The Open University

Ethics Bites

Sport and Genetic Enhancement

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This is *Ethics Bites*, with me David Edmonds.

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And me Nigel Warburton.

David
Ethics Bites is a series of interviews on applied ethics, produced in association with The Open University.

Nigel
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David
The science of genetics is advancing faster than our moral intuitions can cope. No longer are so-called 'Designer Babies' just a figment of the imagination, restricted to the realm of sci-fi movies. The implications are huge – and not just for babies and reproduction. We can modify our genetic make-up as adults too.

Take sport; in theory we can now manipulate genes to make athletes run faster, jump higher, throw further. Does that mean sport will evolve into a form of competition between quasi-robots? And if so, would it matter?

The distinguished and genetically unmodified Harvard philosopher, Michael Sandel, believes that we should be extremely cautious in our attempts to shape and master nature, and indeed to master our shape.

Nigel
Michael Sandel, welcome to *Ethics Bites*.

Michael Sandel
Thanks, it's good to be with you.

Nigel
The topic we want to focus on today is genetic enhancement, specifically enhancement in the area of sport. I wonder if we can just sketch the kind of enhancements that are possible now and will be in the near future using genetic techniques.

Michael
As far as sports are concerned we hear a lot about blood doping and the use of steroids for performance enhancement in athletes and in the not distant future it will be possible to use various forms of gene therapy, for example, to enhance muscle and that I think is what in the area of sport will raise the most difficult questions.

Nigel
I wonder if you can give us some general pointers as to why you're against enhancement.

Michael
I should first clarify that I'm in favour of the use of biotechnology for medical purposes for the sake of health. So, for example vaccination enhances the immune system, vaccination for

small pox, for example. I'm all for that, because it promotes health. So any use of new genetic technologies to repair injury or to cure or prevent disease I'm all in favour of.

What I've criticised is the use of bio-medical technologies not for medical purposes but for non-medical enhancements. For performance enhancement in athletes, to try to select the genetic traits of children, to try to enhance memory, to enhance height, let's say among children who may be perfectly healthy but want to be taller, or their parents want them to be taller, sex selection, choosing a boy rather than a girl, these are the kinds of non-medical uses of genetic engineering that I've criticised.

Nigel
Quite central to your discussion here is the difference between a cure for something which is a deficiency and an enhancement that takes us beyond what's normal.

Michael
Yes, and I'll quickly acknowledge that there can be hard cases, right at the boundary. What about braces for orthodontia, for example? Is that related to health or is it merely cosmetic; is it just to improve one's bite or is it to fit a certain look that's become widespread in our society. That would be an example of a hard case. But the underlying difference between a cure and a non-medical enhancement requires a normative idea of health and of human flourishing. Health is about restoring or preserving normal human faculties which are a constitutive ingredient but a very limited part of the good life.

Nigel
In sport, enhancement is the name of the game; that's what most athletes want to do, to enhance performance. And they're prepared to do anything within the law and often things which are pushing at the edge or going beyond the law; how could you argue to an athlete that they shouldn't be using techniques that are available to them for enhancement?

Michael
There are two obvious arguments. One is safety; steroids for example have long-term medical risks. A second familiar reason is fairness. If there is a general ban in the Olympics on various forms of enhancement or blood doping or various forms of muscle enhancement, then if some use it surreptitiously or illicitly it puts the others at disadvantage. But I don't think that safety and fairness are the only reasons to oppose genetic enhancement in sport.

Nigel
In your book, The Case Against Perfection, you use the example of Tiger Woods who allegedly had his eyesight dramatically improved from myopia to very good vision by laser technology. Now that seems to be perfectly acceptable; he could have worn glasses and achieved a similar sort of effect. Why is that alright, but an enhancement beyond that not ok?

Michael
Right beyond safety and fairness, my main objection to the use of performance enhancing genetic therapies for example, has to do with the worry that it will corrupt sport and athletic competition as a place where we admire the cultivation and display of natural gifts. It will distance us from the human dimension of sport.

If you imagine a future where it was possible to engineer a bionic athlete, let's say in baseball which is my favourite sport, who could hit every pitch for a home run of 600 feet; it would maybe be an amusing spectacle, but it wouldn't be a sport. We might admire the pharmacist or the engineer but would we admire the athlete? We would lose contact with the human dimension and the display of natural human gifts that I think is essential to what we admire and appreciate in sports.

Nigel
You could have a superb hitter, but what about a superb pitcher; and if you've got those two together it seems to me that genetic enhancement would produce a wonderful sport. Just as with soccer, if you had a team that was as good as Pele, that would be wonderful to watch.

Michael
Would it? If we knew that all of the players were bionic athletes; robots in effect, if you take it to the extreme? We might find it amusing to see robots or machines perform great athletic feats, but would we even consider them athletic feats or human athletic feats. There are technology-laden sports like auto racing. I've never been able to understand the appeal of auto-racing myself, but I think what makes auto-racing maybe a sport or a game but not an athletic endeavour, is that it's mainly the machines that we're watching not the human excellence.

Nigel
Well take marathon running; that's a paradigm case of competitive athleticism. Any major athlete now who's a serious marathon runner, they use all kinds of technological means to enhance their performance, and that doesn't detract from the sport. If they're doing it within the law it seems to me it's amazing to watch these people. People running sub 5 minute miles over and over again, are really almost a different species to me, but it's still wonderful to watch.

Michael
But we would still want to know what sort of training was enabling them to do that. And isn't there a difference between great training and ingesting a drug or going in for some kind of genetic therapy? Here's an extreme way of testing your idea about the marathon. It's true that new technologies do sometimes make for a better race; but that's because they bring out more fully the skills and the excellences that the best athletes display.

