

A SUCCINCT ACCOUNT OF TRANSHUMANISM WITH SOME OF ITS NOTABLE SUB-CATEGORIES

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Abstract

Transhumanism is the practical-cum-philosophical theory-cum-ideology of the 21st Century and beyond. It advocates the augmentation of the human bodily, intellectual, emotive, and cognitive capacities and so on to overcome the evolutionary genetic limitations, to bring about a revolution in life-forms through intelligent design, through the application of information technology, nanotechnology, biotechnology, cognitive sciences, and so on.

This paper undertakes the effort of giving a succinct account of transhumanism and its major sub-categorizations in the form of Democratic Transhumanism, Libertarian Transhumanism, Extropianism, Singularitarianism, The Hedonistic Imperative, Survivalist Transhumanism, Religious Transhumanism, Cosmopolitan Transhumanism, Cosmism, Anarcho-Transhumanism, and so on. It identifies the various possibilities, challenges, and even dangers of applied transhumanism.

The approach is largely descriptive and generalist in nature, with the evaluation containing especially philosophical and political components being often given special attention. It critically identifies the anthropocentric bias and origins of transhumanism, and occasionally emphasizes the need to adopt caveats, if the fallouts from the excesses of anthropocentrism on the subaltern are to be overcome or avoided. It compares transhumanism with posthumanism and succinctly identifies the similarities and differences.

Keywords

Transhumanism, Anthropocentrism, Enlightenment, Extropianism, Hedonism, Singularitarianism, Libertarianism, Democracy, Cosmopolitanism, Anarchism, Cosmism, Posthumanism

Introduction

“What more or better can be said of any condition of human affairs, than that it brings human beings themselves nearer to the best thing they can be?”

-J. S. Mill (Mill, 2009, p. 107)

Transhumanism is the scientific, technological, philosophical, and social movement or school of thought that aims to enhance, modify, and replace (partial or complete) human bodies, and/or along with the cognitive, emotive, and intellectual faculties to make a leap forward in the evolution of human life, by promoting research in and incorporation of innovations of science and technology.

This is being made possible by revolutionizing developments in the disciplines of so-called NBIC- which stands for- Nanotechnology, Biotechnology, Information Technology, and Cognitive Science. Such enhancements would be made with the purpose of making human life more worthwhile, granting humans the abilities to transcend the limitation imposed by the biological body, even to the extent of granting it immortality.

It challenges the foundations of evolutionary biology, which interprets the evolution of life-forms through primarily natural selection, and not planned intelligent design, the former of which is dependent on the largely chanced and unpredictable outcomes of competitions at intra- or inter-organism levels. One may also interpret it as the logical next step in evolutionary biology in which humans have succeeded in eliminating any relevant competition that might impede its desire to be intelligent designers of the future which would be populated by entities with artificial limbs and artificial intelligence, operating not just in the material world, but also multiple, invented virtual and other such worlds.

According to David Livingstone, the modern transhumanist movement “begins with the Extropy Institute, whose reading list is enough to ascertain the basis of the tradition that binds them: Robert Anton Wilson, *Prometheus Rising*, and the *Illuminatus!* trilogy, Richard Dawkins and *The Selfish Gene*, Ayn Rand’s *Atlas Shrugged*, Friedrich Hayek’s *The Constitution of Liberty*, Howard Bloom’s *Global Brain*, Hans Moravec’s *Mind Children: The Future of Robot and Human Intelligence*, Ray Kurzweil’s *The Age of Spiritual Machines*, works by Stewart Brand, and others on cryogenics, nanotechnology and a long list of science fiction authors, including Arthur C. Clarke, Isaac Asimov, Robert Heinlein, Vernor Vinge and a slew of other modern authors of the genre, including *The Matrix: The Shooting Script* by the Wachowski brothers with a foreword by William Gibson” (Livingstone, 2015, p. 315).

Max More provides one of the earlier definitions of philosophical transhumanism as- “Philosophies of life (such as extropian perspectives) that seek the continuation and acceleration of the evolution of intelligent life beyond its currently human form and human limitations by means of science and technology, guided by life-promoting principles and values” (More, 2013).

Transhumanism, as an approach or attitude, which focuses on promoting the enhancement of the human condition, is a part of human instinct and occurs even to laypersons. It can be witnessed in the writings of Aristotle, the founding father of a large number of western academic disciplines, who wanted humans to excel and move to the next level, through mastering the self, imbibing virtue, rationality, sociability, and so on, which, if once realized, can distinguish a superior person from the rest, just the way, he considered human species superior to the rest.

Friedrich Nietzsche in his famous work- *Thus Spoke Zarathustra*, inspires humans to transcend towards being *Übermensch* or ‘over(hu)man’ or ‘superhuman’, which is virtually an enhanced or a whole different version of humanity with modified conditions of interaction with one another and the rest of things (Nietzsche, 2006).

Western Philosophers like Voltaire, Montesquieu, Denis Diderot, Jean-Jacques Rousseau, Condorcet, David Hume, Adam Smith, Jeremy Bentham, Immanuel Kant, Thomas Jefferson, and so on, associated with the Age of Reason- the Enlightenment, which locates its roots in the Renaissance and Reformation movements, championed the values associated with humanism, human rationality, and belief in progress (Duignan, 2018).

