

The Transhumanism of Nick Bostrom and the Ultra-Humanism of Pierre Teilhard de Chardin

Teresa Driollet de Vedoya

DRIOLLET DE VEDOYA, T.: The Transhumanism of Nick Bostrom and the Ultra-Humanism of Pierre Teilhard de Chardin. *Studia Aloisiana*, 7, 2016, 3, s. 5 – 17.

Nick Bostrom, Swedish philosopher at Oxford University, director of the Future of Humanity Institute, thinks and works for the building of the posthuman being. He means to favorite human enhancement through the ethical application of science. The improvement of human condition and human organism would be accomplished by the advancement of technology, genetic engineering, information technology, molecular nanotechnology or artificial intelligence. Pierre Teilhard de Chardin curiously employs the word ultra-human in his writings. We ask ourselves if he uses this expression in the same way Bostrom does. Complexity and consciousness intensify through the way of life Evolution. With the human zoological group cosmos covers with a new envelope: the noosphere. Science, technic, industry, aesthetic and moral developed by men leads to a deep dependance between human beings. The human collective body, explains the Jesuit, will be the Matter that Christ will vivify and save. True human development only prepares the way to receive more than we are: a flame that would make us live for ever.

Key words: transhumanism, enhancement, evolution, ultra-human, Body of Christ

Introduction

Paul Ricoeur taught us to gather thinkers who lived in different times and cultures in order to mutually enrich their ideas.¹ In this paper we blend Nick Bostrom and Pierre Teilhard de Chardin's thinking in order to consider what the future man would be like.

1. The transhumanism of Nick Bostrom

In the transhumanistic world the history of technological development is appropriately regarded as humanity's most significant achievement. In the last few centuries large portions of humanity have been freed from alarming infant mortality rates, mental diseases, hunger and human shortcomings thanks to the gradual accumulation of artificial improvements.²

Transhumanists consider human nature as something ductile or malleable, we can build and rebuild it as needed. It consists in an indeterminate beginning that can be reoriented in divergent directions. The different capacities of the current human, thinking, feeling, and learning are only a small part of what humans are able to achieve. The poor, ordinary humanity can be largely enhanced by technology.

Humanity's improvement options include: radical extension of human life, eradication of diseases, and growth of human intellectual, physical, and emotional capacities. Our biological shortcomings such as aging, disease, feeble memory and limited and mutable emotional options, would be surmounted in the future.³

In a few years it would be possible to upload a human mind to a computer by replicating *in silicone* the detailed processes that would normally take place in a human brain. The progress of neuroscience and artificial intelligence would possibly isolate individual cognitive modules and connect them to modules from other uploaded minds. Some modules would translate, others would resolve problems of arithmetic or geometry. We could buy time in executive-modules that could best fulfill any goals. We could also copy modules; send high-bandwidth signals between parts of different brains and build architectures superior to biological neural nets. The mental structures of humankind will be outstripped. Whether a mind is implemented on biological neurons or on silicon processors is of no moral difference. The problem is who benefits from it. Research on Artificial Intelligence would also, in a short

1 I developed this idea in the Introduction of my book: DRIOLLET, T.: *La libertad interior : Proyección de le Volontaire et L'involontaire en la obra de Paul Ricoeur*. Biblos, 2008.

2 Cf. BOSTROM, N.: "The Future of Humanity." In: *New Waves in Philosophy of Technology*. Eds. Jan-Kyrre Berg Olsen, Evan Selinger, Soren Riis. New York : Palgrave McMillan, 2009, p. 4.

3 Cf. BOSTROM, N.: "A History of Transhumanist Thought." In: *Journal of Evolution and Technology*, Vol. 14, 2005, Issue 1, pp. 2-4.

period of time, produce a computer with a general intelligence matching the human brain.⁴

