

The Biophysical Modelling of the Big Band

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Abstract

The Euclidean contradiction was solved by János Bolyai (1802–1860): he transformed virtual Euclidean geometry into physical reality by reformulating parallelism. At the same time, he moved from the interpretation of the finite to the interpretation of the infinite, which became a key element in the scientific and theoretical models of creation, as well as in the formulation of the theory of relativity in physics and became the cornerstone of the development of astronomy. Today, the most accepted scientific model of the universe is the so-called hot universe or “Big Bang” theory. Creation goes beyond its narrow meaning, because it includes birth, life and death. There is no mercy in creation! Not from a religious or scientific point of view. Neither the scientific nor the religious understanding of creation excludes the concept of re-creation! The possibility of re-creation is a perfect parallel between the two approaches. According to both theories, we need to highlight the order. According to the Bible, human is the only species created by God in His own image.

Keywords: biophysical modelling, Big Bang, parallelism

INTRODUCTION

Who am I, the human being? Why am I here on Earth? How do I relate to my environment? What do space and time mean to the human? What is the difference between reality and my thoughts? What do I feel and what does my fellow human being feel? Why are we born, why do we live and die? What are the past, present and future?

The deductive path, in this case, starts from one’s own world of thought, which is nothing other than the world of faith. I believe this to be true. [1] I believe I am. I believe I am doing the right thing. I believe that there is a higher power who will sort out my affairs in one way or another. The importance of this is huge because it takes the responsibility off your shoulders. I was doing their will when I did something wrong. But I praise myself when I get something right. Self-deception sets in because you do not hold yourself responsible for your actions. [2]

The inductive way of thinking starts from the environment, observes phenomena, tries to interpret them, and establishes new relative true laws. These laws are passed on from generation to generation, and it turns out that what was true yesterday (in the past) is no longer true today (in the present). /Euclidean geometry → Bolyai geometry; geocentric → heliocentric; the indivisible atom → elementary particles; alchemy - nuclear fission/. The study

of this process of cognition is called science. A very important discovery of science was that scientific truths are always relative, because there is no absolute truth, and what is true from one point of view is false from another. [3]

The parallelism

In this paper, we will examine a single human concept: the concept of **Creation**, from the perspective of religion and science. So we are trying to draw a parallel between the creation of the biblical world and one of science’s most accepted – the internationally most recognized – “universe creation” models, the Big Bang theory. [4]

The creation of the world is described in the Bible in 31 passages. [4] The number of sections does not affect the content, only the order. We will refrain from quoting this biblical text in detail.

The Big Bang theory was discussed in detail in Volume 7 [5] of our own 60-volume *Biofizika* (Biophysics) monograph series, subtitled: *Az élet fizikája* (The physics of life). [6]

The title of this article refers to two very important concepts: creation and parallelism. Both concepts have been addressed by some of the greatest human thinkers, and their investigative

reflections have made an incredible contribution to the intellectual scholarship of mankind.

Euclid, who lived around 300 BC, elevated mathematics to a special status with his system of axioms. Mathematics has become a universal language, unaffected by external circumstances and human behaviour. For more than two thousand years, the axiom of parallelism introduced in this axiom system proved to be an insoluble problem for mathematicians. János Bolyai (1802–1860) resolved the contradiction and transformed virtual Euclidean geometry into physical reality by reformulating parallelism. At the same time, he moved from the interpretation of the finite to the interpretation of the infinite, which became a key element in the scientific and theoretical models of creation, as well as in the formulation of the theory of relativity in physics and became the cornerstone of the development of astronomy.

