

Post-Human or Neo-Vitruvian? The Contemporary Neo-Humanist Revolution

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Abstract

With its cybernetic and optimistic vision of the future of mankind, characterised by the birth of a human-machine hybrid no longer subject to pain or chronic illness, the post-human theoretical perspective is flawed in both scientific and philosophical terms. To deny suffering is to deny human life itself, and yet, though the human dream of defeating pain and death has so far been systematically thwarted, it has not faded. The post-human approach proposes to go beyond human biological boundaries with the help of science and technology, reprogramming nature to resemble a human-robot hybrid. However, the artificial supports that this approach relies on (such as microchips) still cannot negate death and pain, which are constituent parts of biological life. The negation of pain would mean the negation of the human being in the philosophical sense. An alternative approach, which we shall refer to as Neo-Vitruvian or neo-humanist, emphasises the scientific and technical skills of human beings, who can improve human lives and defeat disease and pain by using their knowledge of the secrets of nature. Armed with this knowledge, today post-modern human beings are able to control nature with the same rules by which nature creates the world. In this way, today's human beings, like Leonardo Da Vinci in the Renaissance, use science to assume the role of the Universal Creator, without however manipulating nature as proposed by the post-humanists.

Keywords

Post-Humanism, Trans-Humanism, Neo-Vitruvian Age, Leonardo Da Vinci, Human-Robot Hybrid

1. Background

Post-humanism represents a new philosophical, anthropological and scientific

challenge for humanity in the struggle against pain and disease. The entry for British philosopher David Pearce on the website of the Institute for Ethics and Emerging Technologies (see <https://ieet.org/index.php/IEET2/more/pearce20140920>) states that the objective of post-humanism is to eliminate the suffering of human beings. His philosophical manifesto explains how the numerous achievements of science and technology, specifically in the fields of genetic engineering, nanotechnology, pharmacology (Bostrom, 2003), pharmacogenomics and neurosurgery, might converge to eliminate all forms of pain linked to disease, using new technologies implanted in the human brain to replace pain and suffering with gradients of well-being as part of a scientific and cultural project known as “*paradise engineering*”. We have already described the concepts of trans-human and post-human in a previous article in this journal (Toraldo & Toraldo, 2019). The philosopher Nick Bostrom, one of the key theoretical proponents of trans-humanism and president of the **World Transhumanist Association (WTA)**, affirms that trans-humanism and post-humanism represent a new paradigm for the future of human beings, bringing together scientists and researchers from diverse scientific fields along with philosophers and humanists, all with the same objective: to alter and improve human biology and prolong human existence. Bostrom distinguishes between a *post-human*, i.e. a modified human with “*better and/or superior*” physical, intellectual and psychological faculties than a “normal” human, and a *trans-human*, who is in a state of transition towards this state (Bostrom & Roache, 2007).

The trans-humanist movement has published the fundamental principles of its theory in a manifesto (<https://humanityplus.org/>) containing the following declaration: “*Humanity stands to be profoundly affected by science and technology in the future. We envision the possibility of broadening human potential by overcoming ageing, cognitive shortcomings and involuntary suffering. Research effort needs to be invested into understanding these prospects. We need to carefully deliberate how best to reduce risks and expedite beneficial applications*”. Notice that human beings are presented as passive and powerless to resist science and technology, while at the same time they are urged to take charge of the process by investing in it. Moreover, science and technology seem to offer only benefits with no risks (Lipowicz, 2018).

Trans-humanists argue that in order to use new technologies, it is necessary to keep an open mind, enabling us to adopt all technologies and all possible solutions, without ethical limits and without seeking to prohibit their use and development. Trans-humanists uphold the moral right to use new technologies to expand our physical and intellectual capabilities and increase the level of control over our lives and bodies. They aspire to personal intellectual growth that far exceeds the biological limitations of human beings. They remind us that technological progress is continuously developing and even accelerating. In their view, the loss of potential benefits due to technophobia and/or groundless and unnecessary moral inhibitions would be a tragedy for humankind (May, 2018).

