

Human Enhancement and Sexual Dimorphism

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Abstract:

I argue that the existence of sexual dimorphism poses a profound challenge to those philosophers who wish to deny the moral significance of the idea of “normal human capacities” in debates about the ethics of human enhancement. The biological sex of a child will make a much greater difference to their life prospects than many of the genetic variations that the philosophical and bioethical literature has previously been concerned with. It seems, then, that bioethicists should have something to say about the choice between a male and a female embryo. Either, (1) parents have reason to choose boys over girls; (2) parents have reason to choose girls over boys; or, (3) parents have neither reason to choose girls over boys nor reason to choose boys over girls. Embracing either of the first two alternatives has strongly counterintuitive—and arguably morally repugnant—consequences. To motivate the third option we must either make reference to the idea of “normal human capacities” or argue that parents should consider the interests of society when thinking about what sort of children they should bring into the world—an implication that should be extremely controversial in debates about the “new eugenics”. I conclude, then, that the idea of “normal human capacities” is properly crucial to reasoning about the ethics of shaping future persons.

Keywords

Human enhancement; ethics; health; sex; sex selection; preimplantation genetic diagnosis (PGD); therapy/enhancement distinction.

Human Enhancement and Sexual Dimorphism

The normative significance of the idea of “normal human capacities” for the ethics of shaping future persons has come under sustained philosophical attack over the past decade. A number of influential authors now hold that when it comes to making decisions about what sort of people to bring into the world we should pay little attention to what is normal. Thus, Julian Savulescu has argued that we should use preimplantation genetic diagnosis to try to bring “the best child possible” into the world, while John Harris has argued that human enhancement is a moral imperative.¹

In this paper I will argue that the existence of sexual dimorphism poses a profound challenge to those philosophers who wish to deny the moral significance of being “normal”.² The biological sex of a child will make a much greater difference to their life prospects than many of the genetic variations that the philosophical and bioethical literature has previously been

¹ Julian Savulescu and Guy Kahane, “The Moral Obligation to Create Children with the Best Chance of the Best Life,” *Bioethics* 23 (2009): 274–90; Julian Savulescu, “Procreative Beneficence: Reasons Not to Have Disabled Children,” in *The Sorting Society*, ed. Loane Skene and Janna Thomson (Cambridge, New York: Cambridge University Press, 2008); Julian Savulescu, “In defence of Procreative Beneficence,” *Journal of Medical Ethics* 33 (2007): 284–8; Julian Savulescu, “Genetic Interventions and the Ethics of Enhancement of Human Beings,” in *The Oxford Handbook on Bioethics*, ed. Bonnie Steinbock (Oxford: Oxford University Press, 2006), pp. 516–35; Julian Savulescu, “New Breeds of Humans: The Moral Obligation to Enhance,” *Ethics, Law and Moral Philosophy of Reproductive Biomedicine* 1 (2005): 36–9; and Julian Savulescu, “Procreative Beneficence: Why We Should Select The Best Children,” *Bioethics* 15 (2001): 413–26; John Harris, *Enhancing Evolution: The Ethical Case for Making Better People* (Princeton, N.J.: Princeton University Press, 2007); John Harris, *Clones, Genes and Immortality: Ethics and the Genetic Revolution* (Oxford: Oxford University Press, 1998); John Harris, “Is Gene Therapy a Form of Eugenics?” *Bioethics* 7 (1993): 178–87; Sarah Chan and John Harris, “In Support of Human Enhancement,” *Studies in Ethics, Law, and Technology* 1 (2007): Article 10.

² See below for a list of other philosophers who have denied that the idea of “normal human capacities” plays a crucial role in determining the ethics of shaping the capacities of future persons.

concerned with. Moreover, choosing the sex of children is something that we can do now using preimplantation genetic diagnosis or sperm sorting technology. It seems, then, that advocates of enhancement should have something to say about the choice between a male and a female embryo. Either...

1) parents have reason to choose boys over girls

or, 2) parents have reason to choose girls over boys

or, 3) parents have neither reason to choose girls over boys nor reason to choose boys over girls.

Embracing either of the first two alternatives has strongly counterintuitive—and arguably morally repugnant—consequences. However, I can see no way to motivate the third option without making reference to the idea of “normal human capacities” or arguing that parents should consider the interests of society when thinking about what sort of children they should bring into the world—an implication that should be extremely controversial in debates about the “new eugenics”.³ I conclude, then, that the idea of “normal human capacities” is properly crucial to reasoning about the ethics of shaping future persons.

³ David S. King, “Preimplantation genetic diagnosis and the ‘new’ eugenics,” *Journal of Medical Ethics* 25 (1999): 176–82; Philip Kitcher, *The Lives to Come: The Genetic Revolution and Human Possibilities* (New York: Simon and Schuster, 1996), pp. 191–203; Daniel Wikler, “Can We Learn From Eugenics?” *Journal of Medical Ethics* 25 (1999): 183–94.

Contemporary bioethics and the idea of “normal human capacities”

Our ever-increasing knowledge of the human genome, combined with the technologies of prenatal testing and preimplantation genetic diagnosis, holds out the promise of granting us significant power to make decisions about the genetics of our children. Some parents already use these technologies to try to avoid the birth of children with genes associated with various deleterious conditions. In the future, they may be able to use these—and perhaps other, more speculative—technologies to bring children into the world with genes that will make them “better than well”.⁴

This prospect has generated a vigorous debate about the ethics of setting out to shape the genetics of our children.⁵ At first sight, it might appear that while we should embrace the

⁴ Carl Elliott, *Better Than Well: American Medicine Meets the American Dream* (New York: W.W. Norton, 2003).

⁵ Nicholas Agar, *Liberal Eugenics: In Defence of Human Enhancement* (Oxford: Blackwell, 2004); Allen Buchanan, Dan W. Brock, Norman Daniels and Daniel Wikler, *From Chance to Choice* (Cambridge: Cambridge University Press, 2000); Francis Fukuyama, *Our Post-Human Future: Consequences of The Biotechnology Revolution* (London: Profile Books, 2003); Jonathan Glover, *Choosing Children: Genes, Disability, and Design* (Oxford: Oxford University Press, 2006); Ronald M. Green, *Babies by Design: The Ethics of Genetic Choice* (New Haven and London: Yale University Press, 2007); Jurgen Habermas, *The Future of Human Nature* (Cambridge: Polity Press, 2003); Harris, *Enhancing Evolution: The Ethical Case for Making Better People* (Princeton, N.J.: Princeton University Press, 2007); Eric Parens and Adrienne Asch, eds, *Prenatal Testing and Disability Rights* (Washington, D.C.: Georgetown University Press, 2000); President’s Council on Bioethics, *Beyond Therapy: Biotechnology and the Pursuit of Happiness* (Washington, D.C.: The President’s Council on Bioethics, 2003); Michael J. Sandel, *The Case against Perfection: Ethics in the Age of Genetic Engineering* (Cambridge, Mass. and London: Harvard University Press, 2007); Lee M. Silver, *Remaking Eden: Cloning, Genetic Engineering and the Future of Human Kind* (London: Phoenix, 1999); Gregory Stock,

therapeutic use of these technologies to restore normal human functioning, their use to *enhance* children by providing them with better-than-normal capacities is much more problematic. However, the difference between therapy and enhancement turns out to be very hard to define and the idea that this distinction marks the boundary between permissible and impermissible interventions is even harder to defend.⁶ Many medical technologies that we have embraced already, such as vaccination, cosmetic surgery, and chemical contraception provide benefits to people beyond those available to “normal” human beings. In so far as our reason for providing medical therapy to individuals is to improve their well-being, this concern also seems to motivate enhancement.⁷ These and other, related, considerations have led a number of authorities to conclude that we should not restrict our use of technologies of genetic selection to ensuring that future individuals enjoy normal human capacities by preventing disease or disabling conditions but rather should embrace its use to make people “better”.