The Renaissance had already laid strong foundations for humanism, by imbibing it in systems of education, in Classical literature of the time, in grammar, poetry, arts, and architecture, rhetoric, history, moral philosophy, and even religions, all of which led to the strengthening of individualism (a conception of autonomous atomistic human beings as ends in themselves, being paramount repositories of freedom, dignity, and rights) (Encyclopædia Britannica, 2014). Here are few selected lines from enlightenment era’s celebrated poet- Alexander Pope’s *An Essay on Man* that reflects the then contemporary emerging belief on humanity’s new possibilities-

“Great lord of all things, yet a prey to all;
Sole judge of truth, in endless error hurl’d;...

Go, wondrous creature! mount where science guides,

Go, measure earth, weigh air, and state the tides;
 Instruct the planets in what orbs to run,
 Correct old time, and regulate the sun..."

(Pope, 1734)

The poem describes the hierarchical construction of the universe, similar to "The Great Chain of Being" in Christian mythology, in which, humans are placed between God and non-human animals and the rest of nature, mainly on account of their rationality (Encyclopædia Britannica, 2017). This poem can be interpreted as one of the early sources of philosophical influence for humanism, anthropocentrism, technocentrism, cornucopianism, and even transhumanism.

As a champion of absolute human rationality, ethical egoism (justifying rational selfishness), laissez-faire capitalism (open competition in the economic marketplace with no protection for the weak), individual rights, and so on, Ayn Rand says, "in essence, is the concept of man as a heroic being, with his own happiness as the moral purpose of his life, with productive achievement as his noblest activity, and reason as his only absolute" (Badhwar & Long, 2016).

Transhumanism proposes a subjective and relative ontology as its definition and scope are a works in progress, until it completely becomes post-human (although transhumanist in essence, and anthropocentric in origins). An entity may be more transhuman than the other depending upon the degree to which it has undergone a change from the modern form of humanity into an artificial or virtual form or reality. One may be at a certain level of transhumanism if one makes use of certain drugs to enhance performance or mitigate challenges and limitations, makes use of hearing aids, pacemakers, prosthetic limbs, and other such aid devices.

The promising transhuman developments in the near future may take the forms of –Cryonics, in which human bodies are preserved after death for possible future revival; Virtual Reality, in which, real-world events are simulated into a virtual environment; Gene Therapy or RNA Interference, which allows for selective gene-editing and even makeover to make unprecedented changes to lifeforms; Space Colonization, to keep a backup for life (especially of humans and of those they most perceivably needfully exploit) or to restart histories and societies afresh; Cybernetics, to make technological enhancements in the human bodies (making them cyborgs, of different degrees); Autonomous Self-Replicating Robotics- which could create armies of high-tech, skilled, cost-efficient, automated workforce to replace highly fuel-inefficient, mood-prone, quickly lethargic, limited-capacity, slow-learning human bodies; Molecular Nanotechnology- to make big surprises come in ultra-small sizes; Megascale Engineering- constructing mega-structures of say- 1,000 km in length in one dimension, like space elevators, Globus Cassuses, or Dyson spheres, and so on; Mind Uploading, which aims to create non-biological intelligence and prosthetic brains; and , Artificial General Intelligence (AGI), which can replicate and enhance traditional and futuristic functions associated with intelligence and consciousness, like feeling, thinking, creating, imagining, communicating, and so on; and the other possibilities counting infinity (Anissimov, 2018).

One transhumanism or many?

Nick Bostrom in his essay titled *Transhumanist Values* defines Transhumanism as a "loosely defined movement" with an "interdisciplinary approach to understanding and evaluating the ethical, social and strategic issues raised by present and anticipated future technologies", which makes it a meeting point of various disciplines, and therefore is responsible for its various forms and sub-approaches, being at least ten in number, viz. Extropianism, Singularitarianism, The Hedonistic Imperative, Democratic Transhumanism, Libertarian Transhumanism, Survivalist Transhumanism, Religious Transhumanism, Cosmopolitan Transhumanism, Cosmism, and, Anarcho-Transhumanism (Bostrom, 2001; Pellissier, 2018).

Libertarian transhumanism

It is a form of liberal transhumanism that combines the aspirations of transhumanism with the market- and individual- driven ideology of libertarianism. Libertarianism lays strong emphasis on infinite individual freedom (thus infinitesimal coercion), however, what they are criticized as being incapable of or disinterested in delivering is distributive justice (with a promise to guarantee different forms of which, in Transhumanism, emerged democratic transhumanism) (Vallentyne, 2018).

Some identify very close connection between the geneses, core assumptions, and ambitions of the two streams of thought, with some claiming '*Transhumanists and Libertarians Have Much in Common*', in that both are anthropocentric- trying to secure maximum technological and economic enhancement to those humans who can afford, strive, compete, and so on, respectively, thus upholding the identity of a mostly privileged human subject, all emanating largely from the Scientific Revolution, Industrial Revolution, and Enlightenment; adhering to and promoting a brute form of equality of opportunity; treating reason, science and technology as neutral instruments of individual progress and of social change, and so on (Istvan, 2014).