The current human's sensory modalities are not as highly developed as they could be. Some animals have sonar, magnetic orientation, or sensors for electricity and vibration; many of them have a much keener sense of smell or touch or sharper eyesight than we have. Perhaps in the future, technology will let us perceive or feel more and better, see infrared radiation or or add some kind of telepathic sense to our perceptions. Aging is also the biggest cause of illness, disability and dementia; anti-aging medicine is therefore a key of transhumanistic priority. The goal of these thinkers and scientists is to extend people's active health spans. Since we are still far from being able to halt or reverse aging, cryonic suspension of the dead would be made available as an option for those who desire to live for hundreds or thousands of years. It is possible that future technologies will manage to reanimate people cryonically suspended. We can conceive also future and aesthetic pleasures which would exceed what any human being has yet experienced. We can think of beings who can read books in seconds, be much more outstanding philosophers than we are and create new artworks. We can imagine a love stronger, and purer than any human being has yet lived. We should leave room in our thinking for the possibility that as we develop greater capacities, we could also discover values that will strike us as beings of a far higher order than those we can realize as un-enhanced biological human beings.⁵

Future human enhancements would be obtained by different means such as genetic engineering, pharmacology, information technology, molecular nanotechnology or artificial intelligence.⁶ Transhumanists hope that through the responsible use of science, technology and other rational means we shall eventually manage to become posthuman. They would develop a being with vastly greater capacities than current humans have.⁷ It requires that everybody should have the opportunity to become posthuman and that people should have the right to choose which technologies they want to employ to become more developed.⁸ Bostrom suggests about genetic enhancements:

4 Cf. BOSTROM, N.: "The Future of Humanity." In: *New Waves in Philosophy of Technology*. Eds. Jan-Kyrre Berg Olsen, Evan Selinger, Soren Riis. New York : Palgrave McMillan, 2009, pp. 3-6.

5 Cf. BOSTROM, N.: "Human Genetic Enhancements : A Transhumanist Perspective." In: *The Journal of Value Inquiry*, 37, 2003, p. 495.

6 Cf. BOSTROM, N.: "A History of Transhumanist Thought." In: *Journal of Evolution and Technology*, Vol. 14, 2005, Issue 1, p. 17.

7 Bostrom explains that. BOSTROM, N.: "The Future of Humanity." In: *New Waves in Philosophy of Technology*. Eds. Jan-Kyrre Berg Olsen, Evan Selinger, Soren Riis. New York : Palgrave McMillan, 2009, pp. 19-20: "'Posthuman condition' refers to a condition which has at least one of the following characteristics: Population greater than 1 trillion persons; Life expectancy greater than 500 years; Large fraction of the population has cognitive capacities more than two standard deviations above the current human maximum; Near-complete control over the sensory input, for the majority of people for most of the time; Human psychological suffering becoming a rare occurrence; Any change of magnitude or profundity comparable to that of one of the above."

8 Cf. BOSTROM, N.: "A History of Transhumanist Thought." In: *Journal of Evolution and Technology*, Vol. 14, 2005, Issue 1, p. 203.

"We might speculate, instead, that germ-line enhancements will lead to more love and parental dedication. Some mothers and fathers might find it easier to love a child who, thanks to enhancements, is bright, beautiful, healthy, and happy. The practice of germ-line enhancement might lead to better treatment of people with disabilities, because a general demystification of the genetic contributions to human traits could make it clearer that people with disabilities are not to blame for their disabilities and a decreased incidence of some disabilities could lead to more assistance being available for the remaining affected people to enable them to live full, unrestricted lives through various technological and social supports. Speculating about possible psychological or cultural effects of germ-line engineering can therefore cut both ways. Good consequences no less than bad ones are possible. In the absence of sound arguments for the view that the negative consequences would predominate, such speculations provide no reason against moving forward with the technology."⁹

While future technological capabilities carry immense potential for beneficial deployments, they could also be misused and cause enormous harm, to the extreme of causing the extinction of intelligent life. The greatest future risks are anthropogenic, not from nature. Destructive uses of advanced molecular nanotechnology, designer pathogens, nuclear arms race, high-energy physics experiments, and enhancing AI with an inappropriate goal system could cause the world to end in a bang.¹⁰ Other potentially negative outcomes include: widening social inequalities, a gradual erosion of meaningful human relationships, and ecological diversity. Such risks must be taken very seriously.¹¹ The way in which we can avoid existential disaster is by thoroughly controlling our evolution. It will require the development of a singleton or a world order with one independent decision making power. Permanent control of human development requires global and solid coordination.¹²

We can summarize some of the transhumanistic project's major values in the following words: save lives (life-extension, anti-aging research, and cryonic suspension); enhance the wellbeing of all human sentience; make humans smarter (individually, collectively, and developing machine intelligence); respect diversity (species, races, religious creeds, sexual orientations, lifestyles, etc.); develop pragmatism with an engineering and entrepreneurial spirit of science;

9 BOSTROM, N.: "Human Genetic Enhancements : A Transhumanist Perspective." In: *The Journal of Value Inquiry*, 37, 2003, p. 498.