For instance, here is John Harris in *Enhancing Evolution*:

Redesigning Humans: Choosing Our Children’s Genes (London Profile Books, 2003); Julian Savulescu and Nick Bostrom, eds, *Human Enhancement* (Oxford: Oxford University Press, 2009).

⁶ Nick Bostrom and Rebecca Roache, “Ethical Issues in Human Enhancement,” in *New Waves in Applied Ethics*, ed. T. S. Petersen, J. Ryeberg and C. Wolf (Hampshire: Palgrave Macmillan, 2008), pp. 120–52; President’s Council on Bioethics, *Beyond Therapy: Biotechnology and the Pursuit of Happiness* (Washington, D.C.: The President’s Council on Bioethics, 2003), pp. 14–16; Chan and Harris “In Support of Human Enhancement,” *Studies in Ethics, Law, and Technology* 1 (2007): Article 10.

⁷ Glover, *Choosing Children: Genes, Disability, and Design* (Oxford: Oxford University Press, 2006), p. 36; Harris, *Enhancing Evolution: The Ethical Case for Making Better People* (Princeton, N.J.: Princeton University Press, 2007); Nick Bostrom, “Human Genetic Enhancements: A Transhumanist Perspective”, *The Journal of Value Inquiry* 37 (2003): 493–506.

“This book defends human enhancement and argues that not only are enhancements permissible but that in some cases there is a positive moral duty to enhance” (p. 3).

... “enhancements are not plausibly defined relative to normality, to normal species functioning, nor to species typical functioning...” (p. 36).

“The overwhelming moral imperative for both therapy and enhancement is to prevent harm and confer benefit. Bathed in that moral light, it is unimportant whether the protection or benefit conferred is classified as enhancement or improvement, protection or therapy.” (p. 50).⁸

Here are Savulescu and Kahane:

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

⁸ Harris, *Enhancing Evolution: The Ethical Case for Making Better People* (Princeton, N.J.: Princeton University Press, 2007).

“What matters is not whether future children meet certain biological or statistical norms, but what level of well-being they can be expected to have” (p. 274).⁹

Other writers who have denied that the idea of “normal human capacities” plays a crucial role in determining the ethics of shaping the capacities of future persons include Nicholas Agar (2004), Nick Bostrom (2003; [with Rebecca Roache] 2008), Philip Kitcher (1996), Ronald Green (2007), David Resnik (2000), Lee Silver (1999), and Gregory Stock (2003).¹⁰

Reasons for choosing children

While this paper engages with recent work on the ethics of preimplantation genetic diagnosis and the ethics of human enhancement, it does not attempt to evaluate the case for human enhancement or come to any all-things-considered conclusion about the ethics of human enhancement. In particular, it is not my purpose here to contest the idea that we may have reasons pertaining to the sort of people there should be. Instead, in what follows, I will explore these reasons by means of a number of claims about the life prospects of different sorts of children. For convenience’s sake, I will sometimes express these in claims of the

⁹ Savulescu and Kahane, “The Moral Obligation to Create Children with the Best Chance of the Best Life,” *Bioethics* 23 (2009): 274–90.

¹⁰ Perhaps the most systematic investigation of the ethics of genetic selection, Buchanan et al., *From Chance to Choice* (Cambridge: Cambridge University Press, 2000) denies that the idea of “normal human capacities” delineates the boundary between permissible and impermissible genetic interventions but allows that it may serve a role in public deliberation regarding the limits of the obligation to provide genetic interventions (pp. 115–54. See also, p. 321). In so far as my argument is concerned with the question of whether or not parents have reasons—rather than obligations—to choose children of one sex or the other, it will also constitute a challenge to Buchanan et al.’s account.

form “it is better to be born an X rather than a Y”. Such “cross life comparisons” are controversial because of the temptation to interpret them as suggesting that people have an interest in the circumstances into which they are born. This would be a mistake because, of course, it is hard to make sense of the idea that individuals exist before they come into the world or that an individual would be better off if another person existed in their place.¹¹ Nevertheless, we *do* need to be able to make comparisons between the prospects of different children that might be brought into the world if we are to account for widely-held strong intuitions that parents *should* act so as to avoid bringing children with impairments into the world where it is not too onerous to do so. As Savulescu and Kahane, and Harris argue, if a woman could avoid becoming pregnant with a child who would be born with severe impairments by deferring conception until a brief illness has passed, it seems clear that she should do so.¹² This intuition relies on a comparison between the prospects of a child born with severe impairments and the prospects of an ordinary child. My claims about “what is better” should be understood as shorthand for comparisons of this sort. Importantly, while the proper interpretation of such comparisons remains controversial, the case for human enhancement presumes that, at least in some cases, they can be made and that they provide us with reasons to act in relation to choices about what sorts of children to bring into the world.¹³

¹¹ Derek Parfit, *Reasons and Persons* (Oxford: Clarendon Press, 1984).

¹² Savulescu and Kahane, “The Moral Obligation to Create Children with the Best Chance of the Best Life,” *Bioethics* 23 (2009): p. 276; Harris, *Enhancing Evolution: The Ethical Case for Making Better People* (Princeton, N.J.: Princeton University Press, 2007), p. 90.

¹³ The “non-person affecting” nature of decisions about what sort of people to bring into the world means that we cannot straightforwardly hold that such choices harm or benefit the person who is born as a result (Dan

Of course, parents may have many different sorts of reasons for preferring one sort of child to another. They may simply have a psychological or aesthetic preference for a certain sort of child or may have instrumental reasons for preferring, for instance, a boy rather than a girl. Whether or not it is morally permissible for parents to act on the full range of reasons they might have for preferring a certain sort of child is an important question in the larger debate about the ethics of technologies of genetic selection. However, not all of these reasons are relevant to the debate about the ethics of human enhancement. This debate concerns the ethics of interventions designed to improve the lives of those who are “enhanced”. In my discussion below, then, I will—as much as is possible—restrict my attention to the reasons that parents may have arising out of a concern for the welfare of their future child. Again, in doing so I am following in the footsteps of other participants in the debate about the ethics of enhancement.¹⁴ As I will discuss further below, the idea that our foremost consideration in

Brock, “The Non Identity Problem and Genetic Harms – the Case of Wrongful Handicaps,” *Bioethics* 9.3/4 (1995):269-275; Parfit, *Reasons and Persons* [Oxford: Clarendon Press, 1984]), which in turn problematises the idea that we are obligated to act on the reasons we have pertaining to the welfare of future persons. The precise force of these reasons is, I think, one of the key questions—yet to be resolved—in the debate about human enhancement (Savulescu and Kahane, “The Moral Obligation to Create Children with the Best Chance of the Best Life,” *Bioethics* 23 (2009): 274–90; Robert Sparrow, “Procreative Beneficence, Obligation, and Eugenics,” *Genomics, Society, and Policy* 3 (2007): 43–59. However, in this context I will be content to assume—as do most others in the literature—that we do have such reasons, with my object being to show that the existence of sexual dimorphism is an embarrassment for any account that acknowledges these, regardless of their force.