Thus the libertarian creed of transhumanism proposes a minimalist state with minimal interference, to the benefit of privileged transhumans who are given near absolute liberty and rights to enhance them, thus faces the similar problems of inequity, possibility of massive maximization of various types of power by one or a group of entities (at the cost of others), probable hegemonisation of ideological structures, and so on.

Democratic Transhumanism

James Hughes advances various reasons why libertarian transhumanism may not be successful in attaining its results and encourages them to embrace democratic values, as –he emphasizes the need for intervention of state to respond to any threats from transhuman technologies, the necessity for equitable distribution of opportunities and of outcomes, to prevent monopolization and competition-disruptive practices (like too restrictive intellectual property laws), to forge alliances with and protect the basic interests (and prevent persecution) of other cultural and biological minorities (including posthumans), and so on (Hughes, 2018).

Democratic Transhumanism, on the slightly other end, seeks to emphasize and promote a different view of the outcomes of the enlightenment project, that is centered around democratic values of (relatively) substantive and social equality (not just of opportunities but also of outcomes), distributive justice (based on egalitarian principles), possibly seeing technology as an emancipator and equalizer of sorts (to create level-playing fields).

The term 'Democratic Transhumanism' was coined by James Hughes in 2002 (Pellissier, 2018). In his book *Citizen Cyborg*, James Hughes, expresses a clarion call for adopting democratic principles in transhumanism, while assuaging the concerns of libertarians, (neo-) Luddites, and other stakeholder constituencies, as-

Democratic transhumanism is the next stage of human self-emancipation through science and democracy. Democratic transhumanism addresses the legitimate concerns of the bioLuddites for equity, solidarity and public safety, and libertarian concerns with our right to control our bodies and minds. If libertarians want enhancement technologies to be safe, widely available and unhampered by Luddite bans, they need to support legitimate regulation and universal provision. If progressives want enhancement technologies to make society more equal, they need to make enhancement universally available. Numerous constituencies and movements can be woven together into a democratic transhumanist politics, including advocates of reproductive rights, disability rights, universal basic income, drug decriminalization, and transgender rights."

(Hughes, 2004, p. 187)

Note that Luddites, broadly, are those who are opposed to the technological replacement of human labour, and therefore, oppose technological change (Castella, 2012).

He presents an eleven-point program for democratic transhumanists, like the following- “Build the transhumanist movement... Guarantee morphological freedom and bodily autonomy...Defend scientific research from Luddite bans, while embracing legitimate safety and efficacy regulations...Protect scientific access to knowledge from overly aggressive intellectual property law...Expand federal funding for research into transhuman technologies... Create national health plans which include transhuman tech... Expand federal support to education... Provide job retraining and an income to the structurally unemployed... Solidarize with sexual, cultural, and racial minorities, especially with morphological minorities such as the disabled and transgendered... Support rights for Great Apes, dolphins and whales... Strengthen the democratic world government (Hughes, 2018).

Democratic transhumanism calls for both the democratic embracing of transhumanism as well as the transhumanist embrace of democracy.

He, therefore, attempts a synthesis between libertarian and democratic transhumanisms, which, of course, may open the floodgates of contradictions and confusion, as has happened with libertarian democracies. However, whatever challenges emerge, one needs a synthesis of the two principles in transhumanism as in politics, as the most practically attainable option, if the values associated with Enlightenment humanism are supposed to be preserved and promoted.

Extropianism

It is the philosophy, or as a transhumanist would call it- a sub-discipline within the transhumanist movement (from which, inter alia, the latter derives its normative roots), that seeks to maximize extropy (the core value of extropianism). As defined by Max More (a founding father of extropianism), extropy is “a measure of intelligence, information, energy, vitality, experience, diversity, opportunity, and growth” (More, 1996). It can also be defined as “the extent of a system’s intelligence, information, order, vitality, and capacity for improvement’, reposing faith in, and adopting the methods involving- ‘Rational Thinking’, ‘Perpetual Progress’, ‘Self-Transformation’, ‘Practical Optimism’, ‘Intelligent Technology’, ‘Open Society’, ‘Self-Direction’, and so on (Lejuwaan, 1999). Therefore, one can immediately sense the similarities with the values of Enlightenment humanism and Transhumanism.

Singularitarianism

It is the philosophy concerned around the predictive belief that at a point in time in future, the world would witness technological development of a massive scale, at an unprecedented rate, after the creation of a super-intelligent machine entity, ultimately resulting in the creation of a technological singularity.

As defined and philosophically advocated by Murray Shanahan, the technological singularity is "The prospective development of human-level artificial intelligence, rapidly followed by the arrival of superhuman-level artificial intelligence, precipitating an unprecedented level of social change” (Shanahan, 2015, p. 231). It may be that state when ordinary humans may be superseded by cognitively enhanced biological intelligence or artificially intelligent machines, or both (Shanahan, 2018).