Once marathon runners ran barefoot. And then along came someone and invented a running shoe. Some might have said that corrupts the race. I think that's an enhancement that actually perfects rather than corrupts the race because it enables the race to be a better test of who's the best runner, removing contingencies like stepping on a sharp pebble.

Take another extreme in the Boston marathon some years ago the winner crossed the line first, was given her prize, but then it was discovered she had used a rather unusual means of enhancement. After she got to the starting line she hopped in the subway and rode it most of the way, got out ran across the finish line. Now what is the difference between the running shoe and the subway? Both are technologies that enhance the ability to create the race but one of them corrupts the purpose of the sport and that's the test we should use with new technologies.

Nigel
I think there's an easy answer there, because the constitutive rules don't allow you to go on the subway; there's no limit on the running shoes you can use, but there is on the mode of transport apart from the shoes.

Michael
Appealing to the constitutive rules, if by that you mean the rules that happen to be in effect set down by the governing body of the sport, I don't think that's sufficient to reach the normative question because we have to think about it from the standpoint of people who are setting the rules. The Olympic committee today is trying to decide whether to permit runners and skiers to use a special oxygen chamber that runners might sleep in to enrich the red blood cells to enable the blood cells to carry more oxygen. The effect is the same as taking EPO which is a hormone that increases the ability of the blood to carry oxygen, or blood doping which are illegal. So the question is what should the rules be, what technologies should the laws allow and for that we can't just appeal to the law.

Nigel
Your argument relies on some idea of what is natural and I'd like to hear what makes something natural. Because on one reading anything that a human being does is natural.

Michael
Right and the inventiveness one could argue that leads to the inventions of these bio-technologies is itself a natural human pursuit. So that's true. My argument against

enhancement whether in the sports context or whether we're talking about creating designer children, is not to valorise or to sanctify nature as such. There are lots of things that are bad in nature, polio for instance, or malaria. I'm all in favour of using biotechnology to banish those facts of nature. So I think the conception that I need to explain what it is that troubles us about enhancement is some idea to do with the appreciation of the gifted character of human powers and talents and achievements: that not everything about us is at our disposal subject to our desire to master or dominate or manipulate nature. There is a certain hubris when human beings overreach and try to exert dominion over all of nature including human nature. So I'm more worried about the human dispositions and the hubris that lies behind the drive to perfect our nature than I am concerned to sanctify or protect nature as such.

Nigel
That notion of giftedness seems to imply somebody giving and the obvious candidate is God. God gives us certain natural attributes and it's for us to understand and develop those, but if you're an atheist or an agnostic, why would anybody take your view on this seriously?

Michael
It's a very good question. I want to make the case that the ethic of giftedness can be supported by various religious views that see God as the giver, but that is not the only way of making sense of the idea of giftedness. We commonly speak of the athletes' gift or the musician's gift, without necessarily attributing that gift to God. All the ethic of gift requires is an awareness, an appreciation, that not everything about us is the product of our own will, our own creation. It points to the moral importance of a certain attitude of restraint, even humility in the face of what's been given to us. Some would say we should exercise that humility because to do otherwise would be to play God. But I think that humility in the face of the given can also be understood in secular terms.

Nigel
And in the book you use three kinds of arguments against those who think we should master anything that we can master.

Michael
Yes, well I think that 3 important features of our moral landscape would be transformed if we really did come to think of ourselves, and were, wholly self-made men and women. I think we would lose a certain capacity of humility and restraint, not only with respect to our own natural talents but especially with respect to our children. It's an important fact about children that they are not wholly the product of their parents will or the instrument of their ambitions. So I think humility is very much at stake here.

Also I think there would be an explosion of responsibility if people were held responsible for everything about them. It's morally redeeming and morally important that we aren't morally responsible for everything about us, and for that matter for everything that our children are or will become. Finally I think the moral basis of solidarity would be eroded if we came to think of ourselves as wholly self made and wholly self sufficient.

Nigel
What then would you say to a child who knowing you had sufficient funds and there was available technology who said Dad I really, really wanted to be good in sport and you're the only one who wouldn't give me that and you could have done it.

Michael
I would say go out and practice a bit longer.

Nigel
And the child would say practice isn't going to get me beyond all these genetically enhanced school colleagues I've got. I'm always going to be last in the race and that's your responsibility.

Michael

Well I would say, is, I would invite my child to ask himself or herself whether those genetically re-mastered or souped-up schoolmates weren't missing an important part of the purpose of sports and maybe even the joy of the competition. That some of the joy and some of the pride of success would be diminished if it were the product of a pill or tweaking of the genes.

Nigel
In sport this is a losing battle because sports people all over the world are already using every enhancement they can possibly find. Do you think the world is worse for that?

Michael
I think the world is and will be the worse in so far as the cumulative effect of technological enhancement and genetic enhancement will be a slide from sport to spectacle. Some people suggest well let the two exist side by side. Have races where there are no holds barred where all technologies are permitted, souped-up athletes, and have a second race for free range slow pokes and see which commands a greater audience. That's the challenge that's made by defenders of enhancement. I think that in the short run people might flood to the spectacle to see the robotic athletes.

But I think in time the audience will wane because spectacle exerts a certain allure, but only for a time because it swamps or diminishes and erodes the human element the nuance the subtlety the complexity of human beings negotiating with the limits of their own capacities. So I think the ratings will rise for a time, but then fade.

Nigel
Michael Sandel, thank you very much.

Michael
Thank you, it's been a pleasure.

David
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