¹⁴ Agar, *Liberal Eugenics: In Defence of Human Enhancement* (Oxford: Blackwell, 2004); Bostrom and Roache, “Ethical Issues in Human Enhancement,” in *New Waves in Applied Ethics*, ed. T. S. Petersen, J. Ryberg and C. Wolf (Hampshire: Palgrave Macmillan, 2008), p. 149; Glover, *Choosing Children: Genes, Disability, and Design* (Oxford: Oxford University Press, 2006), pp. 36, 42–3; Green, *Babies by Design: The Ethics of Genetic Choice* (New Haven and London: Yale University Press, 2007), p. 216; Harris, *Enhancing Evolution: The Ethical Case for Making Better People* (Princeton, N.J.: Princeton University Press, 2007), p. 145; Kitcher, *The Lives to Come: The Genetic Revolution and Human Possibilities* (New York: Simon and Schuster, 1996), pp.

thinking about the ethics of genetic manipulations should be “what would be best for the child” is crucial to the argument that the contemporary interest in genetic manipulation of human beings is importantly different to the “old” eugenics of the early 20th century.

The dilemma: Sex selection for “human enhancement”?

Regardless of what we might prefer, the biological sex of a child has significant implications for their life prospects. Most obviously, there are important differences in male and female reproductive biology such that men and women inevitably have very different experiences in relation to reproduction and different reproductive options, which in turn exercise a significant influence over the typical life trajectories of men and women. Differences in reproductive biology also arguably structure the meaning of other important experiences, such as sex, in human life. There are also other biological differences between men and women. They have different physiologies, different metabolisms, and different susceptibilities to disease and illness. Despite the best efforts of feminists and other egalitarians, it remains the case that every society around the world today is structured by gender in ways that impact significantly on the prospects of male and female children at birth. Sex differences affect both the range of life options available to individuals and their chances of success in pursuit of these options. The scale of these effects is reflected in statistics regarding the number of women in senior positions in government and corporations, the gap in earnings between men and women, *etc.*¹⁵ As I will discuss further below, social and

216, 285–307; Savulescu and Kahane, “The Moral Obligation to Create Children with the Best Chance of the Best Life,” *Bioethics* 23 (2009): 275.

¹⁵ Ricardo Hausmann, Laura D. Tyson and Saadia Zahidi, *The Global Gender Gap Report 2009* (Geneva: World Economic Forum, 2009).

biological factors interact in such a way that men and women also have markedly different life expectancies.

All-in-all, then, the presence or absence of a Y chromosome will have a much greater impact on the future of a child's life than many of the genetic variations that bioethicists typically consider in discussions of the ethics of human enhancement. What is more, it is much, *much*, easier to shape the chromosomal sex of children than it is to influence any other aspect of their genetics. We already possess a number of relatively simple and effective technologies to determine sex, whereas most of the technologies that philosophers and bioethicists discuss in debates about human enhancement, such as reliable genetic tests for above-species-typical capabilities, gene therapy to produce super or extra-human capacities, or Gregory Stock's "artificial chromosomes" remain hypothetical.¹⁶

There are, in fact, many different ways that prospective parents may seek to influence the sex of their children. The most common method of sex selection at a global level is the termination of pregnancies involving the "unwanted" sex, after diagnosis of fetal sex using ultrasound. However, in order to avoid the need to consider the ethics of abortion, I am going to concentrate on technologies that determine the sex of the embryo before it implants in a woman's womb. Various "sperm sorting" technologies allow prospective parents to increase the chance of conceiving a child of the desired sex using artificial insemination.¹⁷ If couples are willing to undergo in vitro fertilisation, they may use preimplantation genetic diagnosis to

¹⁶ Stock, *Redesigning Humans: Choosing Our Children's Genes* (London: Profile Books, 2003).

¹⁷ Ethics Committee of the American Society for Reproductive Medicine, "Preconception Gender Selection for Nonmedical Reasons," *Fertility and Sterility* 75 (2001): 861–4.

determine the sex of each embryo and then only transfer embryos of the desired sex into the woman's womb.¹⁸

What, therefore, should Harris, Savulescu, and other advocates of human enhancement say about the reasons bearing on the individual decisions of couples who are setting out to have children, once parents become aware of the possibility of using preconception sex selection technologies to determine the sex of their offspring? As I noted above, it seems that advocates of human enhancement may say one of three things, which together exhaust the field of logical possibility:

- 1) parents have reason to choose boys, because it is better to be born male
- 2) parents have reason to choose girls, because it is better to be born female
- 3) parents have neither reason to choose girls over boys nor reason to choose boys over girls.

I will examine each of these options in turn. In relation to each option I will make the best arguments I can for it and then evaluate these arguments and draw out their implications. As it is impossible to reconcile all of these positions, every reader will find something they disagree with, perhaps strongly, in the discussion of one or the other of the options below. Let me emphasise that my goal here is *not* to argue for any of the alternatives below in

¹⁸ It is worth noting that it is already the case that parents may be offered the option of using PGD for sex selection on "medical grounds" where there is a family history of a sex-linked genetic disorder. One way of understanding the argument that follows is as claiming that without the concept of the biologically normal we cannot resist the conclusion that the presence (or absence) of a Y-chromosome should itself count as a "sex linked" disorder.

particular—although, inevitably, I will indicate in passing which I find most plausible. Rather, my aim is to show how each and every one of them has unexpected implications. I would therefore beg your indulgence and request that you refrain from objecting too strenuously the moment you encounter an argument for one or other of the alternatives with which you disagree. Instead, I would ask you to consider which of the options you would ultimately choose and then to turn your critical attention to the logic of the larger argument of the paper as a whole.

Option 1: Parents have reason to choose boys

That it is better to be born male rather than female is, of course, the traditional answer of both culture *and* medicine when it comes to the question of the relative merits of each sex. In most cultures, for most of history, parents have prayed for the birth of sons rather than daughters. Medical science has a long history of understanding the male form as the ideal human form and representing women as pathological deviations from this ideal.¹⁹ Even today, at a global level, sex selection technologies are overwhelmingly used to choose male children over female children.²⁰

No doubt, this historical preference for boys over girls has often been justified with reference to a number of false—or at least unverifiable, where religious—empirical claims. It may also

¹⁹ Barbara Ehrenreich and Deirdre English, *Complaints and Disorders: The Sexual Politics of Sickness*. 1st ed. (Old Westbury, N.Y.: Feminist Press, 1973); Thomas Laqueur, *Making Sex: Body and Gender from the Greeks to Freud* (Cambridge, Mass.: Harvard University Press, 1990), pp. 25–63; Londa Schiebinger, *Nature's Body: Gender in the Making of Modern Science* (New Brunswick, N.J.: Rutgers University Press, 2008).

