life containing a great deal of value – from both the objective and her own subjective points of view – with a concomitant risk of suffering considerable hardships.<sup>1</sup>

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1 I owe the contrast of extraordinariness and hardships in the life of a great artist who also suffers a great deal of pain to Frances Kamm's "Disability, Discrimination, and Irrelevant Goods," in Kimberley Brownlee and Adam Cureton, Eds., *Disability and Disadvantage*, (Oxford, 2009), p. 316.

I think that it would be permissible for the woman (or parents) to select either embryo. But I also believe that it would be *pro tanto* impermissible to intervene to turn an embryo or an early fetus that has the potential to be normal into a potential Van Gogh, and *vice versa*.

Suppose you share my intuitions. How might we seek to defend these apparently contrasting intuitions? (I shall henceforth refer to this as the Problem).

The task of this paper is to defend the second of these intuitions (which says, again, that it is *pro tanto* wrong to transform an embryo or fetus that has the potential to become a normal child into a potential Van Gogh, and *vice versa*). For the purposes of this paper, I shall treat the claim, which is affirmed in the first intuition, that, in this case, selection is permissible as given, and as a condition in accordance with which the impermissibility of intervention must be justified.

For the purposes of this paper, I shall also assume that certain interventions (genetic or otherwise) are permissible to be performed on embryos and early fetuses: namely, those interventions that are unambiguously enhancing.<sup>2,3</sup> An acceptable justification must therefore permit these enhancing interventions, which include the following: those interventions that alleviate adverse conditions like Down's Syndrome or chronic pain, those that provide valuable all-purpose means like high intelligence or good eyesight, and those that provide or enhance traits that are worth having for their own sake, such as a sense of musicality.<sup>4</sup> Interventions in which an embryo or early fetus' potential for one valuable trait would be enhanced at the expense of its potential for another, equally-valuable trait – for example, an intervention that would enhance the future child's musicality, but have the foreseen side-effect of diminishing proportionately her visual-aesthetic sensibility – are harder cases. It strikes me as

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2 In keeping with this assumption, I shall not take up any of the generic – or broad-spectrum – objections against enhancement, familiar within the philosophical literature, in the present paper. Prominent examples of such objections include the claim that unequal access to enhancement technologies gives the wealthy (further) unfair advantages, which they have moral reason to refrain from exploiting, and the claim that the use of pre-natal enhancements is in tension with the “accepting love” that parents ought to express toward their children. For a thoroughgoing treatment of these, and other objections, see Frances Kamm's “What Is and Is Not Wrong With Enhancement,” in Julian Savulescu and Nick Bostrom, Eds., *Human Enhancement*, (Oxford, 2009). See also Michael Sandel's canonical “The Case Against Perfection,” in *The Atlantic Monthly* 293:3 (April 2004).

3 I shall presuppose throughout that there is no possibility of obtaining consent (or its denial) from the intended recipient of any of the interventions under discussion.

4 I offer argument in support of these claims in my “The Case Against Enhancement,” unpublished.

unclear intuitively whether this kind of intervention is permissible. Notice that this represents a simplified version of the Problem: simplified because, unlike in the Van Gogh case, this intervention would merely replace one valuable trait with a comparable trait of equal value; it would not impart any concomitant benefits or burdens. I shall say more about this kind of case later.

The challenge is thus to explain how it might be *pro tanto* impermissible to alter the potentials of an embryo or an early fetus, either to cause that embryo or fetus to develop or to prevent it from developing into a potential Van Gogh, given that it is permissible for prospective parents to create or to prevent the creation of a potential Van Gogh through embryonic selection, and given that it is not categorically problematic for prospective parents to intervene to alter the potentials of their future children.

I shall proceed as follows. In each of sections I-III, I shall consider a different candidate solution to the Problem. The first of these candidate solutions claims that intervening would make the future child potentially worse off than she would otherwise have been. The second appeals to the asymmetry between benefits and harms, and the third appeals to the significance of entitlements. I shall claim that none of these candidate solutions succeed. In section IV, I shall turn to Elizabeth Harman's Actual Future principle in order to generate a successful solution. I shall also propose a new principle, called the Principle of Preserving Valuable Potential, to give this solution additional support.

## I

Co-Authors Julian Savulescu, Melanie Hemsley, Ainsley Newson, and Bennett Foddy present an example like the Problem in their paper "Behavioural Genetics: Why Eugenic Selection is Preferable to Enhancement."<sup>5</sup> They explain the intuition that selection is morally permissible, while intervention is morally troubling or *pro tanto* impermissible in this case, in the following way:

Genetic enhancement (or genetic manipulation generally) affects an identifiable individual for better or worse. When considering a possibly-enhancing intervention, there are two possible futures for the *same person*. If Vincent actually ends up worse-off than he would otherwise have been as a result of the enhancing intervention, he has been harmed and

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5 Julian Savulescu, Melanie Hemsley, Ainsley Newson, and Bennett Foddy, "Behavioural Genetics: Why Eugenic Selection is Preferable to Enhancement." *Journal of Applied Philosophy*, Vol. 33, No. 2 (2006), pages 157–171.

may have a legitimate complaint against his parents and/or doctors. Yet if Vincent is born from genetic selection, persons with and without the predisposition to manic depression would be different people. The selected-Vincent would not have existed but for his parents decision to select the embryo he developed from.... Hence, [the selected-]Vincent cannot be said to have been harmed by his parents' decision. He is not worse off than 'he would otherwise have been, as he wouldn't otherwise have been.'<sup>6</sup>

For these authors, selection is permissible because, assuming that a child is born into a life that is worth living, she is not harmed by being created. By contrast, purportedly-enhancing interventions can harm a particular child by making her life go worse than it would otherwise have gone. For example, a child who began as an embryo with the potential to become a Van Gogh, whose parents destroyed that potential when she was a fetus, might complain about her lost capacity for creativity; she might say that her life would have been better in possession of that capacity, even with its accompanying burdens. Likewise, a child who would have been normal if her parents had not intervened to alter her might complain that the intervention imposed the burdens of manic-depression on her, which she would have preferred not to bear.