One of the founders of this school, Vernor Vinge, had authored an essay titled *The Coming Technological Singularity: How to Survive in the Post-Human Era*, in which, he had predicted that by around the year 2023, we would have reached the possibility of a singularity, and had brooded over some of the relevant questions about the likelihood, possible opportunities, threats (including that of an existential crisis for humans), possible mitigative measures, and so on (Vinge, 1993). Vinge describes a few ways in which the singularity may be materialized-

- The development of computers that are "awake" and superhumanly intelligent.

- Large computer networks (and their associated users) may 'wake up' as a superhumanly intelligent entity.
- Computer/human interfaces may become so intimate that users may reasonably be considered superhumanly intelligent.
- Biological science may find ways to improve upon the natural human intellect.

(Vinge, 1993)

Another optimistic singulitarian, Ray Kurzweil claims *The Singularity Is Near* through a book with the same name and also predicts foreseeable future as *The Age of Spiritual Machines: When Computers Exceed Human Intelligence*, again with a book carrying the same name (Kurzweil, 1999; Kurzweil, 2005).

The Hedonistic Imperative

This is a hedonistic utilitarian movement involving transhumanism that aims to utilize the transhumanistic developments of genetic engineering, biotechnology, nanotechnology, and so on to maximize human utility by abolishing the sentience of all sufferings and replacing them with those means that promote pleasure and happiness, with David Pearce being one of the major advocates (Pearce, 2018). If applied to non-human entities like other animals, robots, virtual networks, and so on, it can take posthuman dimensions. It can finally fulfill the promise of according to everyone 'good life' or as the Greeks (most prominently of them- Aristotle) called the more comprehensive understanding of it- Eudaimonia (Britannica T. E., 2018). It may provide the best of experiences to anyone "even if Me-2.0 is mediocre and buggy", thus possibly ushering an era of more equality of treatment (even if entities are massively divergent with respect to their intelligence and other discriminatory parameters of this day) (Pearce, 2012, p. 239).

Through genetic recalibration, germline engineering, different bio-hacking methods, "Mass-Oxitocination", "Mirror-Touch Synaesthesia" and so on, entities could be made to feel satisfied, happy, fulfilled, loved, empathized and so on, to an infinite extent, and possibly as infinitely long as one would desire, with meager bio-technological interventions (Pearce, 2012).

And, all this could be done at minimal, if any, cost to oneself, to natural 'resources', other 'externalities' and so on, thus making an unprecedented leap towards making the most enjoyable pleasures-universally sustainable without entailing a comparable harm on another entity- and in the process- eliminating most areas of conflict of yesterday, which were based on competing claims over limited resources that the parties considered essential for their happiness and survival.

It possibly evens out the contradiction between the so-called quantitative and qualitative utilitarianism of which Jeremy Bentham and John Stuart Mill are respectively advocates. Advocates of qualitative utility defend it over Benthamite quantitative utility as 'crass' or 'pig' utility, contending on arguments that 'higher' pleasures are more sustainable, certain, less harmful (being a consequentialist philosophy), and so on (Crimmins, 2017; Sinnott-Armstrong, 2015). The hedonistic imperative transcends this distinction because pleasure (and, if wanted, pain), can be manually induced by the subject to whatever degree, duration, of whatever kind, and so on (refer to Bentham's Felicific Calculus), thus blurring the qualitative bifurcations and not causing any substantive consequential harm to any other party (refer to Mill's harm principle), all ideas being subjective and relative to the perspective of oneself, with no need for the concurrence of another party.

Thus technological advancements make it possible for enhancing the liberty of entities, providing almost unlimited and equal opportunities for access to virtual pleasures and happiness, without inherently displaying any limitations for the democratization of such distribution. If sentience is transcended from the bodily-sensory to the virtual or other forms of artificially induced means, it would result in real terms in a cornucopian world or a world of plenty, even if partially or totally virtual, for everyone with no wastage. Kindly excuse for the anthropocentric and speciesist content in the term- Cornucopia- which is a mythological symbol of plenty, symbolized by- unending goodness flowing out of a mythical (probably goat's) horn.

Moreover, virtual or technologically-assisted utility maximization also takes care of Mill's Harm Principle that places limitations on the individual exercise of liberty (in pursuit of maximizing their utility), on grounds that such an exercise would come at a loss of another's liberty or would substantially harm the other. This assumption holds true for most utility-maximizing pursuits of modern humans where the available pool of resources are restricted (as in most cases they are), causing a loss of a similar opportunity for other aspiring stakeholders (a share of which may be even more important for the other aspirants, especially, inter alia, if the other participants have a deficient, lesser, or no share of such resources- given the Theory of Diminishing Utility).

Moreover, a large section of modern human practices also- directly or indirectly, harms other humans. As generic examples- establishing great nations, economies, factories, corporations, and even seemingly innocuous agriculture, and so on promotes large-scale asymmetries of distributions, and even harm to others, with their facilitating innovations of identities (races, nations, castes, gender etc.), money (and such media of quantifying, evaluating, comparing, exchanging, and amassing resources and other imaginary benefits) and other (including technological) implements, even to the extent of causing great harms to the ignored and exploited.

Furthermore, tragedies of humans apart, an even larger section of harms that humans cause, affects other sentient beings (in addition to that of their own making or of their natural fates). The globalised industry of animal agriculture or of 'livestock' farming, for the sake of providing food and pleasure to taste-buds, to the dominant species- Humans, while being one of the most polluting, 'resource' intensive, and ecologically unsustainable industries, is arguably the most massive and gravest inter-specie crime in the history of this planet (FAO, 2006; Harari, 2014).