²⁰ Frank Van Balen and Marcia C. Inhorn, “Son Preference, Sex Selection, and the ‘New’ New Reproductive Technologies,” *International Journal of Health Services* 33 (2003): 235–52.

both reflect and express a morally reprehensible misogyny that, in another context, would be worthy of further comment and investigation. Finally, it is undoubtedly the case that parents' preferences for male children often refer to their own interests rather than to those of the child. However, my purpose here is not to assess the history of sexism, medical or social, but rather to investigate how we should think about sex selection in the context of contemporary debates about human enhancement. In order to facilitate this I will here briefly offer a philosophical reconstruction of the best argument that might be made in favour of choosing boys over girls on the grounds of the impact of the biological sex of a child on his/her life prospects.

The strongest argument for thinking that it is better to be born a boy rather than a girl is obvious and derives from the impact of sexist social structures on the lives of individuals. While the existence of institutional sexism is regrettable, it is also an inescapable fact. There are myriad statistics that show that existing social institutions systematically privilege the interests of men over women with the result that male children have better chances of achieving positions of social power, higher expected incomes, receive various advantages in pursuit of their chosen goals, etc.²¹ Insofar, as we are concerned for the future well-being of our children, then, there is therefore a compelling argument for choosing boys over girls.

The obvious objection to this line of argument is to point out that these implications of sex for well-being are not a function of the child's biology but rather of the prevailing social institutions—and sexist institutions at that. If parents were to be influenced by the prevailing

²¹ Hausmann, Tyson, and Zahidi, *The Global Gender Gap Report 2009* (Geneva: World Economic Forum, 2009).

bigotry of their times, this would have all sorts of regrettable implications for what sorts of children would be born.²² Not only would parents need to select against female children, but in racist societies they would have reason to select in favour of children who could “pass” as members of the socially privileged racial group. This would appear to render the parents complicit in the injustices that produce the differences between the life prospects of the children of different social groups. It would also exacerbate and perpetuate these injustices.²³ It seems morally repugnant to suggest that parents should take account of the likely future social environment of their child when making decisions about what sort of children to bring into the world.

The extent to which parents should take the social context and consequences of their reproductive decisions into account when tallying up their reasons for preferring one sort of child rather than another is controversial.²⁴ Prevailing social institutions may often have a far greater impact on individuals’ well-being than other environmental variations, which suggests that they *should* factor into parents decision-making. However, if we allow them to

²² Leslie Cannold, “Reprogenetic Technologies: Balancing Parental Procreative Autonomy and Social Equity and Justice,” in *The Sorting Society*, ed. Loane Skene and Janna Thomson (Cambridge, New York: Cambridge University Press, 2008), pp. 69–84; Sparrow, “Procreative Beneficence, Obligation, and Eugenics,” *Genomics, Society, and Policy* 3 (2007): 43–59.

²³ Agar, *Liberal Eugenics: In Defence of Human Enhancement* (Oxford: Blackwell, 2004), pp. 148–57.

²⁴ Agar, *Liberal Eugenics: In Defence of Human Enhancement* (Oxford: Blackwell, 2004), pp. 148–57; Kitcher, *The Lives to Come: The Genetic Revolution and Human Possibilities* (New York: Simon and Schuster, 1996), pp. 191–219; Glover, *Choosing Children: Genes, Disability, and Design* (Oxford: Oxford University Press, 2006), pp. 76–81; Harris, *Enhancing Evolution: The Ethical Case for Making Better People* (Princeton, N.J.: Princeton University Press, 2007), pp. 28–9; Savulescu and Kahane, “The Moral Obligation to Create Children with the Best Chance of the Best Life,” *Bioethics* 23 (2009): 288; Sparrow, “Procreative Beneficence, Obligation, and Eugenics,” *Genomics, Society, and Policy* 3 (2007): 43–59.

do so, the aggregate effect of many couples acting on the basis of the same set of considerations is likely to be—at least—troubling and perhaps repugnant. Yet if we conclude that parents should consider what sort of social order would come about if everybody made the choices that they are contemplating, then we undercut a distinction between individual and social reproductive choice that is essential to the project of distinguishing the “new” (liberal) from the “old” (state sanctioned) eugenics: I will return to this matter below.

At this point, I simply want to observe that pointing to the aggregate consequences of many parents making similar decisions is far from a decisive objection to couples’ choosing a child that will benefit from local social privilege. Parents might reasonably point out that *their* decision will have only the most marginal effect on the eventual shape of their society. On the other hand, if they choose a child who will become a member of the less privileged social group, or if their child is born a member of this group as a result of their refraining from making a conscious choice, then this child will have significantly worse life prospects than if they had chosen a child who would benefit from the existing social institutions. Even if a couple agreed that the aggregate effects of everyone making a similar choice would be bad parents may nevertheless have strong reasons to make sure that *their* child is not disadvantaged by social institutions that are beyond their control.

The *social* advantages that accrue to male children therefore establish a strong case for choosing boys. Because, in fact—as we will see shortly—the strictly medical case for girls over boys is so strong, it is worth pausing to see if anything might be said in favour of being male on the basis of *biology*. On average, men tend to be taller and stronger than women, which may be an advantage in some circumstances. Men do not menstruate or get pregnant, both experiences that some women hold it would be preferable to avoid. More controversially, if one is willing to entertain the possibility of strong differences in “brain sex”, then it may be

that there are benefits to the individual associated with whatever set of cognitive capacities is thought to be characteristic of men.²⁵ Whatever set of purported “biological” advantages one associates with being born male, these must be balanced against the advantages accruing to women by virtue of their longer life expectancy and capacity to give birth, discussed below. Given a sufficiently optimistic account of distinctively male capacities, it is possible that this calculation will favour men.

Option 2: Parents have reason to choose girls

In earlier explorations of these issues, I argued directly for the conclusion that, in the absence of a normatively significant account of “normal human capacities”, widely accepted arguments about how we should choose what sorts of people there should be suggested that we were obligated to choose girl children.²⁶ In retrospect perhaps I should not have been so surprised when the largely male philosophical community that writes about the ethics of enhancement responded with hostility and by-and-large refused to seriously entertain this prospect. Even philosophers who seem to pride themselves on their willingness to follow an argument where it leads are apparently unwilling to follow it to the conclusion that theirs is not the superior sex.

For the current purposes, then, I have introduced the idea that it is better to be born a girl rather than a boy as an interesting argument to be considered rather than a conclusion.

Nevertheless, as we shall see, there are a number of important arguments used in

²⁵ Hannah Hoag, “Sex on the Brain,” *New Scientist* 199 (2008): 28–31.

²⁶ Robert Sparrow, “Should human beings have sex? Sexual Dimorphism and Human Enhancement,” *American Journal of Bioethics* 10 (2010): 3-12.

contemporary debates about the ethics of genetic selection that strongly suggest that we should choose to have girl children because they have better life-prospects.²⁷

The argument for choosing girls must begin by denying or discounting the argument for choosing boys on the grounds of the social advantages of being male, discussed above. While, to date, institutional sexism has almost always meant that male children have, on average, superior life prospects to female children, it is unclear how much longer this will remain the case—or even if it is still the case for children born into some societies today. Egalitarian social reforms inspired by feminists and the women’s movement have, in many places, significantly reduced gender inequality.²⁸ In the not-too-distant future, in some societies, it may turn out to be the case that the social environment offers genuinely equal opportunities to men and women. If we believe that we are close to—or have even arrived at—this point already then social factors will provide no grounds for choosing boys over girls.

