



Quo Vadis Science? Science and Ethics ?

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Abstract

My brain is only a receiver, in the Universe there is a core from which we obtain knowledge, strength and inspiration. I have not penetrated into the secrets of this core, but I know that it exists. If you want to find the secrets of the universe, think in terms of energy, frequency and vibration. (Nikola Tesla, 1937).

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Introduction

According King (2013) by the end of his brilliant and tortured life, the Serbian physicist, engineer and inventor Nikola Tesla was penniless and living in a small New York City hotel room. He spent days in a park surrounded by the creatures that mattered most to him pigeons and his sleepless nights working over mathematical equations and scientific problems in his head. That habit would confound scientists and scholars for decades after he died, in 1943. His inventions were designed and perfected in his imagination. Tesla described his sensational plans as follows: *"As soon as completed, it will be possible for a business man in New York to dictate instructions, and have them instantly appear in type at his office in London or elsewhere. He will be able to call up, from his desk, and talk to any telephone subscriber on the globe, without any change whatever in the existing equipment. An inexpensive instrument, not bigger than a watch, will enable its bearer to hear anywhere, on sea or land, music or song, the speech of a political leader, the address of an eminent man of science, or the sermon of an eloquent clergyman, delivered in some other place, however distant. In the same manner any picture, character, drawing, or print can be transferred from one to another place. Millions of such instruments can be operated from but one plant of this kind. More important than all of this, however, will be the transmission of power, without wires, which will be shown on a scale large enough to carry conviction."*

But ultimately, Tesla found himself in a world where illusion was expected to be followed by useful, profitable hardware. And when he could no longer deliver things that the real

world of 1910 needed, he turned instead to mystical utterances that attracted attention, but no money. Tesla's life is a cautionary tale for anyone who wants to understand what the right mix of technical prowess, vision, and hard work can do and what happens when illusion overwhelms ideals.

Reality

Prashant Kashyap (2007) wrote that ethics, according to the definition quoted in footnote¹, would depend on beliefs held by individuals or a group of individuals; whereas, science² is a search for truth – which may contradict even the most popular beliefs. He claimed that society, more or less, defines the ethics – of work, of politics, of business. Therefore, the relationship between science and the ethics is close to that between science and the society. The relationship between science and the society is nothing short of a flummoxing revelation. Science, in an effort to go beyond the dogmas, withdraws itself from the society. Thereafter, science has (rather both science and the scientists have) an independent status. Science discovers the facts (the truth) or invents based on the facts – sometimes reaffirming the beliefs, and at times refuting them. Having produced something (which can be consumed as a theory or a product), science goes back to the society in search of audience – the consumers. This cycle enables new things to be created. If science were not separated

¹The principles of right and wrong that are accepted by an individual or a social group.

² The intellectual and practical activity encompassing the systematic study of the structure and behaviour of the physical and natural world through observation and experiment.



from the society, we would have still believed earth the centre and everything else going around it. There would have been no Galileo's if science could not withdraw from the society – in effect from the religion. In an attempt to reconcile in his mind the contradiction between the eternal and beginningless on one hand, and his own existence as a permanent category with a clearly determined beginning on the other, man decided to give up the concept of beginningless bound himself to the concept stating that everything has its beginning and determine the zero point of the beginning of everything. Astronomers calculate the age of the Universe by assuming that the Lambda-CDM model accurately describes the evolution of the Universe from a very uniform, hot, dense primordial state to its present state and measuring the cosmological parameters which constitute the model (Liddle, 2003). This model is well understood theoretically and supported by recent high-precision astronomical observations such as Wilkinson Microwave Anisotropy Probe (WMAP) and Planck (space observatory operated by the European Space Agency (ESA) from 2009 to 2013, which mapped the anisotropies of the cosmic microwave background (CMB) at microwave and infra-red frequencies, with high sensitivity and small angular resolution). Commonly, the set of observations fitted includes the cosmic microwave background anisotropy, the brightness/redshift relation for Type Ia supernovae, and large-scale galaxy clustering including the baryon acoustic oscillation feature (Eisenstein, D.J. et al, 2005). Other observations, such as the Hubble constant, the abundance of galaxy clusters, weak gravitational lensing and globular cluster ages, are generally consistent with these, providing a check of the model, but are less accurately measured at present. With the prior that the Lambda-CDM model is correct, the measurements of the parameters using a variety of techniques by numerous experiments yield a best value of the age of the Universe as of 2015 of 13.799 ± 0.021 billion years (Spergel, 2015).