Utilitarians like Jeremy Bentham and Peter Singer consider utility (the greatest happiness of the greatest number) to (should) be the guiding factor behind our moral and legal decisions, and therefore consider non-human sentient beings as worthy of similar or equitably differentiated regards, and therefore, would want active subjects to evolve ways to discontinue the objectification of utility-driven beings (Singer, 1975; Gruen, 2017). Considering all utility-maximizing creatures as being worthy of similar claims to moral regards (going by the core values of utilitarianism), a still anthropocentric approach may entail adopting a *laissez-faire* policy towards non-human beings initially, and after making most humans reach a substantially hedonistic high point through artificial design, focus should be expanded to enhance the utility of especially closer non-human relatives as well.

Therefore, the Hedonistic Imperative possibly gives humans the opportunity to realize their perceived *summum bonum* (as was probably first conceptualized by Cicero in Western Thought, referring to the final and highest good), in a sustainable, universal, and non-harmful manner (Devettere, 2002, p. 36).

Survivalist transhumanism

This is the philosophy that holds human or individual survival, longevity, and possible immortality as the central ambitions of transhumanism (Pellissier, 2018).

The urge for immortality is not a novel development for humanity and social sciences, as, after guaranteeing basic survivability (including through developments in healthcare and nutrition; molding natural environments to make them supportive and nurturing of human life), and after establishing conditions of more dignified living, it is the logical next step for the inherent urge for survival- the greatest driving force behind all of life and nature.

Immortality in different forms and of different understandings has been dealt with and sometimes even defended by thinkers like Plato (in *Phaedo*, explaining the transcendental beliefs of Socrates that permitted him to accept hemlock and end his bodily existence), Aristotle, Marcus

Aurelius, Cicero, Augustine of Hippo, Avicenna, St. Albertus Magnus, Rene Descartes, Gottfried Wilhelm Leibniz, Blaise Pascal, Immanuel Kant, and the list continues (Andrade, 2018; Britannica, 2017).

In Ancient Mesopotamian mythology, Gilgamesh- a demigod, was obsessed to achieve immortality, after whose name is established the modern-day immortality drive- Project Gilgamesh (Thomas, 2017; Yoshida, 2018). Futurologist Dr. Ian Pearson considers that very soon (say by 2050) human beings would have developed such technologies that would allow them to become immortal or at least- amortal, and, if implemented, the present generation of youngsters would go on to live forever (Keach, 2018).

Immortality of the soul or the essence is accepted in various religious traditions like in Hinduism and Christianity, however, in most cases, the afterlife in the soul's progression is represented through different material bodies. If technologies like mind-uploading are materialized, it would mean similar transmigration of the essence to another body. If the body is substantially altered to make it perpetually living or an immortal or amortal being is created, it would be similar to bodily immortality. Or if consciousness and essence are transferred to the virtual space, with no need for physical bodies to perform tasks, the dichotomy between real-virtual and mind-body will be fully transcended, meaning giving unprecedented agency and autonomy to the soul, the essence, or the ideal. Therefore, permanently liberating the soul from the dependence on the bodily, the 'real', and the material, thus representing the victory of idealism over realism or the overcoming of such a dichotomy, or their unity into a graduating continuum.

Such eternality may be achieved by possibly conserving corpses through cryonics with a view of possibly resurrecting those when appropriate technologies are made available; by renewing or making smart alterations to the human body (as Ian Pearson considers modern-day sex dolls as precursors to such bodies that we may adopt); by transferring the functions of body and mind (uploading) to androids; or, by transferring life from somatic to the virtual world (and existing even after the bodies are dead!), and so on (Keach, 2018).

Religious Transhumanism

For many a thinker, transhumanism intersects with religion and the supernatural at various junctures, although such thinking differs widely from thinker to thinker. It may take one of the two broad viewpoints- either a spiritual (or religious) transhuman or a transhumanist religion (or spirituality). In a world of transhumans, where orthodox religions and their dogmas would no longer be tolerated by entities whose geneses would be based on, and, whose so-called lives would be driven by a faith upon reason and science and technology, the entities which would still retain some human characteristics (having not been posthuman yet), it may require new forms of faith in religion and in spirituality, but based ideally on no-nonsense rationality. Religions or the belief in imaginary creators that exist only in the minds of its followers is one of the most important inventions of the anthropocentric world, which was one of the major reasons why humanity (or some groups of it) became such a huge success, while other animals or groups of humans who were unable to forge identities based on imagined deities, failed (Harari, 2014).

However, it would be unfair to argue that all of the religion was based on irrational and purposeless dogmas, as, often, irrational means are required to achieve rational ends, when it comes to semi-rational humans. All this is slated to change when gradually the irrational part of the human psyche is replaced by rational components, as in transhumanism. So are we expected to witness a subsequent change in the way spiritualism and religions are approached? Moreover, in an age of possible technological singularity, with human beings becoming what Ray Kurzweil refers to as 'Spiritual Machines', with human intelligence merging with technology, the new God may be found in machines and virtual networks, possibly distributing boons of immortality and spiritual transcendence (O'Gieblyn, 2017).