This riposte to the alleged advantages to being born male is weak in so far as it relies on a controversial empirical premise. A second, more promising, response relies on the intuition, set out above, that disparities in expected welfare due to unjust social institutions should play no role in determining what sorts of children we should bring into the world. If parents make decisions based on the likely impact of sexism, racism, or other forms of morally pernicious discrimination on the life prospects of their children then this will result in selection in favour of children who will be members of privileged social groups. As suggested above, it might

²⁷ Robert Sparrow, “Better than men? Sex and the therapy/enhancement distinction,” *Kennedy Institute of Ethics Journal* 20 (2010): 115-144.

²⁸ Hausmann, Tyson and Zahidi, *The Global Gender Gap Report 2009* (Geneva: World Economic Forum, 2009), pp. 17–25.

therefore be argued that parents are obliged to discount any considerations arising from the existence of unjust social institutions.

If we are willing to deny or discount the social advantages of being born male then it is open to us to consider arguments for choosing girl children based on the biological advantages of being born a woman. These advantages consist in—at least—two things: a longer life expectancy; and, the capacity to become pregnant.

The argument for girl children on the basis of their longer life expectancy is relatively straightforward. I will first make the case on the basis of the capacity to become pregnant, as this argument is likely to be controversial, especially given the fact that men don't become pregnant was mentioned as an argument in favour of male children above.

Let me begin by observing that, once they have the social power to allow them to make choices about contraception, women do not have to become pregnant if they do not want to.²⁹ Moreover, women who don't wish to become pregnant may still become a genetic parent by donating gametes to another couple or by employing a surrogate mother. Pregnancy is therefore an option rather than a requirement for women. Moreover, pregnancy is an option that many people have held to be extremely valuable. Some women say that that the experience of pregnancy is an intense and worthwhile one and that the intimate bond they establish with a child that they have nurtured in their womb is uniquely rewarding.³⁰ Thus pregnancy is an experience that a person might desire over and above the experience of

²⁹ Hormonal manipulation will also allow women who wish to do so to avoid menstruation.

³⁰ Penny Simkin, Janet Whalley and Ann Keppler, *Pregnancy, Childbirth & the Newborn* (New York: Meadowbrook Press, 2001), p. xi.

becoming a social or genetic parent. Further evidence that this is the case is provided by the fact that some women continue to try to become pregnant by *in vitro* fertilisation even after they become aware that arranging to have their embryos gestated by another woman would allow them to become both a social and genetic parent. Pregnancy's role in the human life cycle also suggests that it is a far from trivial option. In debates about the ethics of reproductive technologies, philosophers have argued for the importance of "reproductive liberty"—being the freedom to make one's own decisions about reproductive matters—on the grounds that the central role that reproduction plays in human life means that it is especially wrong to constrain individuals' reproductive choices.³¹ I mention reproductive liberty primarily to demonstrate that it would be wrongheaded to dismiss having the option of pregnancy as trivial; a slightly more tendentious way to express the same point would be to say that the extent of "reproductive liberty" is greater for women than it is for men.³²

Of course, the value of the capacity to become pregnant must be set alongside the value of whatever options are held to be uniquely available to men. However, absent an implausibly strong set of claims about "brain sex", it seems likely that this calculation will favour women. In the absence of sexism and with a modicum of technology women can do (almost) everything that men do plus at least one more valuable and important thing. To employ a

³¹ Dan Brock, "Reproductive Freedom: Its Nature Bases and Limits," in *Health Care Ethics: Critical Issues for Health Professionals* (Gaithersburg: Aspen Publishers, 1994), pp. 47–9; Ronald Dworkin, *Life's Dominion: An Argument About Abortion, Euthanasia, And Individual Freedom* (New York: Knopf, 1993); John Robertson, *Children of Choice: Freedom and the New Reproductive Technologies* (Princeton: Princeton University Press, 1994), pp. 24–5.

³² For a discussion of the implications of the capacity to become pregnant for the extent of reproductive liberty, see Robert Sparrow, "Is it 'every man's right to have babies if he wants them'? Male pregnancy and the limits of reproductive liberty," *Kennedy Institute of Ethics Journal* 18 (2008): 275–299.

terminology that is widely used in debates about the ethics of choosing (and educating) children, girls have a significantly more “open future” than do boys.

The second argument for choosing girl children is that, once access to a certain basic level of health care during pregnancy and birth may be assumed, women have a significantly higher life expectancy than men. In the industrialised world, women live on average roughly 3 to 7 years longer than men.³³ Some of this difference is undoubtedly straightforwardly the result of social factors such as differences in women’s exposure to health risks at work due to the gendered division of labour that exists even in the most egalitarian of contemporary societies. To the extent to which the difference in life expectancy reflects the impact of unjust social institutions, the impact of this difference on the life prospects of the child may need to be discounted (or not) as per our response to the other implications of such injustices. However, while some of women’s longer life expectancy may be the result of social aspects of gender, biology also plays an important role here. There are differences in the physiologies and metabolisms of the sexes. Men and women also differ in their susceptibility to disease and in the extent to which various environmental influences on health affect them.³⁴ Thus, it seems likely that at least some of the difference in life expectancy between men and women reflects biological differences between the sexes that will be expressed across a wide range of environments. Even if we discount reasons arising as a result of unjust social institutions,

³³ World Health Organisation, *World Health Statistics 2009* (Geneva: World Health Organisation. 2009), Table 1.

³⁴ Institute of Medicine Committee on Understanding the Biology of Sex and Gender Differences, *Exploring the Biological Contributions to Human Health: Does Sex Matter?* ed. Theresa M. Wizemann and Mary-Lou Pardue (Washington, D.C.: National Academy Press, 2001).

then, women's longer life expectancy remains a strong reason to select in favour of girl children.

It might be objected that living 3–7 years longer is not a significant benefit, especially if we think of these years as being added on to the period of frail old age. Yet while it is perhaps reasonable to discount the value of each extra year of life past a certain age, it does not seem reasonable to hold that on average extra years have no—or negative—value.³⁵ Even at the end of their lives, people often still seek out medical treatment in order to continue living for another few years. Many medical programs are justified with reference to gains in life expectancy less than the difference between male and female life expectancy. If geneticists announced that they were reliably able to identify and select in favour of a gene that extended (male) longevity by this amount, this would be greeted with loud acclaim.

The longer life expectancy of women is therefore a strong *prima facie* argument for choosing to have female rather than male children.³⁶ Once more, though, we can better appreciate the force of the argument and its relationship to the larger debate about the ethics of genetic selection if we pause briefly to clarify how having a longer life expectancy affect the prospects of a child. All other things being equal, where two children have different life expectancies, the child with the longer life expectancy will have both a higher expected welfare and a more open future. Life expectancy contributes to expected welfare because the

³⁵ The World Health Organisation's comparisons of "healthy life expectancy at birth", which attempt to estimate how many years people might live in "good health", demonstrate that even on this measure, in most industrialised nations countries, women can expect to live about 2-4 years longer than men "in good health" (World Health Organisation, *World Health Statistics 2009* [Geneva: World Health Organisation, 2009], Table 1).

