EDITORIAL

THE FUTURE OF MAN IN THE TECHNO-SCIENTIFIC ERA: PHYSICAL CONSTITUTION, HUMANISTIC AND SPIRITUAL DIMENSIONS

What is man? For many centuries human nature was understood within the framework of Greek philosophy. It was an anthropology that we could call, for the most part, Platonic-Aristotelian. It was not the only way to understand the man; atomism, the materialism of the four elements, stoicism... were noteworthy alternatives. But the Platonic-Aristotelian paradigm was the one that had the most historical importance. Plato influenced Aristotle, but both philosophies were dualistic: beings and man were made up of two absolutely irreducible co-principles. The Platonic soul and matter and the Aristotelian form and matter.

This way of thinking dominated Roman culture at the time of the birth of Christianity. In the patristic, a type of image of man related to a Platonic-Plotinian thought dominated, although the stoa was also present in significant authors. But the birth of scholastic philosophy, from the eighth century led to a predominance of Aristotle in the Christian world, highlighting the figure of Thomas Aquinas.

This way of understanding man reached the end of the Middle Ages. With the Renaissance, the European world, dominated until then by Christian anthropology, was looking for alternatives that yearned for emancipation from the Platonic-Aristotelian and Christian world. It was oriented towards a materialist monism, from Hobbes to the Encyclopedic Enlightenment materialism of the 18th century. In the 19th century, the evolutionary paradigm was imposing itself with force and vitalist thoughts appeared that exalted the vital force of the *Évolution Créatice* (Bergson).

However, since the middle of the 20th century, the appearance of computer hardware and software led to the application of the computer model to living beings and to man. Thus, sticking to man, the computational theory of man was born, inspired either by the serial-algorithmic model or by the connectionist model of layers of artificial neurons (PDP). Computationalism revived something that was in a crisis of survival: the mechanistic-deterministic materialism of previous centuries. This computational materialism has been confronted, throughout the 20th century, by the persistent non-robotic image of man as a living being. Its support has been the neurological evidence of an evolutionary-emergentist paradigm of neural networks (although a very small part of neurology, the so-called neural determinism, has passed over to computationalism).

This being the case, in the last part of the 20th century, with some imprecise previous precedents, the so-called transhumanist thought has appeared, especially from the work of the great computational engineer and philosopher, Ray Kurzweil. Transhumanism is a radical form of computational anthropology. Its basic idea is that, at the same time, man will grow exponentially in his computational possibilities and, in parallel, the construction of computational machines that simulate man, in the construction of cyborgs and in external computational networks,

will also grow exponentially. All this will lead to the appearance of transhumanist theses: namely, the appearance of a new time, the Singularity, in which machines and man will converge in a new human nature, the nature of spiritual machines. A new human nature will have appeared, different from the previous one, in which man will even have the path to immortality open.

This extraordinary number of PENSAMIENTO, volume 10 of the Science, Philosophy and Religion series, publishes, in the form of articles, the presentations of the Conference on *Transhumanism and Improvement* that took place from May 29 to 31, 2019, at the Hana and Francisco José Ayala Chair of Science, Technology and Religion, at the School of Engineering of the Comillas University, Madrid. He also publishes many other materials that have come to PENSAMIENTO.

The authors who collaborate in this number, with the nuances of each one, defend that no limits are placed on techno-scientific progress. It will be an immense improvement in the struggle to overcome human suffering. But none of the advances, many of great importance, allow us to think that a change in human nature has occurred, or is about to occur, along the lines of what transhumanism postulates, the appearance of the crucial point of the Singularity. Science does not offer arguments and objective evidence that this is going to be the case. On the contrary. However, the improvement of the human condition will continue its course with surprising contributions in favor of humanity. There are no limits, only moral ones, to what science is capable of doing. We do not believe, then, in the transformation of transhumanist human nature, but we do believe in the enriching and constant improvement and extension of human nature as always, understood as science explains today.

One of the contradictions of transhumanism is that it applies the strong metaphor of the computer within a mechano-deterministic robotic conception, becoming the continuator and savior of classical nineteenth-century materialism. But the most contradictory thing, as is very clear in Kurzweil, is that he rejects the path of reflection on quantum engineering, that is, on the only path that could perhaps lead to something of transhumanism becoming possible.

The first part of this volume presents contributions to understand the psycho-bio-physical nature of man. The second contains the basic contributions, presented at the Conference, to weigh the insufficiency of the transhumanist proposals. The third part reflects on the humanistic horizon that opens with the progress of the improvement of the human condition. The fourth part is contributions on the legal problems created in the techno-scientific era. Finally, in the fifth part various materials that have arrived at the Pensamiento magazine are collected that complement, from classical authors and philosophical topics, the in-depth reflections that are provided in this extraordinary number.

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