These authors offer an attractive solution to the Problem, but it does not succeed. First, notice the following. The authors' candidate solution turns on the moral significance of the distinction between acts and omissions. Intervening is potentially wrong, in each instance, because it might make the recipient of the intervention "worse-off than she otherwise would have been if that [intervening] act had not been performed."<sup>7,8</sup> In both the Problem and the authors' example, however, the expected negative effects of not intervening on the normal embryo are exactly the same as the expected negative effects of intervening on the embryo that has the potential for the capacities of Van Gogh (and *vice versa*). For example, a normal child might complain that her parents passed up the opportunity to endow her with the potential for extraordinary creativity, the concomitant burdens of which she would have accepted. This child is no better off than a child who lacks the capacity for extraordinary creativity as the result of a prenatal intervention. (For the present purposes,

6 Ibid., p. 163.

7 Savulescu et al. "Behavioural Genetics," p. 163.

8 My claim here is that Savulescu et al. tacitly appeal to the acts/omissions distinction in their argument against intervention. I do not claim that they appeal to it in their defense of selection. In fact, the acts/omissions distinction has no bearing on their defense of selection.

I shall assume that interventions are cheap, safe, and accessible). The only difference is that in one case the child is worse off as a result of her parents' act; in the other she is worse off as a result of her parents' omission.

This observation prompts two objections to the authors' proposed solution. The first is *ad hominem*; it claims that the authors' solution is not available to Savulescu et al. I shall come to the second later.

The first objection is as follows. Savulescu argues elsewhere that the duty not to harm and the duty to aid are equivalent when both will lead to the same outcomes.<sup>9</sup> He denies the moral significance of the difference between acts and omissions (to which, again, his proposed solution to the problem implicitly appeals), claiming that what matters is achieving the best consequences – in this case, the best life for the child. On this view, if it would be better for the child to have the capacities of Van Gogh, then intervening on the embryo with the potential for such capacities would be *pro tanto* prohibited and intervening on the normal embryo would be *pro tanto* obligatory. (If it would be better for the child to have a normal life, then the opposite would follow). I conjecture, however, that *ex ante* the two prospective lives have parity of value for the child, which means that neither one promises to be better (or worse) than the other, all things considered, although they are too different qualitatively to measure as equally good.<sup>10</sup> As stated earlier, one life contains the potential for extraordinary creativity – which I shall assume is a substantial good – but also the prospect of significant hardships. The other life does not have the same potential for creativity, but it has a lower risk of hardship and it promises the benefits of a normal life. I believe that it is therefore impossible to predict *ex ante* which of these lives would actually be better for the child. Mark that the foregoing conjecture states an important assumption of this paper, which has thus far been tacit. (Not least, it helps to explain the intuition that parents do not have a moral reason to select either the normal embryo or the embryo with the potential for the capacities of Van Gogh, all else being equal). In addition, in the immediate context, it implies that, on Savulescu's view, both intervening and not intervening should be *pro tanto* permissible with respect to both embryos. *Ex ante*, neither one is more likely to produce a better life for the child.

9 See, for example, Savulescu, "Future People, Involuntary Medical Treatment in Pregnancy and the Duty of Easy Rescue," *Utilitas*, Vol. 19, No. 1 (March 2007), pp. 1–20 and Savulescu, "Enhancement, Procreative Beneficence and Disability: The Moral Obligation to Enhance and Create the Best Children." Presented at Harvard Law School (March 2007).

10 Ruth Chang, "The Possibility of Parity," *Ethics*, Vol. 112 No. 4 (July 2002), pp. 661–662.

Let me now turn to the second objection, which is that even if the difference between acts and omissions is indeed morally significant, the fact that someone's parents committed an act that resulted in her life going worse than it would otherwise have gone does not, by itself, give her a legitimate complaint against her parents. If an existing child has a legitimate complaint against her parents, it is because her parents violated an obligation that they had toward her, for example, to provide her with certain benefits or treat her in certain ways. Parents, however, are not obligated to secure for their child the best of all of the possible lives that she could live. Moreover, parents are not obligated to refrain from acting in ways that shape their child's fate. Parents make choices that shape the lives of their children all the time; they do so based on their judgments of what is in their children's best interests, on their own values, and so forth. That a child's life goes worse than it would otherwise have gone in virtue of some of those parental choices is not a sufficient condition for giving that child a legitimate complaint against her parents – especially if her parents acted in accordance with what they reasonably believed to be her best interests, in accordance with parental virtues, and so forth.

This line of argument applies to acts that parents perform pre-natally on their future children in the following way. Suppose, for the sake of argument, that parents have an obligation to provide their future child with the best life prospects that they can, *ex ante* (I shall return to this claim later). Presumably, however, they do not have an obligation to provide their future child with any particular set of life prospects in lieu of any other, no less valuable set. It is thus *pro tanto* permissible for parents to make choices that affect their future child's life prospects, as long as they do not diminish that child's life prospects (and as long as they do not thereby pass up the opportunity to endow their child with even better prospects). The fact that someone's parents made a decision that altered, but did not detract from her life prospects *ex ante* does not give her a legitimate complaint against them, even if her life goes less well than it would otherwise have gone in virtue of their decision.

My main claims thus far may be summarized as follows. The authors claim that it is *pro tanto* wrong to intervene to alter both the Van Gogh fetus and the normal fetus because, in each case, intervening might make the future person worse off than she would otherwise have been. The authors' claim, however, does not succeed. *Ex ante*, the life prospects of each fetus with and without the intervention are on a par. Suppose that parents are obligated to provide their future child with the best life prospects that they can *ex ante*. It does not follow from this supposition that they are obligated to give their child the set of life prospects that will in fact produce the best life for her *ex post*. Furthermore, the foregoing supposition is consistent with the claim

that it is *pro tanto* permissible for parents to give their future child one set of life prospects rather than another if neither set is more valuable than the other *ex ante*. Thus, even if the parents in the Problem perform an intervention on their fetus, which, indeed, makes their future child worse off than she would otherwise have been, it does not follow that they violated an obligation toward their child in performing that intervention.