³⁶ Sparrow, "Better than men? Sex and the therapy/enhancement distinction," *Kennedy Institute of Ethics Journal* 20 (2010): 115-144.

longer someone lives the more opportunities they have to accumulate those goods—be they pleasurable experiences, satisfaction of preferences, or items on an “objective list”—that contribute to well-being.³⁷ Living longer also allows people to attempt and perhaps succeed in longer term projects, the success of which may also contribute to their well-being.³⁸ The extra opportunities afforded by a longer life also mean that individuals who can be expected to live longer have, all other things being equal, a more “open” future than individuals with a shorter life expectancy.³⁹ They have a greater capacity to shape their lives so as to realise their fundamental values because they have more opportunities to achieve their goals.

Both the expected welfare and then “openness of future” of children are widely recognised as being of crucial importance when it comes to how we should make decisions about what sorts of children to bring into the world.⁴⁰ If the impact of sexist social institutions can be

³⁷ James Griffin, *Well-Being: Its Meaning, Measurement, and Moral Importance* (Oxford: Clarendon Press, 1986).

³⁸ If one holds that a person’s well-being is a function of the average level per day or year of some good (s) during their life rather than of the total amount of the good(s) then the relationship between life expectancy and expected welfare is less straightforward. However, in so far as people who live longer have more opportunities to succeed in each of their projects and may also succeed in projects with longer durations, they may also experience a higher level of average welfare. For a recent discussion of the relationship between longevity and welfare, see Mark Walker, “Superlongevity and Utilitarianism,” *Australasian Journal of Philosophy* 85 (2007): 581–95.

³⁹ Joel Feinberg, “The Child’s Right to an Open Future,” in *Whose Child? Children’s Rights, Parental Authority, and State Power*, ed. William Aiken and Hugh LaFollette (Totowa, N.J.: Littlefield, Adams & Co, 1980), pp. 124–53.

⁴⁰ Agar, *Liberal Eugenics: In Defence of Human Enhancement* (Oxford: Blackwell, 2004); Bostrom and Roache, “Ethical Issues in Human Enhancement,” in *New Waves in Applied Ethics* (Hampshire: Palgrave Macmillan, 2008), pp. 120–152; Buchanan et al, *From Chance to Choice* (Cambridge: Cambridge University Press, 2000); Dena Davis, *Genetic Dilemmas: Reproductive Technology, Parental Choices, and Children’s Futures* (New York and London: Routledge, 2001); Feinberg, “The Child’s Right to an Open Future,” in *Whose Child?*

sufficiently mitigated or if it is agreed that we should discount the impact of injustice when making reproductive decisions then both of these considerations argue in favour of selecting female children over male children.

Option 3: Parents have neither reason to choose girls over boys nor reason to choose boys over girls

This third and final option is obviously the most politically palatable of the three and—at first sight at least—the most intuitively plausible. In recent years, it has become the mark of the enlightened individual (and culture) that they should deny that either sex is superior to the other. Surely, then, it could not be better to be born a girl or a boy? Rather, parents have no reason to choose either sex. However, as I noted at the outset, it is my contention in this paper that this claim turns out to be extremely hard to defend *without making reference to the idea of “normal human capacities”* or without requiring that parents should consider the interests of society over the interests of their child—an implication that, as I will argue further below, should be extremely controversial in debates about the “new eugenics”.

There are actually two different ways in which it might be true of two options that neither is better than the other. This might be the case where (a) the things being compared are equal according to the relevant measure or (b) where the comparison cannot be made or is inappropriate or should be resisted for some other reason.

Children’s Rights, Parental Authority, and State Power, ed. William Aiken and Hugh LaFollette, (Totowa, N.J.: Littlefield, Adams & Co., 1980), pp. 124–53; Glover, *Choosing Children: Genes, Disability, and Design* (Oxford: Oxford University Press, 2006); Parfit, *Reasons and Persons* (Oxford: Clarendon Press, 1984).

(a) The argument that it is *equally* good to be born a boy or a girl is not, in fact, terribly plausible; its initial appeal stems from confusing this claim with the claim that it is neither better to be a boy nor better to be a girl. The arguments for options (1) and (2) above each have their virtues. Roughly speaking: if we are willing to admit that the social environment should be taken into account when we assess the future life prospects of children, then it appears that we should prefer boys; if we confine ourselves to biological grounds, then we should prefer girls. I have not here attempted to settle the question of which argument is more compelling and am happy to leave it up to each reader to come to their own conclusions on this matter. However, it is extremely unlikely that the force of these competing arguments is exactly equal, so that we have no reason to prefer one sex or the other.

Thus, if it is going to be plausible to hold that we have no reasons to choose in favour of either sex, this must be because (b) (i) the comparison of the relative merits of being born male or female cannot be made or (ii) because the question of which sex is better is inappropriate or should be resisted for some other (yet to be determined) reason, rather than because the balance of considerations in favour of each sex is precisely equal.

(b) (i) There is, of course, inevitably a significant amount of vagueness and uncertainty about the relative merits of being born a boy or a girl. It may be hard to tell which sex is better. Yet it would be premature to conclude from this that the comparison cannot be made because there is no fact of the matter. Remember that the argument for enhancement *presumes* that in most cases there is an answer to the question “what is better”. We would need a good reason for thinking that there will be no such answer in this case. Indeed, even emphasising the difficulty of making the assessment in this case risks appearing contrived. Similar uncertainties beset our assessment of the impact of other genes, especially now that the “disability critique” of prenatal testing has contested the extent to which even conditions that

are widely held to be disabling impact negatively on the quality of life of individuals.⁴¹ Given the dramatic impact that biological sex has on a child's future, if we can't tell whether it is good to have a Y chromosome or not, it is hard to see how we could be confident about the overall impact of the presence or absence of other genes. The intuition that it is uniquely difficult to evaluate the balance of considerations in the case of sex selection reflects, I believe, a previously existing belief that there is no reason to choose either male children or female children.

(b) (ii) We are left, then, with the possibility that the question of which sex is better is inappropriate or should be resisted for some other reason. We might hold that the question of whether parents have reason to choose boys or girls should be resisted because the aggregate consequences of parents acting on any reasons they had relating to the sex of their offspring would be disastrous: I discuss the plausibility of this claim in the next section. Alternatively, we might hold that this question is inappropriate because the prospects available to either boys or girls are "good enough".

There are two, related, difficulties with the claim that the prospects one has as a girl or a boy are "good enough" in the context of debates about human enhancement.

⁴¹ Adrienne Asch, "Prenatal Diagnosis and Selective Abortion: A Challenge to Practice and Policy." *American Journal of Public Health* 89 (1999): 1649–57; Adrienne Asch, "Why I Haven't Changed My Mind about Prenatal Diagnosis: Reflections and Refinements," in *Prenatal Testing and Disability Rights*, ed. Erik Parens and Adrienne Asch (Washington, D.C.: Georgetown University Press, 2000); Deborah Kaplan, "Prenatal Screening and its Impact on Persons with Disabilities," *Clinical Obstetrics and Gynecology* 36 (1993): 605–12; Marsha Saxton, "Disability Rights and Selective Abortion," in *Abortion Wars: A Half Century of Struggle*, ed. Rickie Solinger. (Berkeley and Los Angeles: University of California Press, 1997), p. 374–94; Susan Wendell, *The Rejected Body* (New York: Routledge, 1996).

