

Transhumanism

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In most general terms, ‘transhumanism’ says that the indefinite projection of those qualities that most clearly distinguish humans from other natural beings is worth pursuing as a value in its own right – even if that means radically altering our material nature. This rather open definition of transhumanism nevertheless captures by implication all of those who might be *against* such a movement, not least those – often of a ‘Green’ persuasion -- who believe that humanity’s current global crises stem from our attempts to minimize if not deny our commonality with the rest of nature. In this respect, ‘transhumanism’ needs to be distinguished from ‘posthumanism’, which aims to decentre the human as the locus of value altogether, which makes it more friendly to Green concerns. Whereas posthumanism may be seen in the broad sweep of Western intellectual history as ‘counter-Enlightenment’, transhumanism is better seen as ‘ultra-Enlightenment’: The one sees the Enlightenment as having gone too far, the latter not far enough.

The word ‘transhumanism’ was coined in the 1950s by [Julian Huxley](#), a founder of the dominant paradigm in biology today, the Neo-Darwinian synthesis, which integrates Darwin’s account of natural history with the experimental principles of modern lab-based genetics. Huxley, following the lead of his grandfather, Thomas Henry Huxley, accepted that Darwin fundamentally challenged anyone who wanted to uphold the superiority of *Homo sapiens* as a species, given that natural selection implies that all forms of life are limited by their largely innate capacities to adapt to a changing environment. In the end, any given species – including humans -- should expect extinction, not immortality. From that standpoint, all the promises made by Christianity and Islam of an eternal ‘afterlife’ looked empty. Nevertheless, the Huxleys believed that there was something fundamentally correct about these religious intuitions – something that Julian thought could be addressed by transhumanism. Whereas his grandfather held that advances in law, medicine and engineering served to push back, if not reverse, the default tendencies of natural selection, Julian Huxley argued that *Homo sapiens* is the only species equipped to comprehend the entire evolutionary process, in which case we incur a unique moral obligation to administer and direct its future course.

In terms of religious precedents for transhumanism, two of the oldest Christian heresies – both already opposed by St Augustine in the fifth century AD -- stand out for their persistent and countervailing visions of the transhumanist utopia: [Pelagianism](#) and [Arianism](#), each named for their originators, Pelagius (a Celtic lawyer) and Arius (a

Libyan bishop). Both Pelagians and Arians believe that it is within the power of humans to achieve godhood, understood as a recovery from humanity's fall from divine grace recounted in Genesis. This shared belief is based on the heterodox Christian idea that the death of Jesus effectively cancelled Adam's sin, putting humans back on course to become embodied deities, very much like the very person of Jesus.

Amidst the general anti-clerical sentiment of the 18th century Enlightenment, Pelagian and Arian ideas were revived in new combinations as Deism and Unitarianism, which included such science-based polymaths as Benjamin Franklin and Joseph Priestley. The heterodox theological movements upheld humanity's capacity to re-invent the entire normative order through a 'social contract' that does not trade on hereditary entitlements but instead regards humans as a community of self-legislating gods, given the dispensation of Jesus. The great revolutions of the last 250 years – American, French, and Russian included – have enacted this sensibility in distinctive ways, typically via written constitutions that function as modernist bibles, prescribing the sort of being in terms of which the mutually bound humans would have their actions judged.

Pelagians and Arians differed over what the end-state of a fully deified humanity would look like. In a nutshell, Pelagians imagined a 'heaven on earth', whereas Arians imagined an 'earth in heaven'. Perhaps the clearest latter-day descendants in the transhumanist movement that bring the contrast into high relief are, on the Pelagian side, Aubrey de Grey's vision of indefinite longevity for *Homo sapiens* through various biologically based enhancements, and on the Arian side, Ray Kurzweil's vision of *Homo sapiens* evacuated from its carbon-based platform to a supercomputer capable of colonising the universe with its ever expanding consciousness.

Although these historic transhumanist visions remain outliers to contemporary politics, they resonate with the process of modernisation. Thus, the technological transformation of the life-world to maximize human convenience is a Pelagian project, just as the scientific aspiration for a maximally comprehensive theory of reality (aka 'entering the mind of God' or the 'view from nowhere') is an Arian project. Whereas the Pelagian aims to reduce the time it takes to realize the human will, the Arian aims expand indefinitely the scope of humanity's intellectual horizons. The two movements worked *in tandem* in the modern era. The 17th century Scientific Revolution in Europe marked the triumph of the Arian vision, on the basis of which the 18th century Industrial Revolution began to make the Pelagian vision a reality.

In the 20th century, Arianism and Pelagianism morphed into cultural projects that sympathetically tracked that period's two main totalitarian ideologies, Communism and Fascism. These projects were, respectively, Russian *Cosmism* and Italian *Futurism*. Both attracted those who were frustrated by the short-termist and indecisive character of liberal democracy in a rapidly changing world that lacked the normative focus that in the past had been provided by religious authority. Although rarely acknowledged, these movements have left an indelible impression on contemporary transhumanism.

