

Special Theory Of Relativity (Questions For Discussion)

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1- Abstract

This paper provides many difficult questions concerning Special Theory of Relativity
To explain that the theory needs extension.

In fact – the theory is so hard to be understood – and I try to prove that this theory is a
correct theory but it's just a part of a general one which is NOT GR !

Let's define the discussion content in following

Discussion Content

- 1- Special Theory of Relativity Hypothesis (Point No.2)
- 2- The Relativistic Effects (Length Contraction As Example) (Point No.3)
- 3- Matter Creation (Preferred Reference of Frame) (Point No.4)
- 4- The Relative Concept (Point No.5)
- 5- A New Relativistic Feature (My Conclusion) (Point No.6)

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Let's start the discussion immediately

2- Special Theory of Relativity Hypothesis

Special Theory of Relativity Provides The Following Hypothesis

"Light Velocity Is A Constant In All Frames"

Why?

Because There's No Velocity Higher Than C? Or Because Our 5 Senses Can't discover Any Velocity Higher Than C? (Where C = Light Velocity)

Next question is –

How we get the data on which we build the theory?

(1) By Laboratories Experiments and (2) By The Observational Results

So-

The 5 senses are the available sources through which we get the required data!

Is it possible to find any data out our 5 senses? And how can we reach to it?

This hypothesis discussion is so complex – and we need to stop here.

But here I have one idea to help us for better vision

Why we don't use the planet data analysis in addition to the experiment and observation as methods of astrophysics science

Let's discuss that deeply

Pythagoras rule tells us $a^2 = b^2 + c^2$. Now if we have a right triangle its dimensions are 3, 4 and 5 cm (for example) –so if we analyze these numbers (3,4 and 5) we may reach to the Pythagoras rule – this process is done based on the pure mathematical logic and doesn't depend on any of our 5 senses –

Similar to that –

Why we don't use the planet data analysis to see much better how this universe works For example – the moon diameter =4375 km – Why? Is there a geometrical reason caused the moon diameter to be created by this value? – later in this paper we will see that the moon diameter must be created based on geometrical rule-

So my idea simply to use the planet data analysis to discover the geometrical rules behind the planet creation and motion.

In fact

The Planet Data Analysis using as a research method should be considered a real extension for the astrophysics Science- because it provides a logical method isn't effected by any of our 5 senses.

Now let's move further to discuss the relativistic effects which is our main point in this paper.

3- The Relativistic Effects (Length Contraction As Example)

(Length Contraction Effect Reasoning)

Length Contraction Equation

$$L_1 = L \sqrt{1 - \frac{v^2}{c^2}}$$

L = The Proper Length

L₁ = The Contracted Length

Special Theory Of Relativity states that "If a particle travels with light velocity (approximately) relative to an observer, this observer may see some relativistic effects on this particle- These relativistic effects are: (I- Length Contraction II-Time Dilation III- Mass Increasing)

Also I have concluded a new relativistic effect which is "Time and Distance Equivalence"- this feature will be discussed at the end of this paper.

Now let's use an imaginary experiment for better Explanation

An Imaginary Experiment

We have 2 observers for one particle- observer (A) travels by the particle velocity (v₀) but observer (B) travels by light velocity relative to the particle (v₁)

How both observers will see this same particle?

Observer No.1 will see it as a particle

Observer No.2 will see it as a wave

What is happened for the particle own nature?

The theory states that "**The Proper Length Never Change**"!

How do we understand that? What's the proper length?

It's just a memory! The particle length is changed already...!

Let's start our discussion

Discussion

How the particle is created? How the particle mass, length, breadth, thickness, color, density.....etc are defined? The relativistic effects are 3 features to which I have referred already (length contraction – time dilation- mass increasing)...

So

(1) Why not other features are changed as relativistic effects? Why the particle color or density –for example- isn't changed accordingly?

(2) Is this change occurred really for the particle own nature or for our vision only? (as in mirage we see wrongly the water which is not real)

The main question

Length Contraction Lorentz equation states that – the particle length is effected by

(1) c (light velocity)

(2) v (observer velocity)

Whether the particle length contraction was a real or imagination – the question is **why c velocity effects on all vision around us?** I suggest an answer

Human Mind Realization Process Uses The Light Velocity

<http://vixra.org/abs/1905.0489>

(3) By what mechanism the particle length contraction is done?

(4) Why The observer velocity effects on the particle nature?

i.e.

If the particle is independent from the observer why the observer motion effects on the particle nature?

Now we reach to the hard question.....

In the book

"The Special Theory of Relativity"

by Herbert Dingle

D.Sc., D.I.C., A. R.C.S Professor of History and Philosophy

University College – London 10th November 1940

The author tells us that

"Any Observer may use Any System"

How to understand that?..... how can I use any system?

I have a body (matter) and I have 5 senses where the light velocity controls my universe – so how can I use any system?

Let's see the main equation

$$E=mc^2$$

Why **The Light Velocity** defines the energy amount in the mass?