First, it is difficult to see how we could determine that a child's prospects are "good enough" without making reference to an idea of "normal human capacities", especially if we want to retain the idea that we have reasons to try to avoid the birth of children with genes for various impairments. If it is not the fact that the capacities of a typical male child and a typical female child are both biologically normal that means that they are "good enough", what other reason could we have for setting the threshold of "good enough" here?

John Harris has offered an argument that *purports* to limit the extent of our *obligations* to reshape the capacities of future human beings without making reference to the concept of the normal.⁴² While Harris argues that we have—by definition—reason to provide each and every enhancement, he argues that parents are only *obligated* to avoid the birth of children with "disabling conditions"—being conditions that it would be negligent not to treat if a person presented with them to a hospital emergency department.⁴³ Moreover, Harris argues that there will be times when it would be negligent to fail to treat a normal person.⁴⁴

However, regardless of how plausible this is as an account of the limits of parental *obligation* in relation to enhancement, it falls well short of establishing that there are no *reasons* relating to the welfare of the child for selecting one sex or the other. Harris does state explicitly that the sex of a child is a "neutral" trait and that that it is not rational to prefer to be male or female, which presumably means that he thinks that parents have no reason for choosing

⁴² Harris, "Is Gene Therapy a Form of Eugenics?" *Bioethics* 7 (1993): 181.

⁴³ Harris, "Is Gene Therapy a Form of Eugenics?" *Bioethics* 7 (1993): 180; Harris, *Enhancing Evolution: The Ethical Case for Making Better People* (Princeton, N.J.: Princeton University Press, 2007, pp. 36–7, 92–3)

⁴⁴ John Harris, "One Principle and Three Fallacies of Disability Studies," *Journal of Medical Ethics* 27 (2001): 383–387, at p.181.

either sex.⁴⁵ However, he provides no argument for this claim and it is difficult to see what grounds there could be for believing it other than the idea that the species typical capacities of both sexes are normal.⁴⁶

The second difficulty with the claim that the normal capacities of either sex are “good enough” that we may neglect any further comparison between them, is that it seems that this should also be the case in relation to comparison with *other* forms of “enhancement”. If the need to consider the possibility of choosing an embryo with “better” prospects lapses as long as the embryo has the normal capacities of a boy or a girl then presumably we don’t need to worry about whether we might further improve on the capacities of human beings of either sex.

Are the aggregate consequences relevant here?

One objection to my discussion thus far, which will undoubtedly have occurred to the reader, is that I have ignored the aggregate consequences of parents acting on whatever reasons they have to choose boys or to choose girls. If couples do have reason to choose one sex over the other and act upon them this might have dramatic consequences for future sex ratios. If the

⁴⁵ Harris, *Enhancing Evolution: The Ethical Case for Making Better People* (Princeton, N.J.: Princeton University Press, 2007), p. 147.

⁴⁶ Thinking about the case of sex selection reveals that it is far from clear that Harris’s “emergency department” test (Harris, “Is Gene Therapy a Form of Eugenics?” *Bioethics* 7 [1993]: 180; Harris, *Enhancing Evolution: The Ethical Case for Making Better People* [Princeton, N.J.: Princeton University Press, 2007], pp. 92–3) is plausible without reference to the idea of the biologically normal. Presumably, it would *not* be negligent to refuse to treat a man who arrived at a hospital emergency department complaining about his inability to become pregnant or a woman who arrived complaining about her lack of a penis, which implies that parents have no obligation to select either sex. However, this intuition primarily reflects the idea that we are not obligated to treat people for the normal features of their biological sex.

ratio between the sexes became too uneven this would be likely to impact negatively on the quality of life of both: taken to an extreme it might make it difficult for people to reproduce. It might therefore be argued that parents' reasons for choosing the "better" sex lapse in the face of this prospect or are simply outweighed by stronger reasons to avoid contributing to the aggregate outcome.

How we should think about and respond to the possibility of undesirable social consequences as the result of the reproductive decisions of couples is a large and controversial topic and, for reasons of space, my remarks here will necessarily be somewhat brief. However, in the context of the debates about human enhancement, there are at least three difficulties with resorting to observations about the aggregate consequences in order to resist the conclusion that parents have reasons to choose one sex or the other.

First, it has to be observed that the literature about human enhancement tends to have a rather cavalier attitude to the prospect of aggregate consequences of parental choice in other cases. The risk of such consequences is endemic to the use of screening technologies to choose what sorts of children are born. Defenders of enhancement typically hold that we should be cautious about claims about the social impacts of genetic selection and should wait and see whether anticipated negative consequences do in fact occur rather than leap to the conclusion that access to technologies should be restricted.⁴⁷ We should be suspicious of any resort to

⁴⁷ Glover, *Choosing Children: Genes, Disability, and Design* (Oxford: Oxford University Press, 2006), p. 77; Green, *Babies by Design: The Ethics of Genetic Choice* (New Haven and London: Yale University Press, 2007), pp. 226–7; Harris, *Enhancing Evolution: The Ethical Case for Making Better People* (Princeton, N.J.: Princeton University Press, 2007), p. 179.

claims about aggregate consequences in this case in order to avoid acknowledging what the logic of the argument of enhancement seems to imply.

Second, while the anticipated aggregate consequences of parents acting on the reasons they have to select in favour of one sort of child or another may serve as a (good) argument for the *state* moving to prohibit making choices of this sort, it is far from clear how or why they should cause the parents' reasons for choosing a girl/boy to lapse or give parents reasons to act differently.⁴⁸ There is a collective action problem here. Insofar as they are concerned for the well-being of *their* child, each couple has a reason to choose a child with the best life prospects possible. Even if a couple agree that the aggregate consequences should be avoided, *their* decision will not bring these consequences about. If other couples choose a child of the "better" sex and they do not, sex ratios will alter despite their sacrifice. If other couples refrain from acting on their reasons, then the sex ratio will remain unaltered and a couple might as well ensure that their child has the best chances in life.⁴⁹ Thus, arguments about the aggregate consequences of sex selection leave the reasons *parents* have for choosing a child of one sex or the other essentially untouched.

Third—and most importantly—arguing that the social consequences of acknowledging the reasons couples have to choose certain types of children means that they should not act upon these reasons (or—more plausibly—that parents should be prohibited from acting on these reasons) undercuts a distinction between the "old" and the "new" eugenics that is crucial to

⁴⁸ Dan Brock, "Shaping Future Children: Parental Rights and Societal Interests," *The Journal of Political Philosophy* 13 (2005): 377–98.