Almost a quarter of Patanjali's ancient treatise on the methods and benefits of yoga, *Patanjali Yoga Darshan*, is devoted to the ways in which a yogi can attain superhuman capabilities through practice of spirituality and bodily yoga, so as to transcend beyond the limitations of nature upon one's intellect, emotions, and so on, something technology also aims to do (Rajvanshi, 2018). Therefore technology and spirituality may go hand in hand to overcome the limitations of the natural human body- the core aim of transhumanism.

Various transhumanist thinkers, for instance, theologian Ted Peters, consider that transhumanism is or can be transformed into a religious movement, while, Albert R. Antosca holds that transhumanism builds bridges between strictly atheistic stands on one point and religious beliefs on the other (hpluspedia, 2018).

Although most transhumanists follow atheism or view religions with varying levels of skepticism, some religious transhumanists repose faith in religions and God, like the Mormon Transhumanist Association and the Christian Transhumanist Association (hpluspedia, 2018).

The Christian Transhumanist Association claims to partake in God's work (that is to create, extend, and renew life), by the utilization of science and technologies, while asserting to adhere to the belief that "God's mission involves the transformation and renewal of creation including humanity, and that we are called by Christ to participate in that mission: working against illness, hunger, oppression, injustice, and death"; declaring to "recognize science and technology as tangible expressions of our God-given impulse to explore and discover and as a natural outgrowth of being created in the image of God"; and maintaining that "the intentional use of technology, coupled with following Christ, will empower us to become more human across the scope of what it means to be creatures in the image of God" (CTA, 2018).

Futurist Ray Kurzweil, argues that after *The Age of Intelligent Machines* (in a book with the same name), transhumanism would may give way to *The Age of Spiritual Machines* (again in a book carrying the same name), in which the differentiation between human and machine would have faded, and machines would have adopted mental, emotional, cognitive, as well as spiritual faculties (Kurzweil, 1999).

To some thinkers, transhumanism and religions have a lot in common, including the claim that many of the ideas of the former have, in fact, emanated from the ideas espoused by the latter. For instance, while religion promises immortality and salvation from the cycles of life and death and of pleasure and pain, but makes people accept the limitation imposed by nature and their bodies as fortune, transhumanism makes it possible in reality to overcome misfortunes and offer what religion could only promise, for instance, while praying to a God in the event of a disease may give one hope, but visiting a doctor and by taking prescribed medicines one can be surer of the outcomes, and their causes (Messerly, 2015).

Another variant of religious or spiritual transhumanism is Buddhist Transhumanism, with one of its main proponents being Michael LaTorra, who combines the principles and values of Buddhism (like the goal of minimizing sufferings, self-realization, enlightenment, and so on), while employing technological methods and scientific knowledge (with emphasis upon knowledge and reason being the common approach of both the schools of thought) (LaTorra, 2015). Moreover, LaTorra, believes that even transhumanism can learn greatly from Buddhism, for instance, regarding the attainment of Nirvana or Moksha (salvation from cycles of life and death, and of pleasure and pain or "the deathless state of perfect liberation"), by following the Noble Eightfold Path (that involves, inter alia, meditating and gaining control over one's mind, body, and the natural human condition- a transcendental goal similar to that of transhumanism) (Prisco, 2015). What also makes the two schools of thought similar is their insistence upon practical wisdom, while adhering to some moral and ethical commandments, and their ability to evolve.

James Hughes is one of the pioneers of the Cyborg Buddha Project that aims to utilize the novel developments in information technology, genetic engineering, psychopharmaceuticals, nano-neurotechnologies or brain stimulation, and so on, for managing wicked and depraved feelings, reasoning and manners, so as to improve one's moral sentiments, reasoning, and behavior (Hughes, 2014). Hughes, holding that the development of ethical virtues (by enhancing cognition, morality, and behavior, by the development of and democratic application of emerging neurotechnologies and/or of morality-enhancing neurochemicals) being a "social obligation", expresses his optimism to improve the condition of human depravity in the following way-

In the near future, we will have many technologies that will allow us to modify and assist our emotions and reasoning. One of the purposes we will put these technologies is to assist our adherence to self-chosen moral codes and citizenship obligations. For instance, we will be able to suppress unwelcome desires, enhance compassion and empathy, and expand our understanding of our social world and the consequences of actions. So, contrary to the bio-conservative accusation that neurological self-determination and human

enhancement will encourage more selfishness in society, it will probably permit people to be even more moral and responsible than they currently are.

(Hughes, 2014)

Therefore, religious transhumanism may be centered around a God (abstract or technological); may prefer spiritual thoughts and practices over religious ones, like Buddhist Transhumanism does; may propound panpsychism (like Ben Goertzel does) that holds the view that mentality, consciousness, and essence is elementary and ever-present in the natural world, promising a midway between physicalism (a unified account of nature but a too simplistic one that fails to explain nuanced differences in consciousness) and dualism (mainly mind-body, which provides a disunified picture of nature); may include elements of faith (on say the singularity or life-extending technologies), worship (of say the charismatic connoisseurs of the field or of some technologies too); may also involve some institutions and structures (like the The First Church of the Singularity, the Church of Perpetual Life, and, the Church of Virus); or it may take the shape of a cult, and so on (Goff, Seager, & Allen-Hermanson, 2017; H+pedia, 2018).

