A matter of space and velocity

2003 to 2021

Founding your reasoning on the premise that the reasoning is reasonable is somewhat circular logic.

Also, claiming that there can be no reason other than the one you are thinking of uniquely because we cannot think of another is tantamount to claiming that you can travel by sea directly from Spain to China unencumbered by obstacles, since you never thought America could be in the way.

Because of how we were raised and educated, it is very difficult to avoid using time related words, but one can try.

Stating that you lived for 78 years does not give me any indication about the nature of time. All you can say is that the motions attached to your body, whether at very small of larger scale, can be superimposed on 78 circular motions of the starry sky around you. One revolution is called a year. A year is not divided in days, since the definition of a year is one revolution of the starry sky whereas the day is one revolution of the sun (more or less, since the passage of the sun across the meridian drifts along the year by as much as 16.5 minutes one way and 14.4 minutes the other). Weeks, minutes and seconds are derived directly from the average day, while the month is imperfectly derived from the revolution of the moon.

Regarding recorded history, serious observation and partial understanding of celestial phenomena date back only about 2,500 years, or less than 0.2 parts per million of what is said (justly or falsely) to be the age of the universe, if such age has any meaning at all. The starry sky was quite different at the time, if only because precession of the equinoxes has caused the vernal point to shift 35 degrees since, or more than one month.

Not only is it questionable to compare the current with what we think was observed 25 centuries ago, but also claiming that whatever we think happened in recent memory can be exactly extrapolated linearly over a number of circular motions more than 5 million times as many is quite debatable. If you wish you can substitute the period of oscillation of a crystal for the revolution of the sky, but it won't change the reasoning much.

One of the reasons why time has for me no physical existence is that it is extremely probable that living beings other than humans have no notion of it at all. All an animal, whatever the species, can perceive and discern, depending on the senses at its disposal, is angle and velocity. Same with a baseball player: he catches or hits a ball based on its perception of its movement only. From those two sole quantities the human mind derived the notions of distance (which can only be measured if a signal travels to

you from a target or if you travel to it), and of time, which is distance divided by velocity. Angles are measured in degrees, and distances in meters (m). As for speed, it is traditionally measured in units of distance divided by time, which is quite absurd when you think of it, since time is derived from natural distance and speed, not the other way around. There should be a unit for speed, for example the *tach* (τ, from ταχύς, Greek for speed). Time, which could be used for comparative purposes, would be expressed as meters per tach, or m/τ.

I spent over the years quite some time trying to rewrite physics based on m and τ only, but it's quite arduous, mostly because our whole way of conceptual thinking is based on the artificial concept of time.

Not only is time a derived concept, not a physical quantity, but also if you consider a theoretical universe consisting of one single body of strictly dead matter, that is at a zero absolute temperature, then all velocities are zero, and time becomes either of no relevance of always infinite. So you see time cannot be a fundamental quantity.

This being said, you are contemplating the putative creation of the universe, whereas our real knowledge of the universe is extremely superficial. No star, even the closest, can be discerned in a telescope (other than one pixel of light), let alone so-called exoplanets, their chemical composition is only inferred from spectroscopy, and therefore cannot be minute, we have no real idea of the dimensions of the universe, we have no clue about the real nature of gravity (other than the tautological or puerile analogies in vogue), and as for our own planet, so small compared to the rest, we can't drill its surface more than 40,230 ft deep (12,262 km), 0.2% of Earth's radius. Still, its iron core is discussed with great assurance, but when you think about why we think it is iron you find that the reason is quite rudimentary and is only inferred.

As for the current state of science, I came to the conclusion that most scientists were not head of their class, that they're content with merely repeating what they were taught, that for most science is merely a business, in which bragging is essential if they want financing, that their conceit is insufferable, not to elaborate on the journalists that falsely report things they do not understand.

You may think this paradoxical, but I have much more respect for a Jesuit than for the average scientist. One is honest, the other is not. In recent decades science has been desecrated. Religion was not.