Post-humanism is a consequence of the leap in scientific knowledge, particu-

larly in the field of biology, inherent in the shift from technical measures acting on the material world to the possibility of directly influencing the genetic and biological dimensions of human beings, i.e. their ontogenesis. The progress made in the fields of information technology and biology has opened up the possibility of going beyond the body made of flesh and blood, to a body constructed with artificial supports that are more efficient (immortal even), to the point that we may even speak of a “*new species*”. Hans Moravec, David Roden and Markus Lipowicz have spoken of part-human, part-robot hybrids whose essence is both biological and digital: a sort of soul that moves between various media, hence the term *trans-human* (Moravec, 1998; Roden, 2014; Lipowicz, 2017). Humankind is on the brink of being able to regulate its own biological rhythms. Mental and bodily efficiency is the new goal of life, to be achieved by remodelling human biology with no regard for the “*philosophical principle of responsibility*”.

To sum up, according to the advocates of post-humanism, while remaining within the bounds of biological evolution, the equilibrium between cultural and biological components in human beings is to be modified rapidly and radically, and this will require a reassessment of the role so far played by human biology, which has hitherto marked the limit of human cultural evolution. However, this vision of the post-human condition has a number of flaws on the philosophical level and entails biological distortions that are unacceptable in ethical terms. We shall discuss these issues in the next section.

2. Critique of Post-Humanism

Regarding the ontogenesis of human beings, the ancient Greeks argued that the nature of human beings is finite, imperfect and inalterable, and thus that pain and death are an indelible part of their destiny. Science and technology have always sought to provide a scientific and rational explanation of the human condition and the pain and sickness that are associated with it but they have always failed: today, as always, human beings must deal with pain and death on a daily basis. To date, all of humankind’s dreams of immortality have been systematically dashed, since—in their various ways—they are unfeasible. Redemption from death and pain continues to be no more than a dream (Bauman, 2013).

Human beings experience sorrow, agony and death every day but it is futile to speak of eliminating them. To deny pain is to deny life itself and the essence of human beings. Post-humanists propose to go beyond human biological boundaries with the help of science and technology, but they cannot deny death and pain, since these are fundamental constituents of biological life. The denial of pain is the denial of the human being in a philosophical sense. A modified human being is still human!

The second flaw of the post-human approach is that on reflection, its vision of the future of human beings is characterised by situations, developments and arrangements which in political, social and technological terms are profoundly

dystopian. This is due to its subjugation of humanity to the whims of technology, a phenomenon at odds with nature whose transformations are as likely to be destructive as progressive. Indeed, technology can be manipulated by politicians for their own ends, not just to control the population but to change human destiny, completely distorting the meaning of human life.

The third issue with post-humanism is its implications for bio-ethics. Indeed, any reflection on post-humankind at some point must face the fact that human life does not lend itself to such constructs. In the hierarchy of values to be safeguarded, life is supreme. In natural law, no one can take control of the life of another person. Even positive law recognises the centrality of the human person, as we would expect it to, since it bears the imprint of the human society by which it is determined. All of the inviolable rights of humankind arise from the right to life of every human being, which in turn springs from life itself. Personal freedom is inviolable but it assumes the existence of a number of other rights which constitute the foundation of civil life (Beyleveld & Brownsword, 2002).

The bioethical implications of the individual renouncing a part of his or her liberty in order to gain some biological advantage, however noble the intention, are presented in even starker terms in the writings of the 17th century English philosopher Hobbes, who argued that the submission of human beings to the power of technology, with the aim of entering *de facto* the political and civil community of which one chose to be part, entailed the loss of humankind's natural rights, which thus ceased to be inalienable. This amounts to a considerable sacrifice, given that in the state of nature human beings enjoy unlimited freedom, in which everybody has a right to everything. For Hobbes, the benefits of this renunciation are explicitly technological, in that the "*war of all against all*" inherent in the state of nature meant that there could be "*no place for industry... no culture of the earth, no navigation... no commodious building... no knowledge of the face of the earth... no arts, no letters, no society*". The essence of the social contract, therefore, is that human beings submit to their sovereign in order to achieve peace and technological progress. However, it is quite a different form of social contract when technology itself becomes sovereign. In seeking to change human beings, transforming them into human-machine hybrids, technology transfers this patrimony of rights from the human person to an external technocratic political power. From the philosophical point of view (Hobbes, 1651), the destiny and the future of humankind cannot be entrusted to a technocracy—effectively making human life the plaything of technology—because the latter is not neutral but subordinate to economic and political interests that seek to exploit it and transform it for the purposes of some despotic political design. Thus, the transformation of human beings in the post-human sense entails depriving human beings of their liberty (Khuse, 2000).