Cosmopolitan Transhumanism

This variety of transhumanism treats humans as “citizens of the cosmos, rather than any particular town, city, or country” (DNA, 2015). Thus it asserts that any technological enhancement of the human condition must take into account the needs of all humans, irrespective of their social identities and geographical origins, making such an endeavor universal, all-inclusive, equitable, and so on. It may be to ensure that no human or group of humans become so advanced and powerful that it might consider doing some mischief on any of those left out. Cosmopolitanism, as a term, is derived from the Greek term *kosmopolitês* implying ‘citizen of the world’ (Kleingeld, 2013). Both Stoics, as well as Cynics (both of who probably trace their roots to the thinking of Socrates), embraced cosmopolitanism into their worldviews, with the great Cynic Diogenes, as well as the great Stoic Cicero, claiming themselves as “citizens of the world” (Brock, 2015).

The universalizing tendency, also possibly implies a universal form of majoritarian tyranny denying special privileges to different sections that do not identify with the so-called cosmopolitan view of the majority, this may also turn out to be a juggernaut for localized and peripheral dissenters. However, if the periphery does not make an effort to catch up with the core, it may lead to unprecedented asymmetry of power and exploitation. Ideally, one can find broad convergences in the noble vision of both transhumanism as well as cosmopolitanism, as both aim at promoting universal happiness, empathy, compassion, and mutual progress of all humanity (Pellissier, 2018).

Cosmism

Cosmism is a relatively open, laid back, ideologically and philosophically more open-ended version of transhumanism. It is less romantic and more tolerating of a diversity of views, ambitions, visions, core ideas, assumptions, and the ends of the transhumanist pursuits.

Cosmism doesn’t care if you’re viewing the universe as information or quantum information or hypercomputation or God stuff or whatever. Nor does it ask anyone to commit to AGI or mind uploading or brain-computer interfaces or fusion-powered toasters as the best way forward. Rather, it seeks to infuse the human universe with an attitude of joy, growth, choice, and open-mindedness.

(Pellissier, 2018)

It is different from most other schools of the transhumanist movement, in that it is less romantic and optimistic about the possibilities of reason and of science and technology, willing to accept that these may indeed be very limiting pursuits, to different stakeholders. It is willing to accept that science and technology, may share some of the limitations with religion and philosophy (something most of the advocates of the former are used to deny as to claim having transcended), adopting a more restrained and self-reflective approach in trying to understand and transform our lives, consciousness, societies and history (DNA, 2015).

Anarcho-Transhumanism

Anarcho-Transhumanism is that variety of transhumanist philosophy that promotes the values and principles of anarchism, by the means of transhumanist intervention. It believes in expanding the ambit of exercise of human self-determination, creating conditions of maximum possible liberty while adhering to the ideal of equality of opportunity in the techno-scientific-social-political arena.

To some thinkers Anarcho-Transhumanism recognizes that social liberty and material liberty are interlinked and that human freedom and agency is contingent upon expanding the extent of and enhancing the quality of the capabilities and opportunities available, with the capacity to prevent and to oppose domination, subjugation, and any curbing of the liberty to exercise one's free will (Gillis, 2012).

Anarcho-Transhumanism is possibly influenced by Crypto-anarchism that promotes a virtual world (especially in the form of internet, now) that is open, free from structures of domination and control (with their mediating and implementing agencies- whether real or virtual), by having a free and unlimited internet (including the so-called 'net neutrality'), decentralized crypto-currencies anti-spyware encryption tools, allowing unlimited data sharing, with means of enhancing individual choice between enhancing transparency or of protecting privacy or a desirable combination of the both, as the case and need may be, where individuals have the space and voice they desire and perceivably deserve, for the development of a free virtual marketplace to carry out virtual activities (McElroy, 2018; Paralelní Polis, 2018).

Bitcoin, or such digital or crypto-currencies, being one of the pillars of crypto-anarchism, are probably heralding the future of the global monetary system, which, for the first time may evade government control and regulations and rest entirely in the hands of non-governmental bodies and private individuals, thus giving them unprecedented control and agency over economic activities (Bartlett, 2017). Such crypto-currencies are based on blockchain technology, which is based on creation of 'blocks' of information in the virtual space, arranged in the format of 'chains', which transform certain processes, that were erstwhile carried out in the physical world using physical symbolical objects, thus bridging the real-virtual dualism, something that is one of the possibilities of the transhuman and posthuman world (Frankenfield, 2018).

Another such revolutionary development which may be of special interest to a student of politics and governance is the idea of crypto-nation, crypto-administration, or bit-nation, which aims to create "Decentralised Borderless Voluntary Nation" (DBVN), capable of hosting an all-digital facilitator of acquiring- virtual citizenship; certificates relating to birth, marriage, etc.; different kinds of identity documents, and so on, offering individuals the chance to enjoy citizenship rights and benefits of a virtual nation or community (Bitnation, 2018). Such ideas create possibilities to change or offer alternatives to the notions of sovereignty, rights, obligations, elements of the state, and so on.

