

Genetic modification of characteristic masculine traits: enhancement or deformity?

Jeff McMahan

Some philosophers, most notably Julian Savulescu, have argued that potential parents have a moral reason to do what they can to have a child with the highest expected level of well-being.¹ This is not just a reason to do what will make a particular child better off than he or she would otherwise be but also a reason to choose, from among different possible children, the one that has the highest expected well-being. The claim that potential parents have such a reason is then often deployed as a premise in arguments in support of genetic enhancement. Robert Sparrow has argued in response that this claim implies that potential parents have a reason to choose to have female children only, primarily because women are genetically disposed to live, on average, 3–7 years longer than men.² He takes this implication to be a *reductio* of this particular form of argument in support of human enhancement. In her paper, *Sexual dimorphism and human enhancement*, Paula Casal seeks to rebut Sparrow's argument and then goes on to suggest that a better case for the selection of female children could be made on grounds of *moral* enhancement, since women are far less genetically disposed to be violent and aggressive than men.³ Recognising, however, that the creation of only female children would lead to human extinction, she concludes that the way to achieve the best outcome would be to use techniques of genetic modification, should they become available, to make men more like women in certain respects: smaller, less aggressive, less competitive, less violent, less obsessed with sex, less prone to taking great risks, and less likely to die early from accident, combat, or disease.

Like Larry Temkin, I am largely in agreement with Casal on these matters. In this short commentary, I will explain why.

THE MORAL REASON TO SELECT THE BEST-OFF CHILD

Much of the dispute between Sparrow and Casal depends on how his *reductio* is

supposed to work. Suppose his claim is only that the position of Savulescu and others implies that, if it is reasonable for potential parents to believe that a female child would be likely to live 3–7 years longer than a male child, they have a moral reason, if other considerations are equal, to have a female child. This does not seem to be a *reductio* of the position, for it is entirely plausible that, if potential parents can have one or the other of two possible children and the only known difference that is relevant is that one is likely to live 3–7 years longer than the other, they have a strong moral reason to have the one with the significantly longer life expectancy. It seems, therefore, that for Sparrow's challenge to constitute a *reductio*, it must conjure up the spectre of what he calls a 'female planet,' or the prospect of human extinction (which I will here understand to mean the extinction of all beings with higher forms of self-consciousness) consequent upon the disappearance of males. But neither of these would result from even universal adherence to the imperative to have the best-off child. For as Sparrow recognises in passing, 'were the sex ratio to change dramatically enough, this might well have implications for which sex it would be rational to prefer to be'.² He does not, however, seem to appreciate the extent to which this fact diminishes the force of his *reductio*. The point is significant because, once the ratio of female to male children reached a certain point, it would cease to be true that female children would have a higher expected level of well-being than male children. For the relative scarcity of males would give them numerous advantages, reproductive and otherwise, that would compensate for the likely absence of a few years of additional life in old age. Hence, potential parents could consistently be guided by the reason to have the best-off child without that leading to an all-female population or to human extinction. The situation would not, of course, be ideal, for conditions in which males had these advantages would be likely to foster patterns of male dominance and polygamy, though perhaps with less violence because of the diminished competition for mates.

Casal is right, however, to claim that if the consistent pursuit of the best-off child would lead to human extinction, that would also be sufficient to undermine the force of Sparrow's *reductio*. For those who argue that there is a strong moral reason to have the best-off child do not claim that this reason is always over-riding. They accept, on the contrary, that it can be over-riden, certainly if universal adherence to it would lead to human extinction. The moral reason to prevent human extinction can, in my view, override virtually any other moral reason, including the most stringent general prohibitions and requirements. Regrettably, Sparrow does not share this view. 'The extinction of species,' he observes, 'may occur without any negative consequences for individuals.' Human extinction could thus come about in a way that 'would harm no one and it is therefore difficult to see why a consequentialist...should object to it'.² This comment is, however, difficult to understand in the context of recent work in normative ethical theory. It is the precise point of Derek Parfit's Non-Identity Problem that there are indefinitely many ways in which the consequences of action can be quite terrible without being worse for anyone who ever lives, and thus without harming anyone, in the sense relevant to morality.⁴ To explain why such consequences are bad, Parfit argues, one cannot appeal to considerations that are 'person-affecting' in the narrow sense (ie, concerned with what is better or worse for particular individuals), which are central to virtually all non-consequentialist ethical theories, but must instead appeal to either impersonal considerations or considerations that are person-affecting in the 'wide' sense. Both these latter appeals, however, lead in the direction of consequentialism.