Is there some way in which human knowledge can be put to use in enhancing human happiness and progress that does not entail going against our own nature? In the next section we present the lineaments of a new philosophical anthropology that seeks to determine the specific and distinctive features of human

nature, in order to understand the aspects that bind it to the rest of creation, considering human beings as a phenomenon that emerges from life, from which it can never entirely free itself.

3. The Neo-Vitruvian Age

As we have seen, the post-human perspective as theorised by the trans-humanists' risks crossing over into the realm of science fiction, in which humanity's ethical values are not respected, opening the way towards "*political fiction*" and technical-political absolutism (a robot-human society). An alternative to post-humanism is provided by the neo-Vitruvian approach. While the latter accepts that technology must necessarily affect the relationship between human beings and nature, in its assessment of what this implies concerning the nature of human beings, it rejects the notion of "*hybridisation*", in terms of both the "*human-machine*" and its cybernetic variant, the human-robot.

The inspiration for the neo-Vitruvian approach is Vitruvian Man, conceived by the Italian genius Leonardo Da Vinci during the Italian renaissance in the 15th century. Vitruvian Man is depicted as a human body inscribed in a square and a circle, geometric symbols of union and harmony. Vitruvian Man is positioned in the centre of the figure, with comments above and below the image. These include notes on human proportions by the ancient Roman architect Vitruvius, originally written in 15 BC and transcribed and interpreted by Leonardo, who uses them to "construct" the humanbody inside the geometric figures (Ingrid, 2005).

Geometry and mathematical formulae, together with the relative laws, have been applied to the daily life of human beings in order to improve their earthly existence, but originally, they were not created for this purpose, but to translate the creative impulses of nature into geometric and scientific formulae and symbols. Over the course of history, human beings have become increasingly aware that their natural structure reflects the same biological and physical laws as the rest of Creation. Leonardo adopted the human proportions cited by Marcus Vitruvius Pollio in his treatise "*De Architectura*", placing human beings at the centre of his reflections and constructing the circle and the square around the human figure. It is thus human beings, with their distinctive proportions, that contain the relationships on which the geometric and mathematical forms are constructed, such forms then being used by human beings themselves to create whatever they choose. Knowing the secrets of nature, human beings can use them as they choose to improve their lives and overcome disease and pain. The human body (*which for Leonardo was an instrument of knowledge founded on the analytical observation of natural world*) becomes the yardstick with which to measure and understand the nature of human beings from the scientific point of view, making it possible to reconstruct the unity of form via the mental process of creative re-elaboration. It is probably in all this that the post-modernity and current relevance of *Leonardo's Vitruvian Man* lies. His representation is today

the best known because it has successfully been presented as the paradigm of a new world, of a different, more rational way of observing reality and explaining natural phenomena. However, it also opens up the possibility of intervening in the natural structure of human beings in order to improve it. The neo-Vitruvian approach seeks to act upon the nature of human beings but without damaging it or definitively modifying it. With its command of the relevant technical and scientific knowledge, it is able to interpret and study human beings with the same rules by which nature generated Creation. In this way, human beings replace the divine, since they themselves create using their knowledge of nature.

Talking Data: Health, Well-Being and Education in the Neo-Vitruvian Age

Despite the many socio-economic problems in the world today, the current period is in fact a better time to live on Earth than any other period in history. Since 1960 life expectancy on the planet has grown by almost two decades, from about 55 to 71. In 1990 only a third of the people reached the age of 70, while in 2010 it was almost half, and almost a quarter of deaths were of people aged 80 or more. This progress was seen throughout the world. A child born today in any country can expect to live longer than in any other moment in history of that country (World Bank Databank, 2014). Today, wellbeing is at its highest level in history. This is a moment of authentic global economic growth. From 1990 to 2014, real per capita incomes roughly doubled in 146 countries (World Bank Databank, GPD, 2015). In 2014, world per capita GDP exceeded 8000 US dollars, almost 40% more than in 1990. Despite the recent crises, there exist sufficient natural economic resources to improve the life opportunities and choices of the majority of humanity. In the course of the last few decades world poverty has fallen significantly. At the time of the fall of the Berlin Wall, almost two billion people (43% of the world population) still lived below the international poverty threshold set by the World Bank. By 2015, despite the world population growing by 2 billion in the meantime, the total number of poor people had fallen by more than half to almost 900 million (12% of humanity) (United Nations, Millennium Goal1, 2015).

For the first time in human history therefore, the number of poor people fell even while the world population grew (World Bank, Remarkable Declines in Global Poverty, 2013).