10 Cf. BOSTROM, N.: "The Future of Humanity." In: *New Waves in Philosophy of Technology*. Eds. Jan-Kyrre Berg Olsen, Evan Selinger, Soren Riis. New York : Palgrave MacMillan, 2009, p. 2.

11 Cf. BOSTROM, N.: "Existential Risks Prevention as Global Priority." In: *Global Policy*, Vol. 4, 2013, Issue I, pp. 16–17.

12 Cf. BOSTROM, N.: "The Future of Humanity." In: *New Waves in Philosophy of Technology*. Eds. Jan-Kyrre Berg Olsen, Evan Selinger, Soren Riis. New York : Palgrave MacMillan, 2009, p.15.

allow wide access to innovations (encouraging research and public debate, critical thinking, open-mindedness, scientific inquiry and open discussion of the future).¹³

2. Teilhard's approach to evolution and ultra-humanism

We compare what Bostrom thinks about the future of mankind and what Pierre Teilhard de Chardin thought in order to imagine what the future man could be like. The Jesuit paleontologist and biologist invites us to consider all the topics he develops from a holistic perspective. Only if we conceive the process holistically we can discover each of the phases or moments of the problem we deal with. The ultra-human fate, our topic of discussion, cannot be separated from cosmos, life and human beings. Cosmos prepared the arrival of life; life foresees the appearance of man; man deals with transcendence.¹⁴ Life would draw a unique and gigantic organism.¹⁵ The ultra-humanism period would be-according to life- a state that affects all the beings on earth. It would be attained as the result of a synchronic, psychic-organic and evolutionary process.

Besides this holistic treatment of each moment of the whole, the Jesuit finds a forward and upward movement of the ascendant evolutionary current that joins crystals, plants, hominid animals and Christ's Second Coming. Cosmic matter successively rolls up and organizes. The trajectory of this movement seems to start in an expansion that continues in the unification of centralization and growing spirituality. This direction that Teilhard draws as a curve moves forward, magnetized by the light, the intensity and consistency of the Christ who solves and suranimates the world.¹⁶

The forward dynamism that indicates in its progress greater centralization and spiritualization is affected by entropic energies, great devastation, ruptures and recoils. The ascent of life entails fight, ruptures and death. The tendency towards the plenitude of the world beings doesn't discard drama.¹⁷ The psychic-organic drift is directed forward as a whole, but is made up of jumps, discontinuities, inventions.¹⁸ The vital stream of life has creatively ra-

13 Cf. BOSTROM, N.: "A History of Transhumanist Thought." In: *Journal of Evolution and Technology*, Vol. 14, 2005, Issue 1, p. 4.

14 Cf. TEILHARD DE CHARDIN, P.: *Le coeur du problème* (1949). In: TEILHARD DE CHARDIN, P.: *L'Avenir de l'Homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, pp. 341-342.

15 Cf. TEILHARD DE CHARDIN, P.: *Le phénomène humaine*. Oe. T. I. Paris : Éditions du Seuil, 1955, pp. 115-119.

16 Cf. TEILHARD DE CHARDIN, P.: *Le milieu divin*. Oe. T. IV. Paris : Éditions du Seuil, 1957, pp. 148-149.

17 Cf. FLORIO, L.: *Teología de la vida en el contexto de la evolución y de la ecología*. Buenos Aires : Agape, 2015, p. 27.