There are various different types of moral reason to ensure the existence of future people. One is person-affecting in the narrow sense—namely, that many of the activities that make our own lives worth living would lose their meaning if they were not contributions to endeavours that will be continued by others who come after us. Other such reasons are that to cause a person to exist with a life worth living is *good for* that person (even though it would not be bad or worse for that person never to exist), and that it is impersonally good for there to be people with lives worth living.

Sparrow thinks, however, that even if human extinction would be terribly bad, that is irrelevant to the procreative choices of individuals. This is because

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'any particular couple's reproductive decisions will have only an infinitesimal impact on society's gender ratios.' Hence, 'as a male child will have a shorter life expectancy regardless of social sex ratios, parents will be obligated [on the view of Savulescu and others] to select female children regardless of whether' their individual acts will together result in human extinction.² Sparrow is here acquiescing in a moralised form of the Prisoners' Dilemma: since each couple's moral reason to have the best-off child outweighs their moral reason not to make a tiny contribution to human extinction, morality thus requires them all to act in ways that will together be morally catastrophic. That cannot be right, for roughly the same general reason that it cannot be right that morality permits each person to act in ways that are significantly better for him or her while making only a negligible contribution to global warming, when the combined effects of people's acting in these ways will be catastrophic for all.

Sparrow's response to these and similar claims is that they are "firmly in a tradition of eugenic thought that argues that we should settle the question of 'what sort of people should there be' by reference to what would maximise social welfare".² Yet, as this quotation acknowledges, eugenics is concerned with what *sort* of people there should be. The claim that there are over-riding moral reasons to prevent human extinction does not favour one *type* of person over another; rather, it favours there being some people rather than none. One can accept that it is good that there be some people rather than none without being committed to any view that could properly be called eugenic.

Suppose, implausibly, that whatever the ratio is between the sexes, female children would, on average, have better lives than male children. Even if that were true, I (and presumably Savulescu and many others) would claim that many potential parents ought to have a male child rather than a female child, for only if they do could human extinction be avoided. According to Sparrow, this is to endorse 'the idea that the quality of life of some individuals should be sacrificed for the sake of the welfare of others. This is problematic, to say the least'.² It does not, however, seem particularly problematic to me, at least in general. Sacrificing the quality of life of some for the welfare of others is what we do when, for example, we have a policy of progressive taxation that redistributes wealth from the rich to

the poor. But perhaps Sparrow's assumption is that cases involving causing people to exist are relevantly different. For the example he gives to support his view is of this sort.

Imagine...that the birth of a certain number of persons with lives 'barely worth living' would greatly increase total welfare in a society and consequently would even increase average utility. One way this might turn out to be the case was if the population of individuals born with higher welfare gained great pleasure from their superior circumstances or—more charitably—an increased appreciation of the good things in life as a result of occasionally having the thought 'there but for the grace of God go I'.²

Sparrow's judgment is that 'a policy of bringing such people into existence to improve the welfare of 'society' is eugenic social engineering in its most repugnant form'.² Again, however, to call such a policy eugenic seems a mistake, as it does not involve valuing any *type* of person over another. Still, the policy may be repugnant even if it is not eugenic. Hence Casal's two comments about the example: 'First, the avoidable creation of lives barely worth living is itself abhorrent regardless of its motivation. Second, the motivation is morally repugnant and too trivial to bear on such a momentous decision'.³

Neither of these claims, however, explains why it would be bad, and wrong, to cause the people with lives barely worth living to exist in Sparrow's example. It is not abhorrent in itself to cause people to exist with lives barely worth living. Suppose the only alternatives were immediate human extinction and the existence for an indefinite period of people whose lives would be barely worth living. These people's lives might contain much of what makes life worth living: love, pleasure, accomplishment, aesthetic experience and so on. If so, they would also contain much suffering. But the suffering would, by hypothesis, be outweighed by the good aspects of their lives. I think it would be not only not abhorrent to cause these people to exist but better—indeed, incalculably better—than allowing human extinction to occur.