This approach has led to the emergence of the rationalistic and anthropocentric approach which definitively wrenched off mankind from the community with the entirety of the material world and placed him in the position of the supreme ruler of all that has been created, to whose ratio it must subdue. All scientific capacities have been put into this service and today they are serving to deepen and justify this rogue position. The ability of a man to act and consciously change his environment has deepened his illusion that by discovering scientific laws he will be able to manage them, change them and subdue everything to himself and his needs (e.g. nuclear energy, cloning...). This approach, as well as the role and position defined in this way have led to the creation of anthropocentric ethics³ which nowadays prevails in scientific

³ *Anthropocentrism is a theory that believes humans are the centre of the universe. Its essence is that everything is centred on humans or evaluated by human measures and serves human interests, and starts from human interests. Webster's New World Dictionary defines anthropocentric as: "considering man to be the central or most significant fact of the universe; assuming man to be the measure of all things;*

circles and which essentially serves as a justification for such an approach. The very establishment of such ethics and the attempt to apply it by scientific circles has resulted in a schizophrenic position of man towards the Universe and the planet to the brink of disaster, as well to the paradox that this kind of scientific and technological progress based on the postulate that ethics is the exclusive product of human mind, has made humans primitive⁴. The outcry of part of the scientific community that this is simply not the way to go and that we are inevitably drifting into catastrophe clearly points to the foolishness of the belief that ethics can only arise in the human mind.

New direction

The first scientist who seriously opposed this approach was Nikola Tesla⁵. He pointed to the fact that ethical anthropocentrism can lead only to catastrophe, pointing to the indisputable fact that a man should return to the community with the Universe, understand its laws and live in harmony with them. Tesla writes: *Aristotle taught that there is a fixed 'entelechie' in the universe that drives everything and thought is its main attribute. I am also confident that the whole cosmos is united both in material and spiritual terms. There is a core in the universe from where we get all the strength, all the inspiration, it attracts us eternally, and I feel its power and the values that it releases across the entire universe, keeping it in harmony. I did not reveal the secret of this core, but I know that it exists and when I want to assign it a material attribute, then I think that it is light, and when I try to understand it spiritually, then it is beauty and compassion. The one who has this faith, feels strong, his work makes him*

Interpreting or regarding the world in terms of human values and experience."

⁴ *Anthropocentrism is imperfect ethically. According to the above views, traditional ethics believed that only humans had goals; therefore, only humans received moral treatment and enjoyed moral rights. Anthropocentrism believed that human features, such as reason, self-consciousness, self-control, and the ability to communicate through symbols, were the basis for humans to be treated morally. Critics said that some humans, such as infants, the retarded, and Alzheimer patients, and vegetables did not have these abilities; and that intelligence, use of tools, and self-consciousness were characteristic of both humans and some animals. Therefore, the status of moral object should be expanded to include life and the nature.*

⁵ *Nikola Tesla, (born July 9/10, 1856, Smiljan, Austrian Empire—died January 7, 1943, New York, New York, U.S.), Serbian American inventor and engineer who discovered and patented the rotating magnetic field, the basis of most alternating-current machinery. He also developed the three-phase system of electric power transmission. He immigrated to the United States in 1884 and sold the patent rights to his system of alternating-current dynamos, transformers, and motors to George Westinghouse. In 1891 he invented the Tesla coil, an induction coil widely used in radio technology.*

happy because he perceives himself as a part of the universal harmony.

In this way, he clearly defined both the essence and purpose of science and made it clear that the principles of the Universe are also the ethics of the Universe, and that principles of the Universe can only be understood and accepted by man, and by no means be the creation of his mind. Thereby, he established the principle of scientific determination of ethics of the Universe, and explained that the tiniest supposed or identified particle, and even man, acts according to this principle, and that such acting also contains the ethics of the Universe. Only understanding and acceptance of the fact that man is in unity with the Universe abolishes the today's schizophrenic position of man in relation to all around him and introduces him into meaningful scientific, and thus ethical norms of the Universe, that are reflected in the laws of his actions. This approach allows man and the science itself to simply resolve the conflict between the category of eternal and beginningless and his current position of the seeker of the zero point, i.e. seeker after the beginning of something that has no beginning. Only understanding the fact that he is in unity with the beginningless enables man to accept his position and understand the true role of science. Understanding the laws of the work of the Universe also creates the acceptance of ethics of the Universe and makes the ethics created in his mind meaningless. This understanding illuminates the meaning of the Biblical teaching about the exile of Adam and Eve from Paradise. Paradise in fact is the state of man in unity with the Universe and life in accordance with the laws and ethics of the Universe. The moment when man picked the apple from the tree of the knowledge of good and evil, that is, put himself in the centre of everything, he created his own ethics, deviated from the ethics of the Universe, his life and actions according to the ethical laws of the universe have ceased.

Conclusion

In this way, we come to a new definition of ethics which is very simple: Ethics is a science (or science is ethics) that studies the laws of the Universe and on the basis of knowledge forms the consciousness of man about his unity with the Universe and his life in that unity. Defining ethical

behaviour and acting is then very simple! If we assume on the basis of the presented arguments that this concept of science can be equated with ethics, and the concept of ethics can be equated with the laws of the Universe, it simply implies that science is equal to the constituents of the laws of the Universe.

SCIENCE = ETHICS

ETHICS = LAWS OF THE UNIVERSE

From which, it follows that:

SCIENCE = LAWS OF THE UNIVERSE

Humanity is not an artificial product, it is not self-created. Every natural (scientific) law is, of course, a cosmic law, and therefore understanding of this law is generally human. Why? Because what we consider to be the laws of physics are actually the laws of universal ethics, higher cosmic morality, whose nature is mathematically and forever given in the eternal present, in other words, from the human level, it cannot be influenced.

Compliance with Ethical Standards

- There is no conflict of interest
- There is no fundings
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- No human subjects

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