Let me raise a final consideration here. A parental intervention that gives a normal fetus the potential for the capacities of Van Gogh raises the specter of moral luck.<sup>11</sup> The parents would effectively be gambling with their child's future, raising the probability that she will have either an extraordinarily good or an extraordinarily bad life. Arguably, we have significant moral reasons not to expose a future person to this kind of risk if there is a good enough, low-risk alternative.<sup>12</sup> Notice, however, that parents who fail to intervene to turn a potential Van Gogh into a potential normal child expose their future child to the same risks as parents who intervene to give their future child the potential to become a Van Gogh. If intervening to turn a potential normal child into a potential Van Gogh is *pro tanto* impermissible for reasons of moral luck, then, likewise, failing to intervene to turn a potential Van Gogh into a potential normal child is *pro tanto* impermissible for reasons of moral luck. Note that this follows even on the assumption that the distinction between acts and omissions is morally significant. If a future person's exposure to significant risks is an important moral consideration, then it generates not only a reason against exposing a future person to significant risks, but also a reason against failing to prevent a future person from being exposed to those risks. The distinction between acts and omissions establishes that the former reason is stronger, but both possess moral force.

## II

A different approach to the Problem appeals to the intuitive asymmetry between benefits and harms. There is a widely held intuition that the badness of a harm is more significant morally than the goodness of a benefit of the same (or even a greater) magnitude. Potentially, this intuition generates the

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<sup>11</sup> I owe this point to Julian Savulescu.

<sup>12</sup> Bernard Williams says, for example, that a trustee is not permitted to gamble with her infant ward's money, even if any profits would go to the infant. Bernard Williams, "Moral Luck," in his *Moral Luck* (Cambridge: Cambridge University Press, 1981), p. 32.

following solution to the Problem. Intervening would bestow a benefit and inflict a harm on both the Van Gogh fetus and the normal fetus. It would benefit the Van Gogh fetus by removing the risk of great psychological hardship; it would harm it by destroying its potential for artistic genius. Inversely, intervening would harm the normal fetus by creating the potential for great psychological hardship and benefit it by creating the potential for artistic genius. Assuming that the magnitude of these benefits and harms are on a par (which is my working assumption in this paper), the harm that the intervention would cause would defeat the corresponding benefit in both cases. Both interventions would therefore be impermissible.

For the purposes of this paper, I shall assume that there are indeed asymmetries in the moral significance of benefits and harms. The success of the preceding argument will thus turn on the nature of that asymmetry. In the paper “Wrongful Life, Procreative Responsibility, and the Significance of Harm,”<sup>13</sup> Seana Shiffrin sketches the following account of the asymmetry, which strikes me as largely correct. Consider harms first. Shiffrin identifies harms not as all of the conditions that make a person worse off than she would otherwise be, but rather, crucially, as “certain absolute, noncomparative conditions,”<sup>14</sup> which constitute or give rise to particular evils. On Shiffrin’s account:

[H]arm involves conditions that generate a significant chasm or conflict between one’s will and one’s experience, one’s life more broadly understood, or one’s circumstances. Although harms differ from one another in various ways, all have in common that they render agents or a significant or close aspect of their lived experience like that of an endurer as opposed to that of an active agent, genuinely engaged with her circumstances, who selects, or endorses and identifies with, the main components of her life. Typically, harm involves the imposition of a state or condition that directly or indirectly obstructs, prevents, frustrates, or undoes an agent’s cognizant interaction with her circumstances and her efforts to fashion a life within them that is distinctively and authentically hers—as more than merely that which must be watched, marked, endured or undergone. To be harmed primarily involves the imposition of conditions from which the person undergoing them is reasonably alienated or which are strongly at odds with the conditions she would rationally will; also, harmed states may be ones that preclude her from removing herself from

13 Seana Shiffrin, “Wrongful Life, Procreative Responsibility, and the Significance of Harm,” *Legal Theory*, Vol. 5, No. 2 (June 1999), pp. 117–148.

14 *Ibid.*, p. 123.

or averting such conditions. On this view, pain counts as a harm because it exerts an insistent, intrusive, and unpleasant presence on one's consciousness that one must just undergo and endure. Disabilities, injured limbs, and illnesses also qualify as harms. They forcibly impose experiential conditions that are affirmatively contrary to one's will; also, they impede significantly one's capacities for active agency and for achieving harmony between the contents of one's will and either one's lived experience or one's life more broadly understood. Death, too, unless rationally willed, seriously interferes with the exercise of agency. By constraining the duration and possible contents of the person's life, it forces a particular end to the person—making her with respect to that significant aspect of her life merely passive.<sup>15</sup>

Harmful conditions prevent a person from experiencing a life that accords with her desires, values, preferences, and so forth, and they obstruct or undermine a person's capacity for autonomy. They consign a person to a state of unhappy passivity in her own life. Pain constitutes a harm because it "exerts an insistent, intrusive, and unpleasant presence" on a person's life that is undesirable for its own sake, and which impedes her ability to form and carry out plans and projects. Disabilities constitute harms because, like pains, they are undesirable for their own sakes and because they encumber a person's ability to exercise her agency. On Shiffrin's account, depression is an exemplary harm: its experience is undesirable for its own sake and it can radically undermine a person's capacity for autonomy. Furthermore, depression includes feelings of hopelessness and inertia that can preempt a person's efforts to overcome it, which is also a prevalent feature of harms. In summary, Shiffrin claims that harms create a "stark cleavage between one's will and one's experience, life, or circumstances."<sup>16</sup>

Shiffrin contrasts harms with what she calls "pure benefits." She describes these as follows.

The central cases of *pure* benefits involve the enhancement of one's situation or condition, or the fulfillment of nonessential, but perhaps important, interests. Such enhancement and fulfillment go beyond merely securing the minima that make one's life more than tolerable and susceptible to active identification. The list of ... material enhancement, sensual

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15 Ibid., pp. 123–124.

16 Ibid., p. 125.

pleasure, goal-fulfillment, nonessential knowledge, [and] competitive advantage... seems roughly right.<sup>17</sup>

Pure benefits improve one's life in ways that go beyond removing or preventing harms.<sup>18</sup> They bestow gifts that can be valuable and important, but their absence does not threaten a person's basic well-being, nor does their absence interfere with a person's capacity for autonomous action. Concrete examples of pure benefits include financial windfalls, extraordinarily high IQs and other capacities for high achievement, and, perhaps, traits like perfect pitch. Shiffrin allows that sometimes, the loss of a pure benefit will also count as a harm. For example, if a person has lived with a pure benefit for a long time and has constructed her life plan on the basis of its continued possession, she will suffer significant pain over its loss (she may even suffer a temporary loss of her sense of autonomy). But failing to give someone a pure benefit does not constitute harming her.

