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Title: ANTHROPOCENTRISM OF THE PHYSICAL UNIVERSE

Abstract:

It is interesting to answer to the question: What are the most important, the most general Principles in physics? Considering the importance of the Theory of Relativity and of Quantum physics, we could guess that the main Principles of those theories are also the most important in physics. But we will propose a new principle, called Principle of Anthropocentrism in Physics (PAS), that appears to be more important. Indeed we will see how all fields of physics appear to be consequences of the PAS. We then will show that an analysis of the most important Principles of physics leads to the conclusion that Universe is anthropocentric, and also that the apparition of human being was programmed since the beginning of the Universe, 15 billion years before the apparition of mankind. To end we will see the implications of the anthropocentrism of the Universe, in life science and in astrophysics.

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## 1.INTRODUCTION

In this article, we will first consider the question: “What are the most fundamental Principles in physics?”.

After having reminded 2 Principles in Relativity and Quantum physics, that are very important, we will propose a third new Principle, called Principle of Anthropocentrism in Science (PAS), that appears to be more important and more general than the 2 previous Principle. We will see that from the PAS, we can deduce aspects and properties of the physical Universe, in particular the form of the physical laws and the 1<sup>st</sup> Principle of Relativity itself.

After having analyzed the 3 previous Principles, we will show that it appears a common point, very important, to those 3 Principles. We will show that this leads to the conclusion that the Universe is anthropocentric, and also to the conclusion that the apparition of human being in the Universe was programmed 15 billion years earlier. We will then show that life science and its own laws appear also as a consequence of the anthropocentrism of the Universe and of the PAS.

## 2.THE PRINCIPLE OF ANTHROPOCENTRISM IN SCIENCE (PAS)

Presently, Physics are built on 2 main pillars, the first being the Theory of Relativity and the second one being Quantum Physics.

We remind that the 1<sup>st</sup> Principle of Relativity expresses that all the physical laws remain the same for any observer at rest in a Galilean Referential (renamed “inertial Referential by Einstein). The main Principle of Quantum Physics expresses that systems are in indeterminate state before being observed, but that after having been observed, a physical variable is determinate.

We could think that those 2 Principles are the most general and the most important. It is not the case: Indeed, a third Principle, called Principle of anthropocentrism in the Universe (PAS, we will see further the origin of its name), is more general and more important:

#### PRINCIPLE OF ANTHROPOCENTRISM IN SCIENCE:

Physical Universe is constituted in a way that permits to an observer to predict in a very easy way (among and in comparison with all the ways that could have existed) the result of his observations.

All physical laws and physical Principles appear to be consequences of the PAS.

For instance, we saw that according to the 1<sup>st</sup> Principle of Relativity, an observer at rest in a Galilean Referential can always apply the same physical laws, whatever be the Galilean Referential, in order to predict the result of his observations. So it is clear that this 1<sup>st</sup> Principle of Relativity implies a very easy way for an observer at rest in a Galilean Referential to predict the results of his observations (among and in comparison with an infinity of ways that could have existed with the 1<sup>st</sup> Principle of Relativity being no valid). So the 1<sup>st</sup> Principle of Relativity appears to be a consequence of the PAS.

The fact that physical laws do not change with time appears also to be a consequence of the PAS. Indeed an observer, if he knows some physical laws, can apply them at any time in order to predict the results of his observations, which implies for him a very easy way to make those predictions (among and in comparison with an infinity of possible ways that could have existed with physical laws changing with time).

The mathematical simplicity of physical laws appears also as a consequence of the PAS. For instance in gravitation, the law of Gravitational attraction:  $\mathbf{F} = GMm/r^2 \mathbf{u}$  is very simple among and in comparison with the infinity of laws that could have existed as for instance  $\mathbf{F} = G(Mm)^{1/2}/r^{3/2} \mathbf{u}$ .