18 Cf. TEILHARD DE CHARDIN, P.: *Le phénomène humaine*. Oe. T. I. Paris : Éditions du Seuil, 1955, p.116.

mified during millions of years. Continuity and novelty combined to form the different species. The flow of living beings, that goes through profound alterations or transformations not always foreseeable in its course, is presented in the work of the scientist and theologian as an axis of interiorizing complexity.¹⁹ Teilhard doesn't conceive matter without spirit or spirit without a concrete base. Life is the specific effect of the increasing complexity of matter together with a certain cosmic curling. Life appears as an organized or centered heterogeneity: a unity made up by diversity. The step from Molecule to Cell is a metamorphosis that transforms a rigid organization into a more flexible and centered one with the internal appearance of new activities. Life represents certain interiority or psychic temperature that perfects the organic sphere.²⁰

2.1. Forward-driving human forces

Hominids started their expansion on earth only two million years ago. The *Homo sapiens* made his appearance in this branch of higher mammals. With this new living being the earth was covered with a new layer. Life wrapped over itself again, given that man is the only being who knows that he knows. At this point, life acquired new features of centrality, autonomy, projection, invention, calculation, and responsibility.²¹ Evolution became an observed and reasoned ascent or active orthogenesis.

Human processes did not escape organic rules. The human zoological group expanded and populated the earth along dozens of millennia until it reached the magnificent period that we call Modernity. Throughout this period western civilization reached a cultural, scientific and technical development that made it possible to conceive the Universe and Evolution in their true greatness for the first time. One of the unwanted effects of this amplification of knowledge was that individuals experience a growing angst that neither science nor philosophy could cure. Therefore, two alternatives were presented: either human beings overcome their existential angst through faith in a superior state and evolve into a superorganism formed by the interconnection of individual consciences; or they get stuck and drown in the growing angst of socialized reflection.

To the Modern period of expansion and individualization would follow, according to the constants of life, a moment of unification. The pressure, encounter and interaction of individuals would generate growingly complex forms of organization and consequently higher levels of consciousness. In this case the different human lines would come in touch with each other and mingle

19 Cf. TEILHARD DE CHARDIN, P.: *Le phénomène humaine*. Oe. T. I. Paris : Éditions du Seuil, 1955, pp. 59–64.

20 Cf. TEILHARD DE CHARDIN, P.: *Le phénomène humaine*. Oe. T. I. Paris : Éditions du Seuil, 1955, pp. 91–92.

21 Cf. TEILHARD DE CHARDIN, P.: Sur l'existence probable, en avant de nous, d'un Ultrahumain (1950). In: TEILHARD DE CHARDIN, P.: *L'avenir de l'homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, pp. 353–354.

through psychic coincidence or through their social institutions, tending to form a single organized membrane that would cover earth. Teilhard sees in the growth of science and human technique a great effort to ascend that must be accompanied by an attitude of convergence. Humanity would work together for unity. He calls this sustained effort love.²² Psychic warmth and a pleasant atmosphere are imperative for humanity in the course of totalization, without them the technical-economic enterprise of the world would only destroy the souls, being unable to unify them.

The super-organism would resemble a closed circuit. Each of the thinking elements, that connect emotionally and intellectually, would acquire a major influence over themselves by sharing clarity of vision and sympathy to each other.²³ In a few millennia, working in favor of evolution, humanity could find a way to reunite mankind organically forming a new ultra-complex, ultra-centered and ultra-personalized system. This would form a super human reunion.²⁴ This ultra-humanity would be made up by loving beings who would cherish and care for each other.²⁵ Love would spiritualize this ultra-conscious, ultra-personal, human condition. This ascent in love would mark the moment in which we would be able to feel the Spirit descending on humanity. The decision to love each other and receive the Spirit would affect the cosmos. The gift of giving oneself to others and the adoration of the Spirit would be the signs of those times. A current of love would expand through the surface and depth of the world, not as an added heat or perfume, but as a background essence destined to metamorphose, assimilate and replace it all.²⁶ Love would be the operational essence of every spiritual activity and become the only and universal form of humanity.

This “planetization” would be the authentic and direct continuation of the evolutionary process from which the human zoological group has historically emerged.

22 Cf. TEILHARD DE CHARDIN, P.: *Vie et planètes?* (1945) In: TEILHARD DE CHARDIN, P.: *L’Avenir de Homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, p. 152; TEILHARD DE CHARDIN, P.: *Sur l’existence probable en avant de nous, d’ un Ultra-humain*. In: TEILHARD DE CHARDIN, P.: *L’Avenir de Homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, p. 360; TEILHARD DE CHARDIN, P.: *La place de l’ homme dans la nature*. Oe T. VIII. Paris : Éditions du Seuil, 1963, pp. 163–166.