Shiffrin's account illustrates the intuitive asymmetry between benefits and harms. It also generates the following claims. The moral significance of various harms is proportionate with one another. Thus, it is permissible to inflict a smaller non-negligible harm on a person in order to save her from suffering an even greater harm.<sup>19</sup> For example, it is permissible to break someone's arm, if doing so is necessitated in the course of saving her life.<sup>20</sup> The moral significance of harms, however, exceeds the moral significance of pure benefits. Thus, Shiffrin claims that it is impermissible to inflict a non-negligible harm on someone in order to provide her with even a very great pure benefit. She says, for example, that it is impermissible to break a comfortably well-off person's arm in order to provide her with a financial windfall of \$5 million.<sup>21</sup>

If Shiffrin is correct in denying a comparative dimension to harm (and her account strikes me as compelling in this respect), it undermines the foregoing candidate solution to the Problem that appeals to the asymmetry between benefits and harms. Notice, first, that Shiffrin's account supports the intuition

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17 Ibid., pp. 124–125.

18 Ibid., p. 124.

19 Ibid., pp. 126–127.

20 Ibid., pp. 126–127.

21 Ibid., p. 128. Notice that it is consistent with Shiffrin's account to claim that it would be permissible to impose an *insignificant* harm on a person in order to provide her with a significant benefit. For example, plausibly, it would be permissible to inflict a short, sharp burst of pain on someone in order to provide her with \$5 million. In this case, the benefit is substantial and, unlike in Shiffrin's original example, the harm is slight.

that it is *pro tanto* impermissible to intervene to turn a normal fetus into a potential Van Gogh. On Shiffrin's account, harms to future persons are directly analogous to harms to existing persons. That the harmful effects of an action will not be experienced immediately (or will not be experienced by someone who exists when the act is performed) does not dilute the harm done, nor does it mitigate the moral significance of the harm. Imposing the burdens of manic depression on a future person thus qualifies as harming her on Shiffrin's account: the depressive periods of manic depression represent quintessential harms. By contrast, endowing a person with the capacity for extraordinary creativity would be providing her with a pure benefit. Intervening to give a normal embryo the potential to become a Van Gogh would therefore impose a non-negligible harm on the future person in order to provide her with a pure benefit. That is impermissible on Shiffrin's account.

Now consider the case of the Van Gogh embryo. If an *existing* person possesses the capacities of Van Gogh, removing or disabling those capacities would harm her: if she is invested in or strongly identifies with any of these capacities, their removal would burden her with a harmful loss. However, removing a person's potential to possess the capacities of Van Gogh *ex ante* does not harm her: it prevents the attachment to those capacities, which would qualify their loss as a harm, from ever forming. Once again, the potential for extraordinary creativity qualifies as a pure benefit, *ex ante*. Furthermore, being at risk of developing severe manic depression is, again, to be at risk of suffering a non-negligible harm. Thus, while intervening to make a Van Gogh fetus normal would deny a future person the pure benefit of creativity, it would not harm her on Shiffrin's analysis of harms. On the contrary, it would rescue her from the potentially serious harm of manic depression. This implies that it is permissible to intervene to give the Van Gogh fetus the potential to be normal on Shiffrin's account. Intervening would block a future person's access to a pure benefit as a necessary means of rescuing her from a non-negligible harm. Given both that harms have greater moral significance than pure benefits and that it is permissible to harm someone non-negligibly in order to rescue her from a greater harm, it follows that it is also permissible to deny someone a pure benefit in order to rescue her from a non-negligible harm.<sup>22</sup>

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22 Kamm makes a parallel claim with respect to existing persons. Kamm says that it would be wrong to impose hardship on a person – or to fail to rescue a person from hardship without her consent – even if experiencing that hardship would make her life go better overall, say by enabling her to become a great artist. See Kamm, "Disability, Discrimination, and Irrelevant Goods," p. 316.

Furthermore, some of Shiffrin's remarks later in her paper support a stronger conclusion with respect to the Van Gogh fetus. On Shiffrin's account, parents may have a *pro tanto* obligation to change a fetus with the potential to be a Van Gogh into a normal fetus. Consider the following. Shiffrin points out that in ordinary acts of procreation:

[E]ven though procreators may benefit their progeny by creating them, they also impose substantial burdens on them. By being caused to exist as persons, children are forced to assume moral agency, to face various demanding and sometimes wrenching moral questions, and to discharge taxing moral duties. They must endure the fairly substantial amount of pain, suffering, difficulty, significant disappointment, distress, and significant loss that occur within the typical life. They must face and undergo the fear and harm of death. Finally, they must bear the results of imposed risks that their lives may go terribly wrong in a variety of ways.<sup>23</sup>

By contrast, abstaining from having children does not harm anyone, other things equal. Non-existent people have no lives that can go better or worse; likewise, it is impossible for someone who has never been created to experience suffering. Shiffrin thus claims that procreation is always a "morally hazardous activity":<sup>24</sup> it imposes significant harms on the children created, without concomitantly rescuing them from greater harms. Nonetheless, she does not conclude that procreation is impermissible. Rather, she says that "non-consensual, burden imposing actions" are "morally problematic but not always impermissible" and that regardless, procreation might be a special case.<sup>25</sup> She claims, however, that parents are morally liable for at least some of the harms that their children experience in the course of their lives, and that this imbues parents with special responsibilities toward their children. In ordinary cases, Shiffrin says that "parental support and acknowledgement of responsibility"<sup>26</sup> may be sufficient for the discharge of these responsibilities. Her analysis suggests, however, that parents may have singular *pro tanto* duties to protect their children from extraneous harm (and perhaps also to provide their children with benefits), which go beyond ordinary duties of rescue (or beneficence). Plausibly, it suggests that parents have *pro tanto* obligations to remove extraneous risks of harms to their future children, thus minimizing

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23 Shiffrin, pp. 136–137.