The fundamental law of dynamics  $\Sigma \mathbf{F} = m\mathbf{a}$  is very simple among and in comparison with all laws that could have existed as for instance  $\Sigma \mathbf{F} = m\mathbf{v}\boldsymbol{\gamma} + \mathbf{v} \dots$  ( $\mathbf{v}$  velocity)

In thermodynamics the law of ideal gas  $PV = nRT$  is very simple among and in comparison with all laws that could have existed as for instance  $P^{1/3}V^2 = nRT^3$ ..

In electricity the thermal power (Joule effect)  $P = RI^2$  is very simple among and in comparison with all laws that could have existed for instance  $P = RI^{1/3}$ ..

In quantum physics, the wave equation  $H\Psi = E\Psi$  (Schrodinger's equation),  $H$  being the Hamiltonian is also obviously very simple among all wave equations that could have existed.

In fluid mechanics, equations also are very simple, among and in comparison with all equations that could have existed.

In electromagnetism, some equations appear to be consequences of the 1<sup>st</sup> Principle of Relativity, but we have seen that this Principle was also a consequence of the PAS.

In general Relativity, the Einstein's tensor is also very simple among and in comparison with all tensors that could have been valid.

So simplicity of physical laws implies for an observer a very simple way, (among and in comparison with the infinity of other ways that could have existed if the physical laws had been more complicated) in discovering them and applying them and consequently in predicting the results of his observations (trajectories of planets, variables of ideal gas,

thermal power dissipated, energy of an excited electron in an atom, trajectory of a rocket, trajectory of an electron in a magnetic field...)

In particle physics, we know that all interactions (electromagnetic, weak and strong) have the same mathematical frame (Gauge theories). This permits to an observer knowing only the simplest interaction (electromagnetic), to generalize its mathematical frame in order to obtain the mathematical frame of other interactions. This implies a very easy way to discover them (among and in comparison with all the ways that could have existed if the 3 interactions had not the same mathematical frame (Gauge theory)). So the unity of the frame of the 3 interactions appears also as a consequence of the PAS, because it permits a very easy way (among and in comparison with all ways that could have been possible if this mathematical unity did not exist) to predict observations connected o those interactions (scattering of particles, disintegration of particles...).

The PAS permits also to predict which theory is more likely to be the good one, if we have 2 theories explaining both some physical phenomena. Generally, it is the simplest and the most elegant that is the good one.

For instance in time of Galileo, the theory of the Italian scientist and the theory of Aristotle predicted both many different observations. But the theory of Galileo was the simplest and the most elegant and it revealed to be true despite that the theory of Aristotle was admitted by most scientists of this time.

Presently in astrophysics, the Standard Cosmological model <sup>(1)</sup> (SCM) and the Cosmology based on ether (CBE) <sup>(2)(3)</sup> predict both many observations. Both theories are compatible with all observations connected to Relativity and Quantum Physics and SCM is admitted by nearly the whole of the community of astrophysicists. But the CBE is much simpler than the SCM (It does not use the complex mathematics of General Relativity, it does not need a Cosmological constant nor dark energy, it is based on a very simple topological form of the Universe) and consequently the CBE should be the good one.(As Galileo's theory had also predictions in agreement with observation not predicted by the theory of Aristotle, the CBE has also predictions in agreement with observation not predicted by SCM ( Nature of dark matter, rotation curve of Galaxies, Tully-Fisher's law, Referential in which fossil radiation is isotropic).

Also CBE <sup>(2)</sup> and MOND theory <sup>(4)</sup> predict both the flat rotation curve of many spiral galaxies (velocity of stars is independent of their distance to the center of the galaxy). But in MOND theory, the simple Newton's law of gravitational attraction that we reminded previously is not valid at great distances, despite that it remains valid in CBE. So according to the PAS, CBE is likely to give the good theoretical justification of the flat rotation curve of many spiral galaxies.

#### 4.THE ANTHROPOCENTRISM OF THE UNIVERSE

We remark that the PAS was valid since the beginning of the Universe, because as we remarked previously the physical laws do not change with time. And we have the fundamental remark concerning the 3 fundamental Principles that we proposed:

“The 1<sup>st</sup> Principle of Relativity, the Principle of quantum Physics that we reminded in Section 2., and the PAS have something in common: They use and they are based on the concept of **observer**.”