In 1980, almost half the world population (44%) was illiterate. Today, despite the growth of the population, it is now about one sixth. In little more than a generation, humanity has acquired an extra 3 billion literate people. The press and the internet have given everybody a new and cogent reason to learn how to read and write. Illiteracy now affects only 10% of the world's young, and the percentage is still falling (Roser, 2015). On a global level, the proportion of children completing high school who then enrol in higher education has more than doubled since 1990, from less than 14% to more than 33% in 2014 (World Bank Databank School Enrollment, 2014 <http://www.worldbank.org/>). Each year, another 25 - 50 million graduates come on to the labour market. MOOCs

(*Massive Open Online Courses*) such as those offered by the Khan Academy and Coursera are contributing to the growing numbers of graduates in the world. Since 1970, university education has become four times more frequent among men and more than seven times more frequent among women, to the point that for the first time in the history of humanity there are more women than men enrolled in universities (World Bank, World Development 2012 cit., p 14).

In the last few years, there has been a fall in the rate of disease, both infective (from bacteria, viruses and other parasites) and chronic (heart disease, lung disease, diabetes mellitus, cancer, etc.).

In 1990, 13 million children below the age of five died as a result of respiratory infections, diarrhoea, tuberculosis and other childhood diseases such as measles, polio, whooping cough, diphtheria and tetanus (UNICEF, 2015). Most of these deaths happened in developing countries. In 2015, 5.9 million children died of these diseases. Vaccinations, clean drinking water, education and behavioural changes have halved the scale of this immense tragedy (UNICEF, 2015). Increased use of contraceptives and better access to pre-natal and post-natal care have halved the percentage of mothers dying in childbirth (World Health Organization, 2012). Improvements have also been seen at the other end of the human lifespan. Throughout the developed world, the probability of dying from cardiovascular disease is today less than half what it was in the 1960s (World Health Organization, 2014). The use of new technologies and innovative drugs, together with prevention measures and the adoption of healthy lifestyles, has helped reduce the weight of chronic diseases. The importance of these new habits is clearly shown by the world statistics for mortality, which highlight two facts: 1) correct lifestyles began to have an impact on chronic diseases before drugs and before medical and surgical procedures became widely available; 2) countries that did not adopt healthier lifestyles but relied solely on medical technology continued to struggle with chronic diseases (Dwyer, 2015).

4. Conclusion

Today humanity is healthier, richer and better educated than that at any other period in history. The progress that has been made in the last few decades does not reflect merely incremental improvements associated with long-term tendencies but concrete results never seen in the past that will perhaps never be seen on this scale again. This is what prompts us to call this historic period the Neo-Vitruvian Age. The vision of humanity associated with the neo-Vitruvian Age seeks to promote the good of humanity and expand our knowledge of nature, without altering it or modifying it. In contrast, the post-humanist conception affirms the triumph of technology and science operating without limits. It is a source of permanent disorientation because it seeks to change nature by means of arguments and ideas that are redundant and useless, denying any role for ethics in science and human life. It robs life itself of its true nature, emptying it of its ethical boundaries and representative values. The passage from the human to the post-human will entail changes on the ethical, psychological and anthropological

plane, sending us in directions which today are hard to predict because they lead directly to *in* humanity. Thus, the Post-Humanists who seek immortality and the cancellation of pain and sorrow—together with technological innovation at all costs—in order to improve the quality of life place themselves in a dystopian philosophical and cultural state, since the promised results are not only unobtainable but are dehumanising and illogical and even damaging for humanity itself.

In contrast, the Neo-Vitruvian Age is underpinned by the reduction in poverty and the increase in literacy (projected to be almost universal among the next generation of adults), both at a time of strong demographic growth, and the numerical superiority of women over men in higher education and scientific research.

No doubt, humanity is still facing many great challenges. Middleclass families that once were considered well-off in the developed world now find themselves in economic difficulties; almost one billion people still live on less than two dollars a day; devastating wars continue to produce poverty and drive migration. And yet, on the positive side, all over the world a greater number of people than ever before are living in the best moment in the history of the planet. Today, as in the Renaissance when Leonardo Da Vinci drew the Vitruvian Man, humanity is proving its ability to take colossal strides. The notion that our humanity is something to be “*transcended*”—or even discarded altogether, as the term “post-human” implies—is profoundly misguided.

Conflicts of Interest

The authors declare that they have no conflict of interest of any kind.

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