24 Ibid., p. 137.

25 Shiffrin., p. 139.

26 Ibid., p. 140.

the risk of harm that they impose. The risk of manic depression, even with its concomitant benefit of creativity, might qualify as a risk that parents are *pro tanto* obligated to remove.

In summary, Shiffrin's account of the asymmetry between benefits and harms does not support the view of the Problem that I (and some others) find intuitive. Although Shiffrin's account supports the intuition that it is *pro tanto* impermissible to intervene to turn a normal fetus into a potential Van Gogh, it fails to support the intuition that it is *pro tanto* impermissible to intervene to turn the Van Gogh fetus into a potential normal child. On the contrary, it might support the opposite intuition, which says that that intervention is *pro tanto* obligatory.

This conclusion does not generate an objection to the position that I seek to defend, despite appearances to the contrary. *Pro tanto* obligations may conflict; thus, the claim that parents have a *pro tanto* obligation to alter the Van Gogh fetus and the claim that parents have a *pro tanto* obligation not to alter the Van Gogh fetus are consistent with one another. But notice that the foregoing conclusion (and, likewise, the factor of moral luck that I addressed in the previous section) implies that our all-things-considered judgments about the permissibility of intervening to alter the normal fetus and the Van Gogh fetus respectively will contain the following asymmetry. Given the particular force of the obligation not to harm, the balance of reasons will presumably weigh heavier against altering a normal fetus than against altering a fetus with the potential for the capacities of Van Gogh, regardless of whether the same or different all-things-considered judgments are reached about each case. I shall not, however, pursue such all-things-considered judgments further here. They are beyond the scope of this paper.

### III

Frances Kamm offers a distinct principle, which potentially serves my purposes: she claims that it is more important to help someone *keep* a valuable thing than it is to help her *obtain* a valuable thing. This is because people have entitlements to the valuable things that they already have.<sup>27</sup> An implication of this principle is that it would be wrong to remove one of a person's valuable

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27 Kamm, "Genes, Justice, and Obligations to Future People," *Social Philosophy and Policy*, Vol. 19 No. 2, (July 2002), pp. 360–388 and "Moral status and Personal Identity: Clones, Embryos, and Future Generations," *Social Philosophy and Policy*, Vol. 22 No. 2 (July 2005), pp. 283–307.

traits and replace it with a different, equally valuable trait without her consent. Even though the victim would not suffer a loss of value in the exchange (and setting aside the feelings of loss that would accompany the removal of a trait with which she identifies), her entitlement would be violated.

One might apply this principle to the Problem by proposing that fetuses are entitled to keep their valuable potentials, just as persons are entitled to keep their valuable possessions, traits, and so forth. Kamm claims that persons can be entitled to their valuable prospects, or valuable potentials, in the same way in which they are entitled to their valuable traits.<sup>28</sup> But Kamm rejects the notion that fetuses can have entitlements explicitly: she says that fetuses are not persons and, thus, are not the sort of beings that have entitlements.<sup>29</sup>

Kamm offers an example to emphasize and also to support this claim. She says that it would be permissible for a prospective mother to reduce her fetus' IQ potential from 160 to 140, even though the future child would be better off with an IQ of 160, because the mother thinks that a child with an IQ of 160 would be too smart for the rest of the family.<sup>30,31</sup> A fetus with an IQ potential of 160 is not entitled to keep that potential.<sup>32</sup> Kamm claims, moreover, that an IQ of 140 is well above the minimum standard parents owe to the children they create, so parents are not obligated to secure their future children's access to the benefits of an additional 20 IQ points.<sup>33</sup> Kamm says that, by contrast, it would be impermissible to reduce an existing child's IQ potential in this way. Children are persons, with entitlements to keep their valuable traits and potentials.<sup>34</sup>

<sup>28</sup> Kamm, "Genes, Justice, and Obligations to Future People," p. 380.

<sup>29</sup> Kamm, *ibid.*, p. 377 and "Moral Status and Personal Identity," p. 301.

<sup>30</sup> Kamm presents this example in "Genes, Justice, and Obligations to Future People," p. 377 and again in "Moral Status and Personal Identity," pp. 301–302.

<sup>31</sup> For the purposes of her example, Kamm stipulates that the parents' reason for lowering their fetus' IQ potential concerns the good of the family, which is contrasted with the good of the future child. But it is worth recognizing that parents may have good reason to lower a fetus' IQ potential for sake of the future child. For example, if a child is much smarter than her family members and her peers, she might experience severe social isolation, a fate her parents would presumably wish to spare her. Thus redescribed, however, the example becomes a less-dramatic version of the Problem: once again, parents are faced with endowing their child with the capacities for a normal life, or with the capacities for an extraordinary life that carries substantial concomitant burdens.

<sup>32</sup> Kamm, "Genes, Justice, and Obligations to Future People," p. 377 and "Moral Status and Personal Identity," p. 301.

<sup>33</sup> Kamm, "Genes, Justice, and Obligations to Future People," p. 377 and "Moral Status and Personal Identity," pp. 301–302.

<sup>34</sup> Kamm, "Genes, Justice, and Obligations to Future People," p. 377 and "Moral Status and Personal Identity," p. 302.

If Kamm's analysis of this example holds up, it will have troubling implications for my project. On Kamm's analysis, it is permissible to perform an intervention on a fetus to make its future life prospects worse than they would otherwise have been. By contrast, in the Problem, intervening would change the life prospects of a fetus, but would not make its life prospects worse: as stated earlier, the fetus' two possible futures have parity of value, *ex ante*. If it is permissible to perform an intervention on a fetus that worsens its life prospects, then it will also be permissible to perform an intervention on a fetus that changes its life prospects without making them worse, other things being equal. (I shall set aside the obligation not to harm for now.)

In one respect, my prospects for success in the present task will be unaffected by Kamm's conclusion. The stated task of this paper is to show only that we have a *pro tanto* obligation not to intervene to alter either of the two fetuses in the Problem. This is compatible with the claim that that *pro tanto* obligation will ultimately be overridden by other considerations. But the primary interest of this project hinges on the prospect that the *pro tanto* obligation that I seek to articulate will possess sufficient moral force to make a significant contribution to moral deliberations about the Problem (and about other cases like it). If Kamm's analysis of her example holds up, it will also establish, as a foregone conclusion, that the interventions in the Problem are permissible, all things considered, thereby sidelining the conclusions of the present paper.