But there are philosophers who disagree. Some have argued that, for the existence of a person to be good in itself, it is not sufficient that the person's life be worth living, or above the neutral level. It must also be at or above some higher point—the *critical level*—on the scale that measures well-being. Some claim that lives

that are worth living but below the critical level are in themselves neither good nor bad (though they are *good for* those who have them, which I take to be equivalent to their being worth living). Such lives neither add to nor subtract from the value of the world. Other philosophers, however, claim that the existence of such people is in itself *bad*. Because Casal says that to cause people to exist whose lives would be barely worth living is abhorrent, I assume that she is among the latter group of philosophers, though she may think that the critical level is quite close to the neutral level. If this is right, her view is untenable, for, as Gustaf Arrhenius has ingeniously demonstrated, it has the following implication. Suppose we must choose one of two policies. The first would, as a side effect, cause 100 people to exist with lives well worth living, and also cause a much larger number of people to exist whose lives would be worth living but below the critical level. The second policy would, as a side effect, cause 100 people to exist whose lives would be at some finite level below the point at which life ceases to be worth living. Otherwise the two policies would be equivalent in their effects. According to the view that lives that are worth living but below the critical level are in themselves bad, so that it is abhorrent to create them, it would be better to choose the second policy, provided that the number of people the first policy would cause to exist with lives below the critical level were sufficiently large. For the combined badness of some number of such lives must outweigh the difference between 100 lives that are well worth living, and 100 lives that are below the level at which life ceases to be worth living.¹ This implication is clearly unacceptable.

Casal's second point—that the motive in Sparrow's example for causing people to exist with lives barely worth living is a bad one—is plausible but insufficient to explain why causing these people to exist would be wrong. One's motive in doing some charitable act might be only to experience a sense of superiority over the object of one's charity but that would not make the act wrong. If it is wrong, in Sparrow's example, to cause people to exist with lives barely worth living, that is because there is the alternative of causing different, better-off people to exist instead. This is the lesson of the Non-Identity Problem.⁴

¹How we can avoid the Repugnant Conclusion. Derek Parfit's unpublished lecture. Available on request from the author.

This claim requires further elucidation. Sparrow stipulates that in his example, causing people to exist whose lives would be barely worth living would increase the average welfare. But this is ambiguous. Presumably, he means that it would increase the average level of well-being relative to what it was before the new people were caused to exist. This is highly implausible. For it to be true, the existence of each new person would have to produce a significant increase in well-being for a large number of people, and neither of the reasons Sparrow gives to explain why pre-existing people would benefit from the existence of the new people could account for this. But Sparrow's stipulation is not only implausible; it is also irrelevant. For the relevant comparison is not between the average well-being before and after the addition of the new people. It is, instead, the comparison between the average well-being after the new people had been caused to exist and the average levels of well-being that would obtain if alternative possible courses of action were followed instead, including courses of action that would cause different, better-off people to exist. If the existing people have a choice between benefiting themselves by causing people to exist with lives barely worth living and causing different and much better-off people to exist, it is highly likely that the second choice would produce a higher average level of well-being, even if it would not benefit the existing people in any way. If so, it could be worse, and wrong, to cause the less well-off people to exist rather than the better-off people, even though causing the less well-off people to exist would not be bad for them and would be better for pre-existing people. The difference in well-being between the two groups of possible people would outweigh the forgoing of the benefit to the pre-existing people. This assumes, of course, that there is a moral reason to cause better-off people to exist rather than less well-off people. But I think, and many others agree, that that is what Parfit's arguments about the Non-Identity Problem have shown.⁵

Suppose, however, that I have misinterpreted Sparrow and that what he means when he stipulates that causing the people with lives barely worth living to exist would increase average welfare is that it would increase the average by more than any alternative involving the creation of different, better-off people. In that case, the explanation of why it might still be wrong to cause the worse-off people to exist rather than the better-off people would be that doing so would create or

increase inequality, not that causing people to exist with lives barely worth living is bad in itself.