Today, the most accepted scientific model of the universe is the so-called hot universe or “Big Bang” model, pioneered by Gamow, Alpher, Hermann, Friedmann, Bethe, Hoyle, Dicke, and many others after World War II. [7, 8, 9]

Like all models, it starts from a few basic principles:

1. The universe – system.
2. This system is isotropic and homogeneous.
3. The interactions we know can propagate at the maximum speed of light.
4. We extrapolate in space and time from the laws of the environment as we know it.
5. The upper limit of density is considered to be 10^{94} g/cm³ because above this the current theory of gravity no longer applies.
6. Extrapolating the temperature above 10^{15} K° makes no sense. The system has no memory, no trace of its past.
7. Within this model, the expansion can be followed backwards in time up to $t = 10^{-44}$ s.
8. Creation goes beyond its narrow meaning because it includes birth, life, and death. There is no mercy in creation! Not from a religious or scientific point of view.

The Big Bang

We put the “birthday” of today’s universe at 15–16 billion years ago. Based on the redshift, the universe is in an expanding phase, followed by a shrinking phase. An entire period is estimated at 40 billion years.

The current universe will be followed by more and more universes. Neither the scientific nor the religious understanding of creation excludes the concept of **re-creation**! The possibility of re-creation is a perfect parallel between the two approaches.

The Hungarian fiery revolutionary poet Sándor Petőfi (1823–1849) envisioned it this way [10]:

Véres napokról álmodom,
Mik a világot romba döntik,
S az ó világnak romjain
Az új világot megteremtik
(I dream of bloody days,
That ruin the flower,

And on the ruins of the old world
A new world will be made.)
In the beginning God created the heavens.

We can accept that the universe goes through very dense states, and describe its behaviour as if it were pure photon gas.

As far as we know today, both the term “skies” and “photon gas” are abstractions. We don’t know where the sky is, and photon gas is a proxy for the Big Bang model that no one has seen before. In the beginning, God created the heaven and the earth 300,000 years after the starting moment, the photon epoch is over and the first stars are formed. According to both theories, we need to highlight the order. First, there is the photon gas, which condenses into stars while the sky precedes the creation of the earth.

And God said: Let there be light. God divided the light from the darkness 300,000 years after the starting moment, the photon epoch ends and from then until the first stars form, the universe is dark and increasingly cool (temperatures less than 3000 K)

We wish to draw attention to the order: light precedes darkness, in both cases.

The great Hungarian poet giant, Mihály Vörösmarty (1800–1855), wrote succinctly [11]:

... a sötétben túl van a világ. (... beyond the darkness is the world)

The word-formation of the Hungarian language has enormous potential for word games. Here is a word game:
világ (world) – világ-osság (lightness)

The Sun and the Moon

Science says: the stars, followed by the two big luminous bodies. According to science, the Sun and the Moon. Some stars formed 15 billion years ago, but the vast majority of them have since died out. The lifetime of our Sun (star) is 5 billion years. The Moon has a lifetime of 4.5 billion years, the same as Earth’s. These two formations (Sun, Moon) have a greater influence on life on Earth than all the stars in the Universe put together. Here we highlight the correspondence of order between the two hypotheses because stars (the luminous bodies) appear earlier than our Sun and Moon.

We would like to point out that the biblical creation of the world pays special attention to water because it returns to water in various forms in passages 6, 7, 8, 9, and 10. As science stands today, life on Earth – originated in water! There is full agreement between the two methods, because of the emphasis on the importance of water. An interesting bit of arithmetic: 70.8% of the Earth’s surface is covered by water, 70% of newborn babies’ bodies are *water*.

Two organisms of different sexes in the same species create the potential for the maintenance of the species. The Bible repeats it in several paragraphs (21, 24, 25) in different forms. In both the plant and animal kingdoms, the two sexes play a crucial role in ensuring the survival of a species. And God said: Let Us make man,... to rule over the fish of the sea and the birds of the air, over the livestock, and over all the earth itself and every creature that crawls upon it. Biological evolution: There have lived about 10 million species on Earth, over the last 3.7–3.9 billion years.

According to the theory of evolution, the human species appeared at the latest. [12]

It is a perfect coincidence that the human is the last species to appear, both in the biblical creation and in biological evolution!!! So God created man in His own image; in the image of God, He created him...