Before responding to the challenge posed by Kamm's example, let me articulate more clearly the reasons that Kamm gives for the permissibility of reducing a fetus' IQ potential from 160 to 140. First, Kamm says that this IQ reduction does not violate the fetus' entitlement because the fetus is not yet a person, nor does it "have other properties that make it an entity that is entitled to keep what is given to it."<sup>35</sup> Second, she claims that parents are not obligated to bestow IQs of 160 on the persons that they create. Kamm grants that parents have some obligations to their future children before those children come into existence; she claims, however, that those obligations are limited to the demands of respect for persons.<sup>36</sup> Respect for persons requires that we provide future persons with the capacities and conditions for a life worth

35 Kamm, "Moral Status and Personal Identity," p. 302.

36 Kamm, "Genes, Justice, and Obligations to Future People," p. 368, "Moral Status and Personal Identity," p. 287, and "What Is and Is Not Wrong with Enhancement," presented at the DeCamp Bioethics Seminar, Princeton University (December 2007), p. 28. The following list of the requirements of respect for persons is also drawn from Jeff McMahan's discussion of the morality of respect in *The Ethics of Killing: Problems at the Margins of Life* (New York: Oxford University Press, 2002).

living<sup>37</sup> and for the exercise of autonomy.<sup>38</sup> It demands that we refrain from harming them (on something close to Shiffrin's analysis of harms).<sup>39</sup> Respect for persons, however, does not obligate us to provide future persons with the most beneficial traits and capacities that we can, over and above these basic requirements. An IQ of 140 is more than sufficient for a life worth living and for the exercise of autonomy; possession of an IQ of 140 does not constitute a harmful condition. Providing future persons with IQs above 140 (or protecting future persons' access to IQs above 140) is therefore benefitting them in ways that go beyond the demands of respect for persons. Thus, Kamm concludes that parents are not obligated to provide their future children with IQs of 160.

Suppose, for the sake of argument, that Kamm is right to deny that fetuses have entitlements. Suppose, also, that her account of the requirements of respect for persons is correct. The plausibility of Kamm's conclusion will thus turn on whether her claim that parents' only obligations to their future children are those of respect for persons is more attractive than the viable alternatives. I do not find it to be so.

Here is one such alternative. Savulescu proposes, *contra* Kamm, the Principle of Procreative Beneficence,<sup>40</sup> which says that parents have a *pro tanto* obligation to provide their future children with the best life prospects that they can.<sup>41</sup> This proposal strikes me as more attractive than Kamm's conclusion. Future persons have strong interests in possessing the best life prospects that are available to them. It is plausible that their parents have correspondingly "significant moral reason[s]"<sup>42</sup> to promote those interests. Even though parents' obligation to provide their future children with the best life prospects available might be weaker than the obligations generated by entitlements and by respect for persons, it still possesses moral force.

Presumably, in Kamm's example, the future person's interest in possessing an IQ of 160 rather than 140 is stronger than the other family members' interests in not gaining a member who is too smart. That fact, taken with the Principle of Procreative Beneficence, is sufficient to render it impermissible for the mother in Kamm's example to take a drug to diminish her fetus' IQ potential, even though her taking the drug would not violate anyone's entitlement and is

37 Kamm, "Genes, Justice and Obligations to Future People," p. 379.

38 Kamm, "What Is and Is Not Wrong with Enhancement," p. 30.

39 McMahan, p. 302.

40 Savulescu, "Enhancement, Procreative Beneficence and Disability," p. 8.

41 Savulescu proposes the Principle of Procreative Beneficence as a principle of selection, but it can easily be extended to cover pre-natal interventions. See *ibid.*, p. 13.

42 *Ibid.*, p. 9.

compatible with respect for persons. The mother has a *pro tanto* obligation to provide her future child with the best life prospects that she can. The interest generating this obligation is not outweighed by competing interests. Nor is this obligation defeated by other countervailing moral considerations. (In this case, no other countervailing considerations were introduced.) The mother therefore ought to act in accordance with this obligation, all things considered.

Although the Principle of Procreative Beneficence rescues my project from the challenge posed by Kamm's example, it is unhelpful in advancing a solution to the Problem. As noted earlier, the life prospects of a person with the capacities of Van Gogh and the life prospects of a person with the capacities to be normal have parity of value, *ex ante*. *Ex ante*, a future person does not have an interest in possessing either set of capacities over the other. Appealing to the interests of the future person therefore does not generate a reason not to intervene to give a normal fetus the potential for the capacities of Van Gogh or *vice versa*. (Again, I am temporarily setting aside the obligation not to harm.) The interests of the parents may therefore be decisive in this kind of case. Presumably, parents will sometimes have reasons for preferring to have a child with one set of potentials rather than another, *ex ante*.

In summary, none of the considerations that I have addressed so far justify the intuitions that I set out to defend. The considerations of the interests of future persons and of entitlements both fail to generate obligations not to intervene to change a fetus' potentials from those of a normal child to those of Van Gogh, or *vice versa*. The consideration of harm (and, likewise, the consideration of moral luck) generates an obligation not to intervene to transform a fetus' normal potentials into those of Van Gogh, but it does not generate a parallel obligation not to intervene to transform a fetus' Van Gogh potentials into those of a normal child. On the contrary, it might generate a positive obligation to do so. The obligation not to harm thus accounts for some of my intuitions about this case; it comes into potential conflict with others.

I therefore conjecture that if my intuitions about this case are defensible, then fetuses (and embryos) that are going to become persons have a certain moral status, which limits the ways in which their parents (and others) may permissibly intervene to alter them, beyond the ways in which the factors that I have thus far considered do.

#### IV

The best way that I can see to solve the Problem appeals to Elizabeth Harman's Actual Future Principle. Harman states the Actual Future Principle as follows:

“An early fetuses [and presumably an embryo] that will become a person has some moral status. An early fetuses that will die while it is still an early fetus has no moral status.”<sup>43</sup> Harman doesn’t specify whether early fetuses that will become persons have the *same* moral status as persons, but it is a plausible interpretation of her view. Kamm notes that in explicating her principle, Harman says that “it is precisely these early fetuses [that will become persons] in which *persons can be said to already be present*.”<sup>44</sup> Kamm points out that “if a person is already present, then the fetus’s moral status should be the same as the status of the person.”<sup>45</sup> For the purposes of this paper, I shall assume that this interpretation of Harman is correct.