The previous equation tells us that,

The Matter Is Related And Connected With The Light Velocity

We should see what's going on here? ...let's summarize the problem

(1) we have 5 senses (2) we use the 5 senses only to reach to the data (3) the light velocity is connected and related to the matter (to the 5 senses)

All that means

We see the universe around us based on the light velocity

We are not free to use any system

Simply the matter forces us to see the universe through specific vision and that means the vision which we see is a forced vision and supposed to be understood through the geometrical and mathematical logic.

Simply the 5 senses can deceive us easily

4- Matter Creation (Preferred Reference of Frame)

How the matter is created?

How the distance is created? From what stuff the distance is created?

Are we in preferred reference of frame?

That means we connect to specific reference of frame and we aren't free to choose the frame in which we live...

Why we are in a preferred reference of frame? Because of the matters around us!

Not only ... Basically because **of the Earth Motion....** But

We know that Earth Motion is so slow and can't produce any relativistic effects- so Earth motion can't be a player defines our frame!

And how we measure Earth velocity? It's easy ... Earth velocity is measured and it's 29.8 km/se- How to know that? By **Direct Observation!**

But we agreed have that the direct observation can't provide trustee data – that because we see through a forced mirror – we need data analysis-

Why Earth velocity = 29.8 km/se?

(1)

The moon circumference 10921 km x 86400 seconds = 940 mkm (Earth Orbital Circumference)

The previous equation tells us that – If Earth revolves around the sun in one day only, so the moon circumference will equal a distance of her motion for 1 second only.

(2)

The moon circumference 10921 km x 27.3 days = 300000 km

The previous equation tells us that – if the moon rotates around his axis one time daily – so he during his actual orbital period (27.3 days) will move a distance = 1 second of the light motion. (Just we note that 1 second is repeated with the moon data)

Planet Motion

The previous discussion tried to show that the planet velocity in fact isn't so clear to define as we think. That because we don't know how the matter is created...

Let's provide my idea here...

I think the matter is created in its motion – and by "motion" I mean the outer motion – as the moon revolves around the Earth. And I don't mean the electrons and atoms motions inside the matter.

So - the matter is created in outer motion (my hypothesis)-

That means- the space is created complementary to the matter – and means the matter and space are created together to be complementary to each other –

And how that can be possible? It's possible if the matter is created of energy ($E=mc^2$) and space is created of energy (my hypothesis) – so the matter and space are created from **The Same Energy** to be complementary to each other.

So how the planet moves? Because the matter is connected with the space always- and if the matter moves that means the space moves with it.

I just try to explain that the planet motion is so complex – and this discussion will stop here- because the planet motion needs a separate paper.

5- The Relative Concept

Special Theory of Relativity states that "**The Motion Is Relative**"

Does that refer to the unified origin?

i.e.

If there's any relative motion between 2 particles- does that necessitate these 2 particles to be created from the same origin?

The available answer is "NOT" But why not?

I use the data analysis and not the imagination...

Let's discuss with examples

Example (No.1)- Double Production Experiment

From Gamma rays, an electron and a positron may be created – equal masses and different charges – so they have reason to move relative to each other

The same origin and relative motion

Let's use another example

Example (No.2)- Solar planets motions

I claim basically that the solar planets are created relative to each other geometrically and from the same energy- these requirements are the basic requirements to guarantee the general harmony of motions

My papers discuss this idea from different points of view

I don't say that the relative motion necessitates the unified origin- but I have no data against this idea

I think just if the particles are created from the same source – they can move relative to each other because they need the space for their motions and this space is created with them as complementary player to guarantee the relative motion (and based on that to guarantee the general harmony of motions)

6- A New Relativistic Feature (My Conclusion)

From the Planet data analysis I have concluded the following:
Time And Distance Values Can Be Equivalent In Higher Velocity

i.e.

Time & Distance Values Equivalence Is Occurred As A Relativistic Effect.

Briefly

When a particle moves with high velocity (near to light velocity), So this particle may suffer from the following effects:

1. Mass Increasing
2. Length Contraction
3. Time Dilation

4. Time & Distance Values Equivalence

Point No. 4 is my conclusion I have reach through The Solar Planets Data Analysis -
Please review my paper

Time And Distance Equivalence (Proves)

<http://vixra.org/abs/1904.0125>

or

<https://www.academia.edu/s/4f072890be/time-and-distance-equivalence-proves?source=work>

or

<https://www.slideshare.net/Gergesfrancis/time-and-distance-equivalence-proves>

Also Please Review

The Time Definition

<http://vixra.org/abs/1805.0523>

Solar Group Geometrical Structure

<http://vixra.org/abs/1805.0081>

Definition of Space (Revised)

<http://vixra.org/abs/1810.0307>

Time And Distance Equivalence (Proves)

<http://vixra.org/abs/1904.0125>

Space Has Different Densities of Energy

<http://vixra.org/abs/1901.0107>

Vacuum Energy Theory

<http://vixra.org/abs/1901.0163>

Why Energy has different forms?

<http://vixra.org/abs/1812.0116>

Life Is Found On Earth Only

<http://vixra.org/abs/1901.0422>

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<http://vixra.org/abs/1902.0044>

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or

<https://www.slideshare.net/Gergesfrancis/gerges-francis-tawdrous-curriculum-vitae>