MAKING MALES MORE LIKE FEMALES

For these reasons, and others that Casal gives, I think she is right that Savulescu's claim about the reason to have the best-off child survives Sparrow's critique, as do the arguments for genetic enhancement that might build on it. But, as I mentioned, although she argues that Sparrow's claims about the selection of female children fail, she goes on to argue that there is a better case for female selection, though what the considerations that seem initially to favour female selection ultimately support is instead the genetic modification of human males in ways that would diminish the morally undesirable ways in which their characters normally or typically differ from those of women. She argues, for example, that it would be good if human males could be genetically modified to be less disposed to violence, aggression and competition, and more disposed to be cooperative and compassionate instead.

A few years ago I wrote a piece for the *New York Times* philosophy blog, *The Stone*, in which I argued that if the suffering of animals is bad when we cause it, so that we have a reason not to cause it, it must also be bad when it is caused by other animals, so that we also have a reason, when possible, to prevent animals from causing suffering in other animals. I then suggested that this claim could support future efforts to reduce or eliminate predation in the wild, provided that that could be done without causing overpopulation among herbivores, which would arguably increase animal suffering because herbivores would then die slowly from starvation and disease rather than quickly in the jaws of a predator.⁶ I discussed two ways of reducing or eliminating predation that correspond to the two ways of reducing or eliminating male characteristics considered by Casal: the selective extinction of carnivorous species and the genetic modification of carnivorous and omnivorous species.

This article was received with almost universal indignation and derision. Commentators on the website had various objections, some of which had been anticipated and pre-emptively rebutted in the article, which a surprising number of the commentators apparently had not bothered to read. Among the reasonable objections was that the elimination or genetic rendering innocuous of such magnificently savage and ferocious beasts as lions and tigers would be a very great loss, not only in itself but also in natural diversity. But if

the genetic conversion of lions into timid vegetarians that would 'eat straw like the ox' (Isaiah 11:7) would involve a great loss, how much greater would be the loss if characteristic traits in human males such as strength, physical daring and courage, and competitiveness were to be universally softened through genetic modification. 'Emasculation' is, after all, pejorative.

Many people's intuitive worries about human enhancement are, at bottom, concerns about the means rather than the ends. If it were discovered that through certain forms of arduous individual effort, not involving any pharmacological or genetic intervention, human beings could increase their intelligence substantially, few would find it morally objectionable if some individuals were to undertake the necessary efforts and succeed. Yet many or most of those who would not object to the enhancement of intelligence through individual effort do object to the enhancement of intelligence through genetic means. But the intuitive concern that I will describe about the genetic weakening of certain characteristically male psychological traits is different. It is a doubt about the end. The concern is that making males more like females in these respects would not be an enhancement but a mutilation.

There are three ways in which the weakening of certain male psychological traits might constitute a loss or harm: one intrinsic, one instrumental, and one impersonal. Sparrow attempts to provide a basis for the view that there would be an intrinsic loss or harm when he claims that the 'fact that *Homo sapiens* is a sexually dimorphic species means that attempts to evaluate whether a given individual is in a harmed condition will sometimes require making reference to their sex—and therefore to the normal capacities of that sex'⁷ and what count as normal capacities for males, he says, may depend on 'a suitably idealised account of proper species-functioning'.² According to such a view, if human males were genetically modified to become more like females in certain respects, this would involve an intrinsic loss, or be intrinsically harmful, to the modified males themselves, for they would lack, or have only anaemic versions of, psychological traits or capacities that are constitutive of the proper norm for males. (This is not to say that modified males would be worse off than *they* would otherwise have been. Because of the Non-Identity Problem, that is not true. But according to Sparrow's view, they would be worse off, other things being equal, than different males who had not been modified would have been.)