Therefore, this variant of transhumanism advocates abolition or rolling back of the state from most of its functions, especially those that involve a coercive element with the citizens.

Technogaianism

Gaia or Gaea is a mythical Greek goddess symbolizing and personifying the Earth and its fertility (Pollard & Adkins, 2018). The Gaia hypothesis was hypothesized and popularized by James Lovelock in *Gaia – A New Look at Life on Earth* (Lovelock, 1979), *The Revenge Of Gaia - Why the Earth is Fighting Back – and How We Can Still Save Humanity* (Lovelock, 2007), *The Vanishing Face Of Gaia - A Final Warning* (Lovelock, 2009), in which he argued that Earth's environmental system, including its biotic and abiotic components of the biosphere, is a self-regulating (maintaining 'homeostasis') fertility-conserving system, till the homeostatic threshold is not breached by natural and artificial disturbances.

Technogaianism is one of the transhuman philosophies that aim to synthesize philosophical and scientific Gaianism with transhumanism, that is, to utilize technological advancements and philosophical and mythological direction to invent ways in which environmentalism may be promoted.

It could be seen as an extension of the ideology of Bright Green Environmentalism that takes a revolutionary rather than conservative approach to tackle environmental issues, by the application of technological innovations, research and development, entrepreneurialism, changes in consumption practices, and so on (Shear, 2018). It asserts to promote research, development, funding, and political will for the creation of future-

and sustainability-oriented alternative, clean, safe, and green technologies to solve the environmental problems that threaten humanity (IEET, 2018).

It diverges from the traditional and conservative position of radical environmentalism that mostly associates technological developments with having the potential to cause environmental degradation, advocating going back to nature, instead.

Technogaianism recognizes the potential of renewable energy technologies to conserve natural 'resources', the role of nanotechnology to convert wastes in landfills to utilizable products, creating new microbes by using biotechnology to decompose hazardous waste, and so on (E&E, 2018). Terraforming is one of the novel options being debated and its feasibility being studied, in which, another celestial body (or patches of it), of say the Moon or the Mars, could be made habitable for human (or some form of transhuman) existence by technological intervention- creating an artificial (semi-) Gaia (Steigerwald & Jones, 2018).

James Hughes considers Walter Truett Anderson's *To Govern Evolution: Further Adventures of the Political Animal*, Michael Rosenzweig's *Win-Win Ecology: How The Earth's Species Can Survive In The Midst of Human Enterprise* and Bruce Sterling's Viridian Design Movement as key influencing factors for technogaianism (IEET, 2018).

Notice that being a transhuman movement, it accords primacy to the Anthropos and aims to conserve the Gaia only to the extent of making the (privileged) human's life worthwhile. Therefore, it does not consider Gaia as being valuable *per se* or as being an end itself, otherwise which would have made it a part of the ecological or posthuman movements. It is, therefore, a technological *avatar* of environmentalism and not of ecologism.

Conclusion

Transhumanism is the predominantly anthropocentric ideology in the age of globalization and technological revolution. Most commentators say it is simply an old product in a new packet. It may simply catapult anthropocentrism to ever-commanding heights, without ever coming close to a post-anthropocentric and posthuman turn. As contended, it makes use of various forms of scientific and technological developments to bring enhancements to the human condition to make it more survivable, prosperous, flourishing, and so on. It aspires and promises to accelerate the evolution of the human species in a more purposive direction, rather than following the natural and chaotic path of natural selection. This has the potential for helping humans tide over most of their day to day problems and usher in an era of all-pervading happiness. However, it may also suffer from an overdose of egoism, thanks to its anthropocentric roots. Thus, as expressed earlier, it may also lead to a phase of unprecedented exploitation and chaos not only for the subaltern but also to the privileged subjects. How the technologies evolve and under whose or of what set of instructions they would operate is unpredictable, and would determine the historical outcome of applied transhumanism.

This paper, being a brief and generalist description of the subject would desist from making any exhaustive nuanced analysis, evaluation, prediction, and prescription. However, how transhumanism would negotiate with the posthuman turn in social sciences-whether it would attempt a synthesis towards a post-anthropocentric position or lead to an ever-greater concentration of power and of marginalization of difference is for the future to answer. It can be hoped that whatever direction it takes- whether of hegemonization, homogenization, and monism or of pluralism, toleration, and synthesis, it should be mindful of the hedonistic calculus, leading to the prosperity of most stakeholders, without leaving anyone to marginalized excruciation and oppression, as has been the case with anthropocentrism- especially after the Industrial Revolution.

The subject has been eliciting and receiving wide interest and appeal from various groups of people form academicians to policy-makers to industrialists to civil society groups, leading to the setting up of research and developmental facilities in various parts of the world and generating capital and legitimation to propel developments. Hence, transhumanism is an inevitable mission in progress which can be appreciated, criticized, debated, opposed, led and directed, but cannot be halted. Therefore it requires proper engagement from different stakeholders and needs to be given proper ethical direction, given the enormity of the power associated.

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