Although the Soviet Union regarded itself as a staunchly atheistic regime that removed the Russian Orthodox Church of all official standing, nevertheless it did nurture a materialistic version of an ideology that had been promoted in the 19th century by the Orthodox philosopher [Nikolai Fedorov](#), who argued on theological grounds that science should aim to make all humans – both living and dead – immortal by acquiring control of the mechanisms of heredity. Far from idiosyncratic, this idea was presaged in the Orthodox doctrine of *theosis*, which interprets the ‘Transfiguration’ of Jesus (i.e. the moment he realizes his divine nature) as something available to all humans. It was picked up by one of Julian Huxley’s fellow-travellers, [Theodosius Dobzhansky](#), a Ukrainian Orthodox geneticist who spent most of his career at Columbia University. The two were instrumental in supporting English translations of the work of the heretical Jesuit palaeontologist, [Pierre Teilhard de Chardin](#), who proposed the idea of the ‘noösphere’, a kind of cosmic consciousness that was an emergent effect of mass communications and the sheer physical dominance of humanity on the Earth.

Teilhard had been influenced here by another ‘Cosmist’, the geochemist [Vladimir Vernadsky](#), the main early Soviet booster of nuclear energy who is now seen as an anticipator of the current idea of the ‘anthropocene’. But perhaps the Cosmist who had the most lasting impact on Soviet thinking was the astrophysicist [Konstantin Tsiolkovsky](#), an inspiration for Sputnik, who presented interstellar travel as breaching the final frontier of humanity’s quest for cosmic consciousness. Today such ideas are most explicitly pursued by transhumanists who believe that an expansion of our cosmic horizons is not merely desirable but required for humanity’s survival, should it turn out that one or more global catastrophes prove that our stewardship of the Earth has been a failed experiment.

In contrast to the Cosmists, who were mostly scientists, the Futurists were artists practicing in different, often multiple, media who believed that rapid advances in science and technology – especially in terms of communication and transportation – were hastening a revolution in human consciousness that would empower humanity to unprecedented levels. The main Futurist theorist, [Filippo Marinetti](#), found favour with Mussolini and his ideas continue to inform the politics of the one self-declared transhumanist who sits in a national legislature, the Italian Giuseppe Vatinno. The Futurists were fixated on the speed of production enabled by advanced industrial technology, including such emerging consumer-oriented products as automobiles, airplanes, telephones and radios, all of which allowed more to be done in less time.

The Futurists were among the first to recognize the distinctive role that science played in ensuring the continual improvement of existing technologies. In effect, science permitted a speedier understanding of how increases in speed were made possible. Thus, ‘accelerationism’ is often seen as a feature of Futurist ideology. In contemporary transhumanist thought, accelerationism is present in Ray Kurzweil’s invocation of ‘Moore’s Law’, which is a historically based principle of exponential improvement in

computational power. Like the Futurists, Kurzweil argues that the main reason people think the convergence of human and machine consciousness (aka the ‘singularity’) lies in the distant future is that we fail to realize that progress is happening at an ever more rapid pace, in which case the speed in which change happened in the past is a poor judge of how it will happen in the future.

To be sure, Kurzweil’s vision that by the mid-21st century human consciousness will be successfully uploaded into a computer that enables us to conceptualise and experience the world as if we were still carbon-based creatures remains a minority report within transhumanism. Nevertheless, people are already voting with their feet. The amount of quality time spent on the internet suggests that people are beginning to locate the meaning of their lives more in virtual than actual reality. Of course, that tendency by itself does not guarantee that we shall realize Kurzweil’s dream. But it does provide an incentive for investment into research that might eventually realize it. The power of faith to overcome material obstacles should never be underestimated, especially when the believers are armed with science. The ease with which *Homo sapiens* has managed to remake itself and the physical environment over a few thousand years – in many cases, undoing the work of billions of years of evolution – has been a source of great fear, but also of great hope. That hope involves a vision of human history in which after emerging as a distinct branch in the tree of life, our biology serves as a platform for launching a range of technologies that extend our natural capacities and with which we eventually merge to constitute the executive control centre of an ever expanding portion of the universe.

It is worth observing that Darwin did not anticipate anything like transhumanism and rebuffed the efforts of his cousin Francis Galton to be enlisted as a supporter of the notorious proto-transhumanist movement, ‘eugenics’. Like so many other 19th century natural historians, Darwin doubted that life could be reduced to the statistical principles promoted by eugenics, let alone a ‘genetic code’. Indeed, Darwin’s contemporary Gregor Mendel, who is now considered the father of modern genetics, was largely ignored in his lifetime precisely because he claimed to have found just such principles. However, the molecular revolution in genetics that began in earnest with the discovery of DNA’s function in 1953 has increasingly brought together the expertises of computer scientists and molecular geneticists in quite literal projects of ‘bioengineering’ and ‘synthetic biology’, whereby life is built according to a mathematically specified plan from basic materials.

Whether humanity continues to believe that its progress is ultimately circumscribed by its biology, transhumanism’s own progress in the general culture may be measured by the extent to which ‘nature’ is seen not as imposing a limit on the human will, but rather as raw material, untapped potential or even capital that might be leveraged into new and improved states of being. To be sure, there is no reason to think that such beliefs are self-fulfilling but they do foster a climate in which people are willing to take more risks with themselves, other people and the world at large. Indeed, [Max More](#), a leading

contemporary transhumanist philosopher, has christened this article of transhumanist faith as the ‘proactionary principle’. However, the future political formation of transhumanism remains very much an open question: a theological heresy, a totalitarian vanguard or, as most self-avowed ‘transhumanists’ see themselves today, a libertarian techno-elite? Perhaps there is even room for a renovated welfare state to uphold ‘enhancement’ as a fundamental human right.

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