(It could be possible to express the 1<sup>st</sup> Principle of Relativity without using explicitly the concept of observer, but this concept would be implicitly used , because an observer is the onlyone that can apply laws. Moreover, we have seen that this Principle is a consequence of the PAS, which is explicitly based on the concept of observer).

But we cannot conceive an observer without life and the only living being that is able to observe the Universe, and that is consequently able to apply physical laws, is the human being. Indeed, an observer must own a conscience, and moreover he must be as intelligent to conceive and solve mathematical equations and to build some devices (complex) in order to make observations. Obviously the human being is the only one living being (known) that owns the required intelligence to be an observer.

So we see that from the beginning of the Universe, all physical laws were in agreement with a Principle based on the existence of an observer identified with a human being, who finally appeared 15 billion years after the beginning of the Universe. Even when baryonic particles did not exist, the physical laws of the Universe were based on an observer identified to the human being, who is the only living being that is able to apply physical laws and to find them in order to observe the Universe.

The only explanation of the validity from the beginning of the Universe of the PAS and of other fundamental Principles based on the concept of observer is that from the beginning of the Universe, the destiny of the Universe was to be observed by an observer, which means by the human being, which is the only observer of the Universe.

Consequently the existence of the human being was programmed from the beginning of the Universe. This programming of the existence of human being appears to contradict the Darwinist theory of evolution, and in particular the point that the apparition of human being is the result of random evolution.

It is a common idea to say that human beings are completely insignificant compared with all galaxies of the Universe. But this common idea is wrong: If we consider the volume, the mass of human beings, or even the time since they exist, those values are clearly insignificant compared with the mass, the volume and the time since exist galaxies. But we saw that according to the validity of PAS, the constitution of the Universe is not based on galaxies, but on the human being.

In order to live the human being needs to be at a defined temperature. Consequently he cannot live on stars, because otherwise he would burn. But he needs to live sufficiently close to a source of heat to be at the required temperature. So it appears that stars and planets were necessary to the apparition of human being. Consequently, because the existence of human being was programmed since the beginning of the Universe, the existence of stars and planets, necessary for the existence of human being, were also programmed since the beginning of the Universe.

## 5.THE ANTHROPOCENTRISM IN LIFE SCIENCE

We can remark that life science is in agreement with the PAS: Indeed laws in biology are as simple as possible (The constitution of living being is very simple among all the constitutions that could have been possible) and they do not change with time. Moreover, the ADN permits to an observer to predict many characteristics of the living being corresponding to this ADN. In particular it permits to predict to which kind of living being it belongs.

The human being, in order to live, needs to eat some animals, plants... Moreover he needs to breathe oxygen, that is produced by plants. Consequently the existence of animals and plants was also programmed since the beginning of the Universe, because of the programming of human being.

The fact that it exists a code (ADN) that permits to obtain a human being, according to the laws of the physical Universe (called "laws of nature" in life science) appears also to be a consequence of the programming of the existence of human being since the beginning of the Universe. We remark indeed that those laws of nature were valid 15 billion years before the apparition of the human being.

## 6.CONCLUSION

So we have proposed a new and fundamental Principle, the PAS, which seems to be the most important and general Principle in physics. We saw that the laws of Universe, in their expression and in their existence, appear to be consequences of the PAS. We have seen that not only the PAS, but also the most important Principles of Relativity and Quantum physics are based on the existence of human being, having a conscience and the faculty of solving and discovering mathematical equations and also the faculty to build some devices (complex) that are necessary to make observations. We saw that the fact that the Universe was based on the concept of human being since its beginning led firstly to the conclusion that the physical Universe was anthropocentric and secondly that the existence of human being was programmed also since the beginning of the Universe (Big-Bang). We saw that those conclusions contradicted the very largely admitted idea that human kind was the result of random evolution (as according to the Darwin's theory).

Finally we make appear how the anthropocentrism of the physical Universe and the programming of human being manifest themselves in astrophysics and in life science.

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