⁴⁹ Brock, "Shaping Future Children: Parental Rights and Societal Interests," *The Journal of Political Philosophy* 13 (2005): 377–398.

the intellectual respectability of the current enthusiasm for human enhancement. The shameful history of the eugenics movement of the 1930s hangs like a dark cloud over any discussion of the application of genetics to human reproduction.⁵⁰ Advocates of human enhancement have tried to distance themselves from this history by distinguishing a “new” eugenics from the “old” eugenics and its distasteful historical baggage. An important feature that distinguishes the “new” eugenics, they argue, is that it abjures arguments based upon the interests of “the race” or society in favour of arguments about the welfare of individuals.⁵¹ Yet the moment we begin worrying about the aggregate consequences of parental decision-making, we are asking parents to subordinate the interests of their child for the sake of what would be good for society. The aggregate consequences are *social* consequences and—as we saw above—fall well short of establishing that children of one sex (or the other) do not have better life prospects and that therefore parents have reasons related to the welfare of their future children for selecting the sex of their children. Nor is it enough to protest here that our

⁵⁰ Buchanan et al, *From Chance to Choice* (Cambridge: Cambridge University Press, 2000), pp. 27–60.

⁵¹ Agar, *Liberal Eugenics: In Defence of Human Enhancement* (Oxford: Blackwell, 2004), pp. 3–16; Allen Buchanan, “Choosing Who Will Be Disabled: Genetic Intervention and the Morality of Inclusion,” *Social Philosophy and Policy* 13 (1996): 18–46, at pp. 18–19; Glover, *Choosing Children: Genes, Disability, and Design* (Oxford: Oxford University Press, 2006), pp. 26–29; Green, *Babies by Design: The Ethics of Genetic Choice* (New Haven and London: Yale University Press, 2007), p. 7; Savulescu, “Procreative Beneficence: Why We Should Select The Best Children,” *Bioethics* 15 (2001): 413–26, at p. 424. A number of other differences are also mentioned as distinguishing the “new” from the “old” eugenics (Buchanan et al, *From Chance to Choice* (Cambridge: Cambridge University Press, 2000), pp. 27–60; Kitcher, *The Lives to Come: The Genetic Revolution and Human Possibilities* (New York: Simon and Schuster, 1996), pp. 187–224; Daniel Wikler, “Can We Learn From Eugenics?” *Journal of Medical Ethics* 25 (1999): 183–194) but it is the emphasis on individual welfare that is most relevant in this context. It is also worth noting that a concern for aggregate consequences also threatens to undercut one of the other differences often offered to distinguish them—the role of the state in each. Given that the structure of the reasons bearing on parents establishes a collective action problem, the only reliable way of avoiding the aggregate consequences would be to restrict parental liberty via the exercise of state power, thus placing the state at the heart of the new eugenics as well as of the old.

concern is what it will be like *for individuals* to live in a society where the aggregate consequences have come about. Arguing that it would be better for individuals if society had some particular character is not enough to distinguish the new eugenics from the old. Once we begin reasoning in this mode it is entirely possible that the average quality of life will be better in a society in which some people have been engineered to be “natural slaves” who will work happily to serve the interests of others.

Thus, while the aggregate consequences of parents acting on the reasons they have to choose one sex or the other might be dramatic, these consequences do not unsettle the conclusion that children of one sex or the other may have superior life prospects. Moreover, any suggestion that the reasons parents have to choose a child of the sex with the better life prospects are outweighed by reasons related to the aggregate consequences of everyone choosing a child of the preferred sex requires parents to make their reproductive decisions on the basis of what would be good for society rather than their child and reveals the “new” eugenics to have much more in common with “the old” than its proponents currently acknowledge.⁵²

Tough choices: Sexual Dimorphism and Human Enhancement

I have argued that advocates of enhancement face a difficult dilemma when it comes to what they should say about the reasons bearing on parents in relation to the sex of their child.

⁵² Robert Sparrow, “A not-so-new eugenics: Harris and Savulescu on human enhancement,” forthcoming *Hastings Center Report* (2011).

Because a child's biological sex will have a large impact on their life prospects—much larger than most of the other “enhancements” currently available—it seems that parents should be responsive to reasons in relation to this choice. I have not here tried to settle the question of whether parents have reasons to choose male children or female children but I *have* argued that it is extremely implausible that the arguments that might be made in favour each sex should have exactly equal force and thus cancel each other out. Thus, it seems that the desire to have a “better” child should provide reasons in favour of one sex or the other.

I have not said anything about the force of these reasons and, in particular, whether or not they might be sufficient to establish an *obligation* on parents to act upon them: this is a problem for advocates of enhancement rather than a problem for the argument I have made here.⁵³ All I claimed to have established here is simply that—unless what is normal is normatively significant—however strong our reasons are to enhance our children by eliminating genes for disease conditions and selecting genes for enhanced longevity or intelligence, we have just as strong reasons to select children of whichever sex has the “better” capacities.

The idea that it is better to be one sex rather than the other is, I think, sufficiently repugnant to serve as a *reductio* of the idea that we should consider what would be “better” for our children without regard for what is normal. Advocates of enhancement are, of course, unlikely to concede this. However, such advocates must grapple with the question of how to respond to the fact that the aggregate consequences of parents acting on the reasons they have

⁵³ Sparrow, “Procreative Beneficence, Obligation, and Eugenics,” *Genomics, Society, and Policy* 3 (2007): 43–59.

for choosing the “better” sex are likely to be extremely dramatic. I have argued that any suggestion that parents’ reasons relating to the expected welfare of their child are outweighed by the need to avoid these aggregate consequences undercuts the distinction between the old and the new eugenics and leads to the conclusion that parents should be guided in their reproductive decision-making by what would be good for society rather than what would be better for their child.

The only way that I can see to avoid these unattractive conclusions is to admit that our reasons for making choices between possible future children lapse as long as the choices we are considering will all lead to children with normal biological capacities. If a potential child would have the capacities of a normal boy or normal girl then there is no need for parents to concern themselves about what would be better. We may have (strong) reasons to avoid the birth of children with less than the normal capacities of their sex, that is, reasons for therapeutic intervention. However, we do not have morally significant reasons for enhancement beyond what is normal. The idea of “normal human capacities” is thereby revealed as absolutely crucial when it comes to thinking about the ethics of genetic selection.

I must admit to some discomfort with this conclusion. I have not—and will not, for reasons of space—done anything to delineate or defend any particular account of “normal human capacities”, which is a task for future research that my argument here suggest is all-the-more crucial. It also seems rather conservative, in this day and age, to affirm the normative significance of a sexed conception of normal human capacities, especially given the powerful

feminist, post-structuralist, and “intersex” critiques of the idea of “normal” sex.⁵⁴

Nevertheless, without such a conception, I do not see how we can resist the conclusion that parents have reason to prefer children of one sex or the other.⁵⁵

⁵⁴ Judith Butler, *Undoing Gender* (Boca Raton: Routledge, Taylor & Francis Group, 2004); Laqueur, *Making Sex: Body and Gender from the Greeks to Freud* (Cambridge, Mass.: Harvard University Press, 1990); Suzanne J. Kessler, *Lessons from the Intersexed* (New Brunswick, N.J., and London: Rutgers University Press, 1998).

⁵⁵ I would like to thank Toby Handfield, Satoshi Kodama, Catherine Mills, and Justin Oakley, for comments and discussion that have improved this paper, and Nicole Kouros for her help with preparing the manuscript for publication.