

Greater Manchester Humanists

Humanist Discussion Group

19 January 2021

(Zoom meeting 7.30-9.00pm)

Enhancing Homo sapiens – the use of biotechnology to improve our species?

Developments in gene editing techniques such as 'CRISPR', biotechnology and bioengineering make possible the enhancement of human beings. We can already engineer artificial parts of the body that in many cases are superior to the original e.g. the sprinter Oscar Pistorius was banned from competing against 'able-bodied' competitors in 2008 because it was judged that his carbon-fibre legs would give him an advantage.

With gene editing it is now possible to edit the genes of an embryo to give that child benefits that other humans do not have. Superior cognition in memory and problem solving ability, as well as general intelligence and physical benefits such as better resistance to disease, greater stamina, strength and longevity, may all be possible in future. Moreover, this 'human germline engineering' would mean that changes to DNA would be passed on to any offspring.

The debate over gene editing has led most countries to ban the manipulation of embryos. However, for centuries we have employed medical science to improve our bodies –vaccines to prevent disease and create herd immunity, glasses, hearing aids, false teeth, artificial limbs and organs, pace makers, etc. And we have used deliberate selection in the manipulation of the genes of plants and animals for our own benefit. Gene editing humans could create a leap forward in the betterment of homo sapiens.

Yuval Noah Harari, author of 'Sapiens', criticized Humanists as debating the arguments of the past (e.g. does God exist?), rather than the issues of the future e.g. biotechnology. (The philosopher, Andy Norman had an exchange of views with Harari over his critique of Humanism that we looked at in June 2018). If we put 'Humans' at the centre of our philosophy and believe in human flourishing, then why not argue for enhancing humans and allowing them to live lives less damaged by cognitive deficiencies, disease, and physical breakdown? Evolution has given us amazing benefits though it has also left many aspects of our bodies prone to an early demise.

Those against the change often conjure up a dystopian world of 'Superhumans' controlling and dominating the inferior homo sapiens that would live in their shadow. Once they take control, the mass of humans might be bred as 'worker ants' to serve the masters (Brave New World?). After all, once humans developed superior intelligence they soon came to dominate and control the other species. If Gorillas could have foreseen the future surely they would have killed off the emerging intelligent ape?

There seem to be few views or policies on biotechnology or gene editing on Humanist websites. Was Harari correct in saying Humanists are not addressing themselves to the issues of the future?

Professor John Harris (Professor of Bioethics and Director of the Institute for Science, Ethics and Innovation at the University of Manchester), makes the case for utilising gene editing for human flourishing in his book 'Enhancing Evolution'. Is it time to take another look at deliberate selection, rather than natural selection, and in so doing create better human beings?

RS
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References

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Review of Harris's "Enhancing Evolution".

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Harris, John, (2015) - why we should allow gene editing: <https://www.theguardian.com/science/2015/dec/02/why-human-gene-editing-must-not-be-stopped>

Genome editing policies of different countries:

<https://www.forbes.com/sites/farahqaiser/2020/10/31/study-there-is-no-country-where-heritable-human-genome-editing-is-permitted/>

https://docs.google.com/document/d/e/2PACX-1vSm2ck_5PMArmzxH5dHZJ5Atumlmx_jn4dIoUNxvOBde6tufQpgnqxklrmfxmq0sA/pub

Vox - Scientists can now genetically engineer humans. A big new report asks whether we should:

<https://www.vox.com/science-and-health/2017/2/15/14613878/national-academy-genome-editing-humans>

Michael Sandel critique of cloning/perfect humans:

<https://www.theatlantic.com/magazine/archive/2004/04/the-case-against-perfection/302927/>

Human enhancement - Pew Research:

<https://www.pewresearch.org/science/2016/07/26/human-enhancement-the-scientific-and-ethical-dimensions-of-striving-for-perfection/#ethics-and-religion>

First Gene edited Babies

<https://www.scientificamerican.com/article/chinese-scientist-claims-first-gene-edited-babies-born/>

Are we about to witness the most unequal societies in history?

https://www.theguardian.com/inequality/2017/may/24/are-we-about-to-witness-the-most-unequal-societies-in-history-yuval-noah-harari?CMP=Share_iOSApp_Other

Biotechnology: Ethical Issues

<https://www.encyclopedia.com/medicine/medical-magazines/biotechnology-ethical-issues>

Superhuman - Genetically modified Humans

<https://www.biotecharticles.com/Biotech-Research-Article/Superhumans-Genetically-Modified-Humans-2895.html>

Redefining Humanism- Technology and society (Aug. 2020):

<https://technologyandsociety.org/redefining-and-renewing-humanism-in-the-digital-age/>

Videos

Genetic Engineering Will Change Everything Forever – CRISPR

<https://youtu.be/jAhjPd4uNFY>

Transhumanism: Will humans evolve to something smarter? | A-Z of ISMs

<https://youtu.be/RVmuU04-X5E>

John Harris on enhancing evolution:

<https://www.youtube.com/watch?v=SQSTRITPyHY>

John Harris on gene editing in human embryos:

<https://www.youtube.com/watch?v=kIMOp9uZbk>

How we'll become cyborgs and extend human potential | TED Talk Hugh Herr

https://youtu.be/PLk8Pm_XBJE

How CRISPR lets us edit our DNA | TED Talk Jennifer Doudna

<https://youtu.be/TdBAHexVYzc>

Science Time - The Age of Superhumans - Gene Editing Through CRISPR & AI

<https://youtu.be/ybaMW2WvaBE>