

ETRENTY IS NOW

The Theory of Atemporality

Time is a Measure of Motion in Atemporal Space

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Abstract

The main insight of the Theory of Atemporality is that stellar objects move in atemporal cosmic space and that time exists only as a measure of motion. With clocks one measures duration and numerical order of this motion. Time is what is measured with clocks: duration and numerical order of motion of elementary particles and massive bodies in space. In the Theory of Relativity, time as the “fourth coordinate” describes motion of massive objects and elementary particles in space. In this sense the fourth time coordinate is the “coordinate of motion”. Time is a measure of motion in space carried out by clocks. Time is not a part of space. Space-time is not a physical reality into which material changes run. Space-time is a math model only, used describing the motion of objects in space where time is a coordinate of motion. Space itself is atemporal.

Key words: time, space, space-time, atemporal space, duration, numerical order, consciousness

Introduction

Time is what we measure with clocks: with clocks we measure duration and numerical order of motion of massive objects and elementary particles in space. There is no evidence that motion happens in time; we can only observe motion in space. To describe the position of two objects A and B in space, we need three coordinates X, Y and Z. To describe the motion from object A to object B, we need a fourth coordinate which is time “t”. With clocks we describe motion. For example, let us take the simplest equation:

$$\text{distance} = \text{speed} \times \text{time}.$$

Time in this case means duration of motion. If speed is given, we can calculate the distance that an object or particle has done in space.

In the Theory of Relativity, time as a “fourth” coordinate of space-time is a “coordinate of motion”, and describes the motion of massive bodies and particles in space. Fourth coordinate $X_4 = c \times i \times t$ is called the “time coordinate”, whereas c is light speed, i is an imaginary number and t is the number representing duration of material change. With “time coordinate” one describes motion of objects in space. With clocks one measures the interval

between material change X and material change $X + n$, where n represents the number of units of time. The smallest unit of time is Planck time; in Planck time, photons pass a Planck distance. Time is a measure of motion in space.

Lynds defines time as: »Time enters mechanics as a measure of interval, relative to the clock completing the measurement” (1).

Space-time is a math model only; space-time does not exist as a physical reality. With the model of space-time we describe motion of objects and particles in space. There is no evidence of space-time existing as a physical reality. Before Einstein created the space-time concept, no one imagined that space-time is a stage of the universe. Today most physicists believe that universe exists in space-time as a fundamental physical reality, however there is no evidence or experimental proof of that (2,3,4,5,6).

Space itself is atemporal. Motion of objects and particles does not happen in time, it happens in space only. Time is not running in space independently and is also not a part of the so called space-time as a fundamental physical reality. Space is atemporal and time is a coordinate of motion invented by man and describes motion in an atemporal space.

Humans experience atemporal space as a present moment. Past and future exist only in the mind; physical past and future do not exist, there is only atemporal space. All experiments in physics always run in the present moment, because the present moment is the only thing that exists. We are not aware yet that present moments do not follow each other in the line past-present-future. Present moments are those in which motion happens. We experience this motion in a linear mind concept of past-present-future.

Time as a “measure of motion” is not an elementary physical quantity like energy, matter, space and motion are; time exists only when we measure it. Time was invented by man in order to describe motion in atemporal space. We have to distinguish between:

- psychological time - basic model of the human mind in which we experience motion
- physical time - where the symbol t represents the number of units of time as a coordinate of motion in atemporal space
- space-time – mathematical model in which we describe motion in atemporal space

The difference between all three is not clear yet. The main stream of science considers time to be a fundamental physical reality, without being aware that scientists “project” the mathematical model of space-time in physical reality. Ordinary people “project” their psychological time in physical reality. Universe is an atemporal phenomenon. We cannot think that the universe runs in time, because we do not have any evidence of that. Exactly

opposite is true: we experience atemporal universe in psychological time and we describe motion in atemporal space with physical time that is only a scientific tool and not a fundamental physical reality.

Eternity is Now

Through psychological time we experience the flow of material change in atemporal space in a linear way: present moment X is followed by present moment X+1, present moment X+1 is followed by X+2 and so on. Actually, atemporal space that we experience as a present moment is always the same. Linear time “past-present-future” is a mind model in which we experience the flow of material change that runs in atemporal space. This means that eternity is neither infinitely back from the present moment nor infinitely ahead from the present moment, eternity is contained in atemporal space, it meaning in this present moment.