23 Cf. TEILHARD DE CHARDIN, P.: *Sur l’existence probable en avant de nous, d’ un Ultra-humain* (1950). In: TEILHARD DE CHARDIN, P.: *L’Avenir de Homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, p. 362.

24 Cf. TEILHARD DE CHARDIN, P.: *L’esprit nouveau* (1942). In: TEILHARD DE CHARDIN, P.: *L’avenir de l’homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, p. 118; TEILHARD DE CHARDIN, P.: *La formation de la Noosphère* (1947). In: TEILHARD DE CHARDIN, P.: *L’avenir de l’homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, pp. 220–221.

25 Cf. TEILHARD DE CHARDIN, P.: *L’esprit nouveau* (1942). In: TEILHARD DE CHARDIN, P.: *L’avenir de l’homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, p. 121.

26 Cf. TEILHARD DE CHARDIN, P.: *Le milieu divin*. Oe. T. IV. Paris : Éditions du Seuil, 1957, pp. 150–152.

2.2. Christian ascent

Teilhard, scientist and theologian, considers two necessary and complementary movements to complete evolution: a human Faith that ascends towards the Transcendent and a propulsive Faith that goes down towards the immanent forces.²⁷ The “human Towards” is made of vision, technique, human work, education and personalization. Human effort prepares the material for the Spirit to emerge from matter through God’s attraction. God would enter the ultra-human organism giving it a *supernatural life*.²⁸ In the peak of development reappear the continuity and rupture that characterize the diverse leaps that both push forward the evolution of cosmos and life, and make them start over. Christ emerges. He incarnates in a determined and evolved human figure. Christ maintains and ruptures humanity at the same time. One last metamorphosis awaits humanity: a worked and gifted divinization that saves men and with them the world. Christ represents the force of attraction and propulsion. A personalizing transfiguration awaits humanity: an immersion of the divine into the carnal and immediately a transfiguration or transmutation of Carnality into an irradiating energy.²⁹ The divine would adopt the form of energy: a fire capable of introducing itself everywhere. In this last imagined stage, Progress would be represented by a great united body of humanity composed by central or personal molecules. In the end the redemption of man and the world would be outlined in the hands of Christ.³⁰ Mankind and the world would be saved because of the work of Someone that centers and personalizes them. Christ gets into the human world from the top and from there he directs his rays to the world. The universe revitalizes through faith.³¹ A strong and collective faith divinizes man and cosmos.³² World and man acquire survival, they become a host where the Verb incarnates. The Omega is a supreme coincidence towards which the individual consciences are directed. It’s a self-subsistent center and the absolute final principle of irreversibility and personalization.³³ Christ isn’t an accessory added to the world, an adornment, a king, an owner; he is the *Alpha* and the *Omega*.

27 Cf. TEILHARD DE CHARDIN, P.: *Réflexions sur le Progrès* (1941). In: TEILHARD DE CHARDIN, P.: *L’avenir de l’homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, pp. 100, 106; TEILHARD DE CHARDIN, P.: *Le coeur du problème* (1949). In: TEILHARD DE CHARDIN, P.: *L’avenir de l’homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, pp. 343–349.

28 Cf. TEILHARD DE CHARDIN, P.: *Le coeur du problème* (1949). In: TEILHARD DE CHARDIN, P.: *L’avenir de l’homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, p. 348.

29 Cf. TEILHARD DE CHARDIN, P.: *Le milieu divin*. Oe. T. IV. Paris : Éditions du Seuil, 1957, p. 48.

30 Cf. TEILHARD DE CHARDIN, P.: *Le coeur du problème* (1949). In: TEILHARD DE CHARDIN, P.: *L’avenir de l’homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, p. 349; TEILHARD DE CHARDIN, P.: *Comment concevoir que se réalise sur terre l’unanimité humaine?* (1950) In: TEILHARD DE CHARDIN, P.: *L’avenir de l’homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, pp. 362–363.

