

Christian belief that our ultimate hope lies in divine gift rather than human accomplishment.

Human Enhancement reveals a faith in science, medicine and technology to provide solutions for all of life's challenges. It raises important questions about the status of the human body, limits and future hope. Is the human body a flawed prototype in need of improvement or it is a work of art in which beauty and function have been perfectly

designed? Are human limitations, such as lifespan, obstacles to be overcome or gifts to be embraced? Is future hope located in increased control within this life, or does it lie beyond death in the form of resurrection bodies? Unless the Church explores these and related questions, and engages with this rapidly growing debate, it will be difficult for society to take decisions which are informed by Christian tradition and insight.



Rev Dr Justin Tomkins

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Further information

www.cis.org.uk – Christians in Science

Suggested reading

Tomkins, J. M., *Better People or Enhanced Humans?: What it might mean to be fully alive in the context of Human Enhancement*, Sunnyside Books, 2013

Garreau, J., *Radical Evolution: The promise and perils of enhancing our minds, our bodies – and what it means to be human*, Broadway, 2005.

Sandel, M. J., *The Case against Perfection: Ethics in the age of genetic engineering*, Belknap Press, 2007.

De Grey, A., *Ending Aging: The rejuvenation breakthroughs that could reverse human aging in our lifetime*, St Martin's Press, 2007

THINKING
ABOUT...

human enhancement

How far should we improve the human body?

ADDRESSING QUESTIONS OF SCIENCE AND FAITH



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human enhancement

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Healing is distinct from enhancement

I wonder how you feel about your body? We are different shapes and ages, we have different colour hair and skin, yet each of us has in common the same human reality of facing aging and death.

Or so, at least, our ancestors accepted. Today it appears that these very human realities are no longer out of reach of human aspirations for dominance and control.

Human Enhancement refers to the quest to try to enhance the human body. Built as it is upon the vision that it is possible to improve upon the human body, it involves both dreams and the actions which grow out of such aspirations.

Contemporary science, medicine and technology may only be at the early stages of empowering such a quest but that does not prevent the dreams from being profoundly ambitious.

Human attempts to fight sickness and disease reach back to the earliest points within human history. Healing formed a central aspect to Jesus' ministry on earth before his death and resurrection, and during the last two thousand years

it has been a key priority in the work of the church, both through medicine and prayer. Yet healing is distinct from enhancement. Healing involves the return to health and well-being. Human Enhancement, by contrast, involves attempting to move beyond health and to reach for what is superhuman.

One contemporary project which might be understood as a quest for enhancement is the use of drugs such as Ritalin and Modafinil by ambitious university students; drugs which are prescribed for children who have difficulty in concentrating are being used by very able students in order to improve upon their natural high levels of concentration. A second existing enhancement project involves the use of prosthetic limbs not simply to replace the use of arms and legs but to go beyond what natural limbs can achieve. The implantation of a magnet within one's finger, or electrodes within one's arm, in order to produce new sensations and control, represents a third such enhancement project. These projects raise interesting issues yet they are incredibly tame in relation to those envisioned for the future.

DO WE PLACE TOO MUCH FAITH IN SCIENCE, MEDICINE AND TECHNOLOGY?

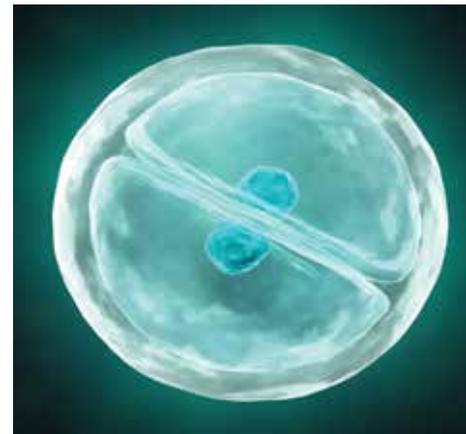
Whilst it is possible to debate the dividing line between healing and enhancement, future visions of enhancement possibilities lie far beyond healing. These include the quest to radically extend the human life span, to merge the human body with technology, and to genetically engineer one's child so that they excel in a particular career or lifestyle. Visionaries Aubrey de Grey, Ray Kurzweil and Lee Silver have explored these three areas of Human Enhancement respectively.

Aubrey de Grey calls for a war on ageing and believes that there are those alive today who will live to be one thousand years old. There are an increasing number of people who share his vision. Ray Kurzweil predicts that by the mid 2040's a singularity will occur, beyond which it will be impossible to distinguish

people from machines, such will be the overlap between the two. He is convinced that he himself will achieve immortality though the merging of his own body with technology. No less a technological expert than Bill Gates describes Kurzweil as the person best able to predict the future of artificial intelligence. Lee Silver describes a genetically engineered future in which parents will choose the genetic characteristics of their children so as to enable them to excel as footballers, gymnasts, or in another field.

Those who advocate Human Enhancement may refer to themselves as transhumanists. Transhumanists are those who seek to become posthuman; that is, beings with vastly greater capacities than those of current humans, through the use of science, medicine and technology. The Human Enhancement quest thus represents a wider ideological drive to take our future into our own hands and to bring all aspects of the physical world under our control and domination, even at the cost of our own human identity. Whether or not we wish to affirm certain aspects of the quest in practice, core facets of the underlying visions challenge the

WHAT IS OUR FUTURE HOPE FOR THE HUMAN BODY?



IS IT POSSIBLE TO 'IMPROVE' THE HUMAN BODY?