Relativity of Speed of Motion and Speed of Material Change

According to this understanding of time in the Special Theory of Relativity, it is not time that is relative but the speed of material change; in a faster inertial system the speed of clocks and material change in general, is lower than in a slower inertial system. In physical space with stronger gravity the speed of clocks and material change in general is lower than in physical space with a weaker gravity field.

This understanding of time resolves the problem of twins. We do not live in time; we live in atemporal space only. A brother in a high-speed spaceship is getting older slower than his brother on Earth, but both are getting older in an atemporal physical space.

Atemporal Space and the Einstein-Podolski-Rosen experiment

The Einstein-Podolski-Rosen experiment confirms the idea of atemporal space according to which material change runs into atemporal space only and not into time. In the EPR experiment atemporal space is the direct information medium between elementary particles. There is no information signal traveling into time between particles. Atemporal space is the “immediate information medium” between elementary particles (7).

In Special Theory of Relativity the forth (time) coordinate is a “coordinate of motion” that describes motion in atemporal space.

Atemporal space and the General Theory of Relativity

The brother living on Moon is getting older faster than his brother on Earth because gravity is stronger on Earth but both are getting older in an atemporal physical space.

Contradictory, hypothetical travel into past is possible according to the Theory of Relativity but out of question according to the theory of atemporal space. No one can travel through space-time, as space-time is merely a mathematical model. One can travel into atemporal physical space only. We measure the duration of travel with clocks.

The rotation speed of planet Mercury is slower as it should be regarding its mass, because in an atemporal space with stronger gravity the motion of massive objects is slower than in a space where gravity is weaker.

In the General Theory of Relativity 3-dimensional objects exist in a 4-dimensional space. Gravity force is the result of a curvature of the 4-dimensional space. As 4-dimensional physical space is atemporal, one can see the gravity force as a non-propagating force working directly into space and indirectly between material objects.

According to the Loop Quantum Gravity, space has a granular structure; it is made out of quanta of space. A curvature of 4-dimensional atemporal space is the result of its quantum structure. Gravity force as the result of the curvature of space is a non-propagating force; it works directly between quanta of space in a 4-dimensional atemporal space and indirectly between 3-dimensional material objects. 3-dimensional material objects are somehow captured inside a 4-dimensional atemporal space (8).

Relation between Time, Mind and Consciousness

With eyes we perceive motion in atemporal space. Our mind elaborates the perception of motion in a model of linear time (past-present-future), as we experience it.

material change – eyes – mind elaboration in time – experience (9)

Consciousness has the ability to watch, to witness this process. You take a pendulum and watch it. It is similar to watching the movement of a pendulum. One will perceive the pendulum moving in space only, and not in time. By closing our eyes we can see the image of pendulum moving also in space only, and not in time. The actual pendulum and the image of it are moving in same

atemporal space. Material objects and mind objects move in same atemporal space. Mind is describing their motion by means of a model of linear time. Consciousness is watching motion of the material and motion of mind objects in atemporal space. Consciousness itself is atemporal. Consciousness is aware of past and future as models of the mind. Consciousness is aware that time as a physical quantity exists only as duration and numerical order of motion in atemporal space.

Zeno Arrow Paradox

Zeno argued that the flight of an arrow is an example of motion. At any moment in time, the arrow either is where it is or it is where it is not. If it moves where it is, then it must be standing still, and if it moves where it is not, then it can't be there; thus, it cannot move.

According to atemporal space, the answer for ZENO paradox is: The arrow does not move in time, it moves in space only, which is atemporal. Humans experience atemporal space as present moment. In atemporal space there is always present, while past and future are products of the human mind.

Conclusions

In the Theory of Relativity and in physics in general with clocks we measure time as duration and numerical order of motion in space. Time as a fourth coordinate is a “motion coordinate” and describes motion of massive objects and elementary particles in atemporal space. A concept of space-time is here developed into a concept of atemporal space where time is a “coordinate of motion”. With clocks we measure time as duration and numerical order of motion.

Humans experience atemporality of space as a present moment. Every scientific experiment is always carried out in the present moment, because present moment is the only thing that exists as a physical reality. Past and future are models of the mind, they only exist as a psychological reality. Consciousness is aware that with clocks we measure motion in atemporal space. Time exists only when we measure it. Universe itself is an atemporal phenomenon.

Consciousness as a research tool in theoretical physics plays an important role. It makes us aware of the difference between models of the universe and universe itself. The correct understanding of time plays an essential role here. The mind is able to understand that time is a measure of motion in atemporal space, and that universe is atemporal, though it cannot experience it. In order to achieve this, awakening of consciousness is needed.

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