Harman’s Actual Future Principle strikes me as intuitively plausible, and, for the purposes of this paper, I shall assume that it is true. It might thereby yield the following principle, which I shall take as a starting hypothesis.

P1: It is permissible for parents to perform an intervention on an embryo or early fetus that is going to become a person if and only if it would be permissible for them to perform that intervention on their child at any time after she has become a person, without the child’s consent in the case of a child that cannot yet give its consent. (I assume that children are already persons at the time they are born.)

Before applying this principle to the Problem, let me test it against the set of permissible enhancing interventions that I noted at the beginning of the paper. Recall that this set includes those interventions that alleviate adverse or harmful conditions (such as chronic pain), those that provide valuable all-purpose means (such as good eyesight), and those that provide or enhance traits worth having for their own sake (like a sense of musicality). In brief, I think that it is *pro tanto* permissible for parents to intervene – through diet, drugs, or environmental intercessions – to alleviate their infants’ and young children’s harmful conditions, to enhance their existing valuable traits, and to provide them with the potential for additional valuable traits, assuming the children do not object. Plausibly, all of these interventions provide children with benefits without burdening them with harms. Therefore, according to P1, it is permissible to perform the equivalent interventions on embryos and early fetuses. P1 thus

43 Elizabeth Harman, “Creation Ethics: The Moral Status of Early Fetuses and the Ethics of Abortion.” *Philosophy and Public Affairs*, Vol. 28 No. 4 (Autumn 1999), p. 311.

44 Kamm “Moral Status and Personal Identity,” p. 300, quoting Harman p. 311. Kamm does not endorse Harman’s principle; on the contrary, she rejects it.

45 Kamm, *ibid.*, p. 300.

meets the initial condition I set for acceptability; it permits those interventions (genetic or otherwise) that are unambiguously enhancing.

Now let me apply P<sub>1</sub> to the intervention that I claimed was of intuitively unclear permissibility. Imagine that, either through manipulating their infant's diet or through exposing her to certain (pleasant) visual and aural stimuli, parents could enhance their infant's potential musicality, but concomitantly diminish her potential visual-aesthetic sensibility to the same degree. This intervention is *pro tanto* impermissible. Recalling and granting Kamm's claim that existing children possess entitlements, the child in this example has an entitlement to keep her valuable potentials, even as an infant. According to P<sub>1</sub>, it would likewise be impermissible to institute this sort of change in an embryo or an early fetus.

Notice that this example is comparatively easy to deal with because the value of the potential that would have been given to the child is equal to the value of the potential that would have been taken away. In this case, the child's entitlement is clearly the decisive consideration. More difficult cases arise, however, with the prospect of replacing one of a child's valuable potentials with a different potential of even greater value. For example, if a young child begins with the potential to be only a moderately good painter, replacing that potential with the potential to be a very good musician would benefit the child, overall. In such trade-off cases, the *pro tanto* obligation not to remove any of the child's valuable potentials conflicts with the *pro tanto* obligation to provide the child with the best available life prospects. My hunch is that a significant net gain in value would be needed to justify failing to honor a child's entitlement in trade-off cases of this kind. I shall not, however, attempt to adjudicate conflicts between these *pro tanto* obligations here. That task is beyond the scope of this paper.

### *The Solution*

The same line of reasoning that resolves simple trade-off cases can be applied to the Problem. It would be wrong for parents to intervene both to turn a young Van Gogh into a normal child and to turn a normal child into a young Van Gogh. This is because both the potential for Van Gogh-levels of artistic genius and the potential to live without the burdens of manic-depression are valuable. If a person has either of these valuable potentials, she has an entitlement to keep it; it is therefore *pro tanto* impermissible for others to intervene in order to remove it. Likewise, each of these potentials is valuable for an embryo or fetus that is going to become a person to have. It is therefore *pro tanto* impermissible to remove either of these potentials from an embryo or fetus that is going to become a person, even to replace it with something with (roughly) parity of value.

I think that this solution is largely correct. There is, however, a class of exceptions to P<sub>1</sub> that I need to accommodate. I shall lay out these exceptions first, and then revise P<sub>1</sub> in order to accommodate them. The revised P<sub>1</sub> (which I shall call P<sub>1</sub><sup>\*</sup>) will no longer generate the preceding solution to the Problem. I shall propose a new principle, called the Principle of Preserving Valuable Potential, which rescues the solution.

Before I come to the exceptions to P<sub>1</sub>, consider the following observation. Existing persons have (at least *pro tanto*) entitlements not only to their valuable traits and potentials, but also to all of the traits that help constitute the particular valuable persons that they are. In addition to the valuable traits noted earlier, these can include value-neutral traits like hair and eye color, skin color, and so forth. One implication of this observation is that, as children grow and develop their identities, their claims to keep their various identity-constitutive traits strengthen. Eventually, in the course of a child's development, many of the interventions that are permissible to be performed on infants and very young children will become impermissible to perform without the child's consent. Cochlear implants for deaf children are a plausible example of interventions that are *pro tanto* permissible on infants, but which become more objectionable in the absence of consent at later ages. Enabling a deaf infant to hear promotes her interests by expanding the range of valuable life-paths available to her; plausibly, it does not concomitantly harm her. An older child, however, might experience her deafness as an important aspect of her identity, the loss of which she would experience as a significant harm.