31 Cf. TEILHARD DE CHARDIN, P.: *Le milieu divin*. Oe. T. IV. Paris : Éditions du Seuil, 1957, p. 170.

32 Cf. TEILHARD DE CHARDIN, P.: *Le milieu divin*. Oe. T. IV. Paris : Éditions du Seuil, 1957, p. 171.

33 Cf. TEILHARD DE CHARDIN, P.: *Vie et planètes* (1945). In: TEILHARD DE CHARDIN, P.: *L’avenir de l’homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, pp. 152–153.

Conclusion

We have worked on Bostrom's and on Teilhard's papers. What kind of future humanity are they proposing us? Bostrom accentuates the enhancement of human capacities but he does not care for the preservation of personal identity. We can conceive, transhumanistics think, beings with greater capacities and greater level of personal development than current human beings have. They would be smarter, cleverer or perhaps they would love more and better. The post-human is originated in a human being but we don't know if these new being would be the same person who gave birth to the transformation. Bostrom says about this:

"Preservation of personal identity, especially if this notion is given a narrow construal, is not everything. We can value other things than ourselves, or we might regard it as satisfactory if some parts or aspects of ourselves survive and flourish, even if that entails giving up some parts of ourselves such that we no longer count as being the same person."³⁴

The transhumanistic enhancement does not always lead us to what Aristotle called "total or completed human fulfillment" of each being according to its nature.³⁵ With the transhumanistic improvement we could disarm human beings. If the improvement of our intelligence, or our health or our sensitive capacities ameliorate or build us as a whole it is good for us, if it would destroy us it cannot be considered positive for men. We have some capacities and we are Peter, John or Mary. What are the relations between us to have certain capacities and the deep mystery of being oneself? We remember here the difference made for Gabriel Marcel between function and the profound mystery of being a person. We have biological, social or political functions, they only indicate a tiny or trivial or external aspect of ourselves. Each person is a huge mystery that no one can explain, control or govern properly.³⁶

Pierre Teilhard de Chardin foresees the centralization and personalization of human beings as a process which continues the general movement (complexity and interiority) of biological life. Teilhard proposes a transfiguration in Christ of humans integrating a collective human body. Men work

34 BOSTROM, N.: "Human Genetic Enhancements : A Transhumanist Perspective." In: *The Journal of Value Inquiry*, 37, 2003; <http://www.nickbostrom.com/ethics/genetic.pdf> p. 6.

35 We can go deeper in this topic in the first chapter of: ARISTOTLE: *Ethique a Nicomaque*. Paris : Ed. Vrin, 1987, or in the seventh study of the book: RICOEUR, P.: *Soi-même comme un autre*. Paris : Éditions du Seuil, 1990.

36 Modernity defines things and persons regarding to its functions. Today, explains Marcel, we characterize reality as problems to clarify and solve. Reason in all its forms (laws, management, institutions, engineering, technology) do not assume the profound mystery of beings. See more about this subject in the beginning of: MARCEL, G.: *Position et approches concrètes du mystère ontologique*. Paris : Librairie philosophique J. Vrin, 1949.

but salvation comes from the Other that waits for us. Bostrom indicates what kind of being we could become with our own effort. Teilhard announces how Christ can transform us.³⁷

Bostrom searches technical enhancement above all. Teilhard points out technique, love and faith. We find Bostrom's thinkings unilateral. Human beings are like Gabriel Marcel says a great mystery with physical, psychic and spiritual characteristics.

The posthuman or the Artificial Intelligence seems to be the *Omega* point for the transhumanists. In this technoscientific consideration of men the machine is the anthropological model. Bostrom is near Norbert Wiener when he writes:

"My thesis is that the physical functioning of the living individuals and the operations of hundreds of machines of communication the most recent are exactly parallel in their efforts identical to check the entropy through the feedback."³⁸

Human beings and machines can fight against the entropic process. Bostrom proposes an informational evolution which would solve men from destruction. Teilhard on the contrary announces that the ultra-humanity only prepares the way to Christ. It is not our effort or the machines' work that would solve us. Only a religious jump of the existence would rescue us from destruction.³⁹

We can simulate and freely modify nature for the transhumanists. Nature is maleable, ductile, we can rebuild it in different ways. For Teilhard, God is the *Alfa*, Nature is sacred, we are responsible for her. Every matter particle has a divine trace.