There have lived about 10 million species on Earth, and only the human race possess such high intellectual and psychic gifts, that no other species in nature has been endowed with by evolution. All this was achieved in a very short time by the human race, estimated at around 500,000 years. Only the human race understands the concepts of science and religion!

A shocking clash between religion and science. According to the Bible, human is the only species created by God in His own image. A specific discrimination of the idea of religious creation. According to biological evolution, the human species is the only one capable of high levels of intellectual activity and endowed with exceptional psychic qualities. [13]

The male and female

So God created man in His own image; in the image of God He created him; male and female He created them.

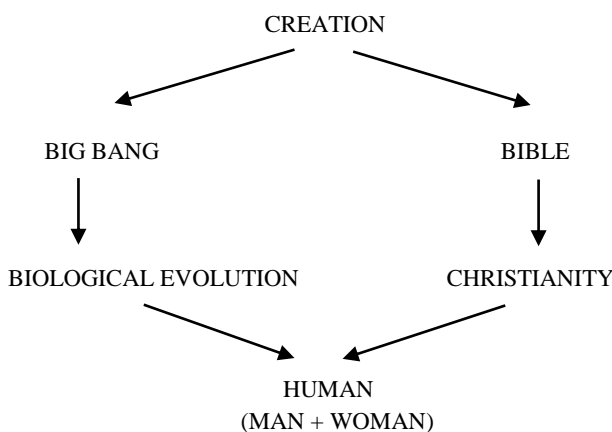
The two basic laws of biology [14]:

- 1) All living individuals should strive to keep themselves alive.
- 2) All living individuals, including humans, have a duty to maintain their species.

So humans have a fundamental obligation to lead a lifestyle that maintains their ability to reproduce.

There is perfect harmony between religion and science. God blessed them and said to them, “be fruitful and multiply, and fill the earth and subdue it; rule over... The purpose is clear: the human race has two different sexes, to reproduce and multiply!!!

There is perfect harmony between religion and science. This harmony cannot be overridden by creeping legislation!!! Neither religion nor science recognises as supreme law the legal make-belives formulated by people in various social forms. Both the Church and science accept only the union of man and woman.



References

1. Vincze J., Vincze-Tiszay G.: The Biophysics is a Borderland Science. *Roum. J. Appl. Scien. Tech.* 2020; (2)3:115–121.
2. Vincze, J.: *Medical Biophysics*. NDP P., Budapest, 2018.
3. Vincze J., Vincze-Tiszay G.: The Human organism is a Biopsychical-Biopsychological System. *Technium*. 2020; 2(7):29–35.
4. Károli Gáspár: *Holy Bible*. (Hungarian version. *Szent Biblia*. Edition concatenated and revised with the original text.) Alföldi Nyomda Rt., Debrecen, 2014.
5. Vincze J.: *Biophysics*. Vol. 7. NDP P., Budapest, 2005.
6. Vincze J.: *The physics of life*. (Hungarian, *Az élet fizikája*. Enciklopédia K.) Budapest, 1978.
7. Bertalanffy, L. von: *General System Theory*. New York: George Braziller, 1968.
8. Bertalanffy, L. von: Der Organismus als physikalisches System betrachtet. *Naturwissenschaften*, 1942; 30:1–36.
9. Boulding, Kenneth E.: General Systems Theory – the Skeleton of Science. *Management Science* 1956; 2(3): 197–208;
10. Petőfi, S.: *Poems*. Szépirodalmi K, Budapest, 2006.
11. Vörösmarty, M.: *Poems*. Szépirodalmi K, Budapest, 1986.
12. Vincze, J., Vincze-Tiszay, G.: The Biophysics is a Borderland Science. *Philosophy Study*, 2021; 11(5): 351–362.
13. Vincze, J., Vincze-Tiszay, G.: Some Aspects of Sciences from the Biophysical Point of View. *Int. J. Software & Hardware Engin.* 2020; 8(9):103–108.
14. Vincze J., Vincze-Tiszay, G.: The Biophysical Adjustment in the Human Organism. *J. Med. Res. Case Report*, “2020; 2(3)1–7.