I have elsewhere argued at considerable length against the idea that the good of an individual is determined even in part by the norms of the biological species to which that individual belongs, and I will not rehearse my arguments here, though what I say there applies equally to the biological norms for sexes.⁸ Perhaps it will suffice here to say that, whatever may be true of the harms or benefits of having or lacking certain physical capacities, such as the capacity for pregnancy (Sparrow's favoured example), there are no virtues of character that are appropriate for members of only one sex. If it is good for a man to be disposed to be daring and courageous in risking physical harm, it can be equally good for a woman to be that way. And if it is good for a woman to be empathetic, nurturing and averse to violence, it can be equally good for a man. It may well be that these latter, characteristically female virtues are not fully combinable in one person with the characteristically male 'warrior virtues.' But the best account of virtue is pluralist and there is no reason to suppose that either Joan of Arc or Mohandas Gandhi was an intrinsically defective member of her or his sex.

The genetic weakening of various characteristically male psychological dispositions might also be instrumentally harmful, in that it could result in social loss. To the extent that traits, such as competitiveness, assertiveness and insensitivity to others have been instrumental in motivating and enabling certain men to act obsessively and relentlessly in the pursuit of aims that have greatly benefited human beings generally, the weakening of these traits could result in diminished economic, scientific, artistic and other forms of productivity. Casal's suggestion that these same traits could be somewhat strengthened in women, as in her hypothetical society of *Equalia*, might be one way to mitigate this form of loss. But as a pluralist about virtue with perhaps a stronger conviction of the superior nature of certain characteristic female virtues in their purest forms, I think the better response is just to concede that genetic modification of males might result in social loss as a result of diminished ambition and initiative, but to argue that such loss would be substantially outweighed by a correlative reduction in rape, war and other forms of violence and domination.

The third form of loss seems to me more serious. It is not the loss to individual males or to human productivity or advancement but the loss of the impersonal value of the precise masculine traits that Casal contends are causally implicated in a great deal of the world's violence, crime and war. The

concern here is for the absence from the world of a certain human type: the adventurer, warrior, hero, or Nietzschean *Übermensch*, exemplified in literature by Achilles and in history by Julius Caesar, Beethoven and, despite his puny stature, T E Lawrence, among many others. Just as the extinction of the tiger, or its genetic transformation into a placid herbivore, would involve the loss of a majestic form of animal organism, so the genetic emasculation of the dominant male would involve the loss of an impersonally valuable human type.

Most people seem to admire hyper-masculine men, those who are large, physically powerful, domineering, bold and daring, adept at fighting, and stormy in temperament. Where would military histories, Hollywood movies, television sports shows, and comic books be without them? Other men tend to admire and emulate them and women are genetically disposed to be attracted to them because of their manifest ability to protect their offspring. Yet perhaps people's tendency to idolise such men is atavistic and largely irrational. People experience a thrill of admiration when they watch some heavily muscled Hollywood Adonis bludgeon and slaughter the villains who have wronged him, but ought we to endorse this response as fitting or appropriate? Perhaps we should instead feel ashamed and strive to transcend it. I know some people, including some men, who seem to lack the retributive emotions altogether. Although I have powerful retributive intuitions and impulses, I find it impossible to regard these people as deficient, as lacking an emotional response that is keyed to an important element of moral reality. Although their temperament is alien to my own and to those of most other people, I tend to regard them as higher or more evolved morally than the rest of us.

Still, I think it should be conceded that there would be some impersonal loss to the world, and not just in terms of the impersonal value of diversity, if there were to cease to be men who exemplify the highest forms of the martial virtues. So, again, what I think should be said is that, whether or not people currently overvalue these characteristically male traits, the loss consequent upon their attenuation through genetic modification would be amply compensated for by the correlative reduction in violence and aggression in human relations.