Teilhard foresees family, community, unity, social bodies, cooperation, in the end of times. Bostrom anticipates Intelligent Machines cleverer than men. The man seems to be reduced to a program or a sum of informations. The cybernetic model shortens all distance between machine, living beings and humans. We can say again with Gabriel Marcel that human being is a mystery and that he cannot be treated as a unit of functions.

Would Bostrom's technical human evolution be a true development or are we assisting to a new adaptative and determined development? Deleuze and Guattari wonder if this unilateral evolution can give place to differences

37 Emmanuel Levinas taught us to think of man as being called by Another and responding to that Other. That's why Levinas' first philosophy has been called ethics. You can read more on this topic in: LEVINAS, E.: *Totalité et infini: essais sur l'extériorité*. Paris : Poche, 1990.

38 WIENER, N.: *Cybernétique et société : L'usage humain des êtres humains*. Paris : UGE, coll. 10/18, 1954, p. 31.

39 We can read about this subject in: KIERKEGAARD, S.: La repetition. In: *Oeuvres complètes de Soeren Kierkegaard*. 20 vol. Eds. P.-H. Tisseau, E. M. Jacquet-Tisseau. Paris : Editions de l'Orante, 1966, vol. V, III 212.

and true human innovations.⁴⁰ Could the evolved man or the “posthuman” be capable of thinking and judging in the Public Space like Hannah Arendt propose for humans?⁴¹ Are we assisting with the ideas of the transhumanism to the scientific control of the society or the emergence of biopolitics as Michel de Foucault describes?⁴² The ethical human creation would not attach sense to the technical civilization as Paul Ricoeur proposes in his book *Histoire et vérité*⁴³.

We conclude that we can only imagine the future. It is a “not yet” and a great adventure to perform for men. We can only work today for an enhanced, united and centralized humanity as Bostrom and Teilhard foresee. With Hans Jonas we repeat that we are nowadays responsible for the future of the world. We have clear duties about our posterity and our environment.⁴⁴

Bibliography

- ARENDR, H.: *Qu'est-ce que la politique?* Paris : Le Seuil, 1995.
- ARISTOTLE: *Ethique a Nicomaque*. Paris : Ed Vrin, 1987.
- BOSTROM, N.: “Transhumanists values.” https://ar.search.yahoo.com/yhs/search?hspart=avg&hsimp=yhs-fh_lsonsw&type=ch.50.w7.dsp.04-02.ar.avg._.0516tb¶m1=NVDLTsMwEPwVLvYtlp-xc
- BOSTROM, N.: “Human Genetic Enhancements : A Transhumanist Perspective.” In: *The Journal of Value Inquiry*, Vol. 37, 2003, pp. 493–506; <http://www.nickbostrom.com/ethics/genetic.pdf>
- BOSTROM, N.: “In Defence of Posthuman Dignity.” In: *Bioethics*, Vol. 19, 2005, Issue 3, pp. 202–214.
- BOSTROM, N.: “A History of Transhumanist Thought.” In: *Journal of Evolution and Technology*, Vol. 14, 2005, Issue 1.
- BOSTROM, N.: “The Future of Humanity.” In: *New Waves in Philosophy of Technology*. Eds. Jan-Kyrre Berg Olsen, Evan Selinger, Soren Riis. New York : Palgrave MacMillan, 2009, pp. 186–216.
- BOSTROM, N., SANDBERG, A.: “The Wisdom of Nature : An Evolutionary Heuristic for Human Enhancement.” In: *Human Enhancement*. New York : Oxford University Press, 2009.
- BOSTROM, N.: “Existential Risks Prevention as Global Priority.” In: *Global Policy*, Vol. 4, 2013, Issue I, pp 15–31.
- DELEUZE, G., GUATTARI, F.: *Mille Plateaux : Capitalisme et schizophrénie 2*. Paris : Minuit, 1980.

40 Cf. DELEUZE, G., GUATTARI, F.: *Mille Plateaux : Capitalisme et schizophrénie 2*. Paris : Minuit, 1980.

41 We find a summary of her thought in: ARENDR, H.: *Qu'est-ce que la politique?* Paris : Le Seuil, 1995.

42 Foucault develops this subject in: FOUCAULT, M.: *Sécurité, territoire et population*. Cours au collège de France 1977 – 1978. Paris : Le Seuil, 2004, p. 3.