To summarize, I think it is rather ineffectual to try to devise a simplistic rationale for events that led to the creation of the universe (if such creation ever existed), not knowing what the universe is really made of (most of it being nothingness) and what keeps it together, nor knowing its size, while using in this quest a basic but secondary quantity that is not primary but derived from others.

M

I don't know what eternity means, in fact.

I think I gave quite a detailed explanation for my conclusion that time is only a man-made concept, not a physical quantity. I agree that it is commonly understood that time is linear, regular and measurable, although the statement is never accompanied by a definition of time.

As it happens, I started wondering about the nature of time when I was in the fifth grade. I remember the moment very clearly, and not a night went by that I did not go to sleep without trying to find an answer, until it finally dawned on me in Houston, in 2003, that the reason I could not find an explanation for 40 years was that time just had no existence as a physical entity. I realized that when a praying mantis catches an insect it doesn't make complicated calculations that involve time as a variable, but reacts to what it detects, which can be only three-dimensional angles and radial as well as tangential angular velocities. Same with a fox running after a rabbit, or a baseball player catching or hitting a ball.

I became aware that time existed only as a concept in the human mind.

So the real actual primary physical quantities are angles and angular velocities, irrespective of the auxiliary time variable, which is used as a convenient tool only. From those primary quantities you can derive distances and linear velocities, although the process is already conceptual. Along a one-dimensional line you can determine the position of an object, say in *meters* (m), and its velocity, say in *tachs* (τ). If you want to define time (t), which I don't think you really need, it would be expressed in meters per tach. Then all the laws of physics need to be rewritten, but since the core of our very thinking has been modelled since a very early age around the concept of time, you would have to scrap everything you ever learned and build it again, which is a tremendous endeavor.

I don't think we can really understand the universe if we don't first remove time from the equation, since it has no reality and is only a convenient conceptual tool that is used to compare one velocity with another. At one point in the development of mankind somebody invented the time concept, which was certainly quite useful but is the very thing that prevents us from really understanding physics the way it should.

M

To try to understand your concept better:

I am using below the metric system by convention, but I could use any other system. I have no preference among systems, especially where time is concerned, since the French insurrectionists failed to impose a decimal clock.

1. This is your personal concept and to date no one has agreed with you?

It is indeed personal research and I don't know if anyone would or not agree, since I haven't shared it, or on what basis anyone could disagree since I am talking about simple and primary quantities that can hardly be disagreed with, so elementary and natural are they, whereas no one ever came up with a satisfying definition of what one calls time.

Additionally, I would say that at least 10 million species of animated organisms are in agreement with me, and also ball players.

2. If your car is moving at 30 mph, express that velocity in the units of tachs or if tachs fully expresses the concept then define tachs.

The definition of a *tach* would of course be conventional, as for any other unit. You can say for example only that one tach is the velocity reached by an object dropped in a vacuum at Earth's surface from a height of one meter (there are 10,000,000 meters by definition from Pole to Equator). That would be equivalent to 4.43 meters per second, or 9.91 mph. A speed of 30 mph would translate into 3 *tachs*. Light would travel at 67.74 million tachs.

Then you would have to define acceleration. The unit would be τ^2/m (square tach per meter). Earth gravity at sea level would therefore be 1 τ^2/m, and an acceleration of 1 m/s^2 would translate into about 0.1 τ^2/m

3. Your say that the actual primary real quantities are angles and angular velocities. What are the units of angular velocities which don't use time.

The unit of angle would be the same as current (1 radian, which defines an arc of 1 m at a radius of 1 m). Angular velocity would be defined as current as linear speed divided by radius, or tach per meter. An object moving circularly around a center at a distance of R meter and at V velocity would have an angular velocity of V/R τ/m. A circular speed of 1 rad/s would translate into 0.23 τ/m.

For reference, the second hand of a clock (the one that goes around 1,440 times when the sun goes around once) would have an angular velocity of 0.024 τ/m, and its tip at a radius of 41.7 m a linear velocity of 1 tach, which can also be used to define the *tach*. Although a clock is used to measure what we call time, in fact it only counts impulses and from there revolutions. All a clock does is compare angular velocities.