The preceding observation provides the groundwork for a class of exceptions to P<sub>1</sub>. The observation implies that, contrary to P<sub>1</sub>, there are some traits – specifically, value-neutral, identity-constitutive traits, like eye color – that have moral significance *ex post*, but no moral significance *ex ante*, which are therefore *pro tanto* impermissible to alter in an existing person at any time, but *pro tanto* permissible to alter in an embryo or early fetus that will become a person. For example, *ex post*, a person's green eyes are, plausibly, a part of her (developing) identity, even when that identity is still inchoate, which gives others a moral reason not to alter them, regardless of her age. Furthermore, altering someone's eye color does not promote any of her significant interests: it neither provides her with a benefit nor rescues her from a harm. Such interventions are therefore *pro tanto* impermissible to perform on existing persons at any point in their lives, without their consent: there is a moral reason against performing them, and no countervailing moral consideration in their favor. Value-neutral identity-constitutive traits, however, have moral significance only insofar as they contribute to persons' actual (developing) identities. *Ex ante*, a future person's prospective green eyes are morally insignificant: there is

no value in having the potential for any particular eye color, and a future person's prospective green eyes are not yet a part of any person's identity. Earlier, I claimed that it is impermissible to remove a future person's potential for traits like musicality because these traits are valuable for persons to have *ex ante*; this reason does not apply to traits that lack value *ex ante*. Furthermore, the moral reason for preserving existing persons' (developing) identity-constitutive traits does not apply to preserving future persons' prospective identity-constitutive traits: again, such traits have moral significance only when they are instantiated in persons' actual identities. Therefore, unlike interventions that would alter existing persons' identity-constitutive traits, interventions on embryos and early fetuses that would alter the future persons' value-neutral identity-constitutive traits are *pro tanto* permissible: the candidate countervailing reasons are not germane against these interventions.

Interventions that would alter a (future) person's (prospective) value-neutral identity-constitutive traits thus constitute a class of exceptions to P<sub>1</sub>: they are *pro tanto* impermissible to perform on existing persons, but *pro tanto* permissible to perform on embryos and early fetuses that will become persons. Given this class of exceptions, let me revise P<sub>1</sub>, by turning the stated (in P<sub>1</sub>) necessary and sufficient condition for permissibility into a merely sufficient condition:

P<sub>1</sub>\*: It is permissible for parents to perform an intervention on an embryo or early fetus that is going to become a person if it would be permissible for them to perform that intervention on their child at any time after she has become a person, without their child's consent in the case of a child that cannot yet give its consent.

The exceptions to P<sub>1</sub> undermine its assertion that the only interventions that are permissible to be performed on embryos and early fetuses are those that are permissible to be performed on existing persons: the exceptions demonstrate that some interventions that are impermissible on persons are nonetheless permissible on embryos and early fetuses. However, the claim that all of the interventions that are permissible to be performed on persons are also permissible to be performed on embryos and early fetuses remains unchallenged. P<sub>1</sub>\* preserves this claim.

There is, however, a disadvantage to replacing P<sub>1</sub> with P<sub>1</sub>\*, which is that unlike P<sub>1</sub>, P<sub>1</sub>\* does not generate the solution to the Problem that I have proposed. P<sub>1</sub>\* states a merely sufficient condition for the permissibility of interventions on embryos and early fetuses that will become persons. It does not establish that some interventions are (even *pro tanto*) impermissible on these embryos and early fetuses, which is what the solution requires.

To rescue the solution that I have advanced, a new principle is needed which limits the interventions that are morally permissible to be performed on embryos and early fetuses that will become persons, albeit less restrictively than P1. To uncover an eligible principle, return to the morally relevant difference between the potential for having green eyes, which is *pro tanto* permissible to be replaced in an embryo or early fetus, and the potential for having a sense of musicality or artistic genius, which is *pro tanto* impermissible to be replaced in an embryo or early fetus. Straightforwardly, the former potential has no particular value *ex ante*, whereas the latter potential has positive value *ex ante*.

Let me therefore propose P2, which I shall call the Principle of Preserving Valuable Potential:

P2: If an embryo or an early fetus that is going to become a person possesses the potential for a trait that it would be valuable for a person to have *ex ante*, then it is *pro tanto* impermissible for its parents (or for any others) to intervene to remove (or to diminish, etc.) that potential.

I shall conclude this section by reviewing its main theoretical claims. I said earlier that if my intuitions about the Problem are defensible, then embryos and early fetuses that will become persons have certain moral status, which limits the ways in which their parents may permissibly intervene to alter them. I introduced Harman's Actual Future Principle to articulate this status. I assumed (albeit tacitly) that if an embryo or fetus has moral status, then it is also a candidate for having certain entitlements that prohibit others from intervening on it in particular ways. After rejecting my original hypothesis, I offered the Principle of Preserving Valuable Potential, which, I propose, specifies those interventions that are *pro tanto* impermissible to be performed on embryos and early fetuses that will become persons in virtue of these embryos and fetuses' moral status.

Notice, however, that the obligation not to destroy or replace the valuable potentials of embryos and early fetuses that will become persons is weaker than the obligation not to destroy or replace the valuable traits and potentials of persons, in the following respect. The latter obligation is supported by considerations of identity (and attachments, and so forth) that do not apply to embryos and early fetuses. One implication of this claim is that it will take a smaller expected net gain in value for the duty to provide one's children with the best available life prospects to defeat the former obligation than the latter.

Still, I propose that the Principle of Preserving Valuable Potential possesses non-negligible moral force.

### Conclusion

In this paper, I set out to defend the intuition that it is *pro tanto* impermissible to transform an embryo or an early fetus with the potential to become a normal child into a potential Van Gogh, and *vice versa*. In the first three sections of this paper, I considered various strategies for defending these intuitions, and I argued that none of these strategies are successful. I conjectured, thereafter, that if my intuitions about this case are defensible, then embryos and early fetuses that will become persons have certain moral status, which limits the ways in which others may permissibly intervene to alter them. I stated Harman's Actual Future principle as a plausible articulation of this status (although I did not provide an argument in support of Harman's principle, a task that was outside the scope of this paper). By appealing to the Actual Future Principle, I claimed that it is *pro tanto* impermissible to destroy the potential of an embryo or an early fetus that will become a person to have either the capacities of a normal child to be free from the burdens of manic depression, or the capacities of Van Gogh, because both of these potentials are valuable for persons to have *ex ante*. I proposed a new principle, called the Principle of Preserving Valuable Potential, to articulate this *pro tanto* obligation.<sup>46</sup>

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46 I am extremely grateful to G.A. Cohen, Jeff McMahan, Thomas Pogge, Katherine Rickus, Julian Savulescu, and Sebastian Watzl for invaluable written comments and discussion. I also owe a debt of gratitude to the participants in Columbia University's Graduate Political Philosophy and Women and Philosophy discussion groups.