43 RICOEUR, P.: “Civilisation universelle et cultures nationales.” In: RICOEUR, P.: *Histoire et Vérité*. Paris : Seuil, 2001.

44 Cf. JONAS, H.: *The Imperative of Responsibility : In Search of an Ethics for the Technological Age*. The University of Chicago Press Books, 1984.

- DRIOLLET, T.: *La libertad interior : Proyección de le Volontaire et L'involontaire en la obra de Paul Ricoeur*. Biblos, 2008.
- FLORIO, L.: *Teología de la vida en el contexto de la evolución y de la ecología*. Buenos Aires : Agape, 2015.
- FOUCAULT, M.: *Sécurité, territoire et population*. Cours au collège de France 1977 – 1978. Paris : Le Seuil, 2004.
- JONAS, H.: *The Imperative of Responsibility : In Search of an Ethics for the Technological Age*. The University of Chicago Press Books, 1984.
- KIERKEGAARD, S.: La repetition. In: *Oeuvres complètes de Soeren Kierkegaard*. 20 vol. Eds. P.-H. Tisseau, E. M. Jacquet-Tisseau. Paris : Editions de l'Orante, 1966, vol. V, III 212.
- LEVINAS, E.: *Totalité et infini : Essai sur l'extériorité*. Paris : Poche, 1990.
- MARCEL, G.: *Être et avoir*. Paris : Aubier, 1935.
- MARCEL, G.: *Le Mystère de l'être*. Paris : Aubier, 1961.
- MARCEL, G.: *Position et approches concrètes du mystère ontologique*. Paris : Librairie philosophique J. Vrin, 1949.
- RICOEUR, P.: *Histoire et Vérité*. Paris : Éditions du Seuil, 2001.
- RICOEUR, P.: *Soi-même comme un autre*. Paris : Éditions du Seuil, 1990.
- TEILHARD DE CHARDIN, P.: *Le phénomène humaine*. Oe. T. I. Paris : Éditions du Seuil, 1955.
- TEILHARD DE CHARDIN, P.: *Le milieu divin*. Oe. T. IV. Paris : Éditions du Seuil, 1957.
- TEILHARD DE CHARDIN, P.: Réflexions sur le Progrès (1941). In: TEILHARD DE CHARDIN, P.: *L'avenir de Homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, pp. 83–106.
- TEILHARD DE CHARDIN, P.: L'Esprit nouveau (1942). In: TEILHARD DE CHARDIN, P.: *L'avenir de Homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, pp. 107–126.
- TEILHARD DE CHARDIN, P.: Vie et Planètes (1945). In: TEILHARD DE CHARDIN, P.: *L'avenir de Homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, pp. 127–156.
- TEILHARD DE CHARDIN, P.: La formation de la Noosphère (1947). In: TEILHARD DE CHARDIN, P.: *L'avenir de l'homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, pp. 199–232.
- TEILHARD DE CHARDIN, P.: Le coeur du problème (1949). In: TEILHARD DE CHARDIN, P.: *L'avenir de Homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, pp. 337–350.
- TEILHARD DE CHARDIN, P.: Sur l'existence probable, en avant de nous, d'un Ultra-humain (1950). In: TEILHARD DE CHARDIN, P.: *L'avenir de Homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, pp. 351–364.
- TEILHARD DE CHARDIN, P.: Comment concevoir que se réalise sur terre l'unanimité humaine? (1950) In: TEILHARD DE CHARDIN, P.: *L'avenir de Homme*. Oe. T. V. Paris : Éditions du Seuil, 1959, pp. 365–374.
- TEILHARD DE CHARDIN, P.: *La place de l'homme dans la nature*. Oe. T. VIII. Paris : Éditions du Seuil, 1963.

WIENER, N.: *Cybernétique et société : L'usage humain des êtres humains*.
Paris : UGE, coll. 10/18, 1954.

prof. Dr. Teresa Driollet de Vedoya
Pontificia Universidad Católica Argentina
Facultad de Psicología y Psicopedagogía
Av. Alicia Moreau de Justo 1300
Buenos Aires, Argentina
e-mail: tdriollet@hotmail.com; tdriollet@gmail.com