It may help to imagine the prospect of a rapidly spreading genetic mutation that would have the effect of increasing the size and strength, and substantially intensifying the aggressiveness and competitiveness, of those men who had it. These men might be

uniquely magnificent animals, but if their presence would predictably lead to an increase in conflict and violence, I think it would be tragic, on balance, if the mutation were to occur. Those who agree with this assessment might then consider whether their objection to genetically attenuating the same traits in their current forms is best explained, not by the claim that the current balance between valuable male traits and levels of violence is optimal, but by status quo bias in favour of the current configuration of male attributes.⁹

Sparrow, of course, claims that genetically modifying males as a means of reducing violence and conflict is eugenic and involves sacrificing some for the well-being of others. I have replied to these claims but it is worth mentioning, in conclusion, that modified males might be better off, at least in one respect, than many of the unmodified males they might replace. This is because there is a dimension of the good for individuals that is concerned with being a morally good person. Suppose that one's child must choose, on her own, whether to act in a way that would be morally wrong but would prevent a significant reduction in her well-being. It is entirely comprehensible for one to hope, *for her own sake*, that she will refrain from acting wrongly, even at the cost of her own well-being. This is because being a good person is good *for her*. To the extent that genetically modified males with attenuated dispositions to violence and aggression would be less likely to engage in wrongdoing and wrongful violence, their lives would to that extent be better, and better *for them*, than the lives of their unmodified counterparts who *would* commit acts of these sorts.

Here I make the controversial assumption that being morally good is a dimension of the good for a person that is distinct from well-being. I do this to make it clearer how morally admirable acts involving apparent self-sacrifice can be genuinely self-sacrificial. Suppose that being morally good were just one among many elements of well-being. In that case, if one were right to want for one's daughter's own sake that she not act wrongly even to avoid some serious personal loss or harm, it would be difficult to see how her refraining from acting wrongly would involve a sacrifice. For her acting wrongly would, by hypothesis, decrease her overall well-being.

One may respond to this by observing that a parallel problem arises even if being morally good is a dimension of the personal good that is distinct from well-being. For one's daughter's being good by refraining from doing wrong is still, again

by hypothesis, better *for her* overall even though it would lower her well-being. So, again, there is no real self-sacrifice.

I accept this objection. But by distinguishing moral goodness as a dimension of what is good for a person that is separate from well-being, we are enabled at least to explain how acts such as one's daughter's refusing to engage in wrongdoing can involve a sacrifice of well-being. We might also stipulate that what has traditionally been called self-interest is concerned solely with well-being, not with the dimension of the personal good concerned with moral goodness. That way, we could say of the daughter that she acts against her own self-interest in refusing to do wrong. All this seems consistent with both moral and linguistic intuition.

Being good does not, of course, always outweigh well-being. There are obvious instances in which doing what is morally good is outweighed by the sacrifice in well-being, so that being morally good would be worse for the person overall. For example, one would not wish for one's daughter's own sake that she sacrifice her life to save the lives of two others.

There seems, indeed, to be an asymmetry between doing wrong and acting supererogatorily, in that the former, in general, does more to diminish a person's good than the latter does to augment it. If so, this would partially explain why the diminished tendency of genetically modified males to engage in wrongdoing would not be fully offset by their

correlatively diminished tendency to engage in heroic rescues.

Nothing I have said is meant to show that any particular modified male would be likely to be better off, all things considered, than a different unmodified male. In fact, the contrary may be true. Suppose that most parents, influenced perhaps by Savulescu's view, had chosen to have female children. In these conditions, as I noted earlier, potential parents might reasonably believe that they would be more likely to have the best-off possible child if that child were to be an unmodified male, even if a modified male would have a longer life expectancy. This would be true whether other males were mostly modified or mostly unmodified. If most other males were modified, an unmodified male would have various advantages over them, just as powerful males have had over weaker males in the past. And if most other males were unmodified, a modified male would suffer many disadvantages, for the same reasons. Thus, to have a modified male child might not be to have the expectedly best-off child that potential parents could have, even if a modified male could be expected to live longer and be less likely to engage in violent wrongdoing than a different, unmodified male child. But it still might be true that they ought to have such a child because this would be the best contribution they could make to the evolution of a more peaceful world. And this, as Casal recognises, is a weighty moral reason.

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