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Special Relativity and Velocity Time Dilation – An Imagination or Just a Pure Mathematical Definition?

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[Abstract]
Einstein's special relativity is based on the postulation that light speed is constant no matter the light sources and observers. In addition, he proposed Velocity Time Dilation based on constant light speed. Both of them are wrong. They are only imaginations and pure mathematical definitions. In fact, according to Yangton and Yington Theory, light speed is not constant, instead, it is the vector summation of Absolute Light Speed C ($3x10^8$ m/s on earth) and Inertia Light Speed (speed of light source). Also, Velocity Time Dilation is nothing but a pure mathematical definition which is used to compensate constant light speed in distance measurement.

[Keywords]
Light Speed, Special Relativity, Velocity Time Dilation, Relativism, Yangton and Yington, Wu's Pairs, Equation of Light Speed. Acceleration Doppler Effect, Event Horizon.

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I. Einstein's Special Relativity – Light speed is constant

In Einstein's Special Relativity [1], it is postulated that the light speed in space is always constant, no matter the moving speed and direction between the light source and observer (reference point). As a consequence, time on a moving object runs slower than that is stationary to the observer (reference point). This phenomenon is known as "Velocity Time Dilation" [2].

According to Yangton and Yington Theory [3], however the light speed in space is not always constant [4]; it actually changes with the relative moving speed and direction between the light source and observer (reference point). Einstein's Special Relativity is false, as is the Velocity Time Dilation. In fact, there are three conflicts and mistakes in the derivation of Velocity Time Dilation. They are discussed as follows:

1. Speed of Light

Einstein's Special Relativity is based on a postulation that the light speed observed at a fixed reference point is the same as that observed at the moving light source. This conflicts to the principles of Vision of Light [5] and Photon Inertia Transformation [5] that the light speed changes with observers (reference points) moving at different speeds and directions with respect to the light source. More specifically, it against the Equation of Light Speed that the speed of light observed at the reference point is a vector summation of the Absolute Light Speed 3 x 10^8 m/s on earth (the speed of photon observed at the light source) and the Inertia Light Speed (the speed of light source observed at the reference point).

Fig. 1 shows a typical example of Einstein's Special Relativity, in which a light clock emits photons to a mirror on the roof of a train while it is moving away from a ground observer (reference point).

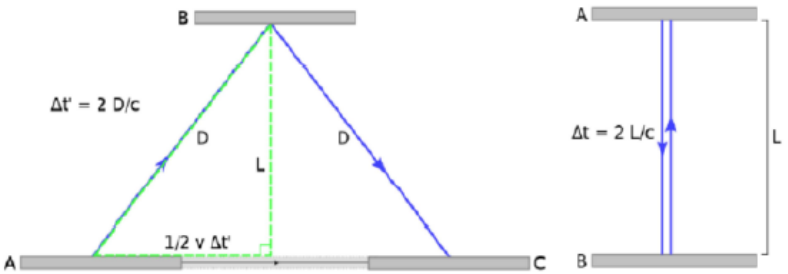

Fig. 1 Moving light clock and Velocity Time Dilation Theory.

Because, Einstein's Special Relativity assumes that light speed is always constant no matter the light sources and observers (reference points).

$C = C'$

$(\Delta t' C/2)^2 = (\Delta t C/2)^2 + (V \Delta t'/2)^2$

$\Delta t' = (1 - V^2/C^2)^{-1/2} \Delta t$

Because

$$V < C$$

Therefore

$$\Delta t < \Delta t'$$

Where Δt is the light traveling time measured at the light source and $\Delta t'$ is the light traveling time measured on ground.

As a result, the light traveling time measured at the light source Δt is smaller than the light traveling time measured on ground $\Delta t'$. This phenomenon is called Velocity Time Dilation.

However, according to Vision of Light and Photon Inertia Transformation, light speed is not always constant. In Fig. 1, D is the Vision of Light observed on the ground (reference point) and L is the Vision of Light observed at the light source. Also for the same event, time duration is the same, no matter the observation. Therefore,

$C' = 2D/\Delta t'$ & $C = 2L/\Delta t$

$D^2 = L^2 + (V\Delta t'/2)^2$

$\Delta t' = \Delta t$

$(C'\Delta t/2)^2 = (C\Delta t/2)^2 + (V\Delta t/2)^2$

And

$$C' = (C^2 + V^2)^{1/2}$$

The light speed observed on the ground is $C' = (C^2 + V^2)^{1/2}$ which is larger than that observed at light source $C = 3x10^8$ m/s.

As a result, oppose to Einstein's Special Relativity and Velocity Time Dilation, light speed is not constant and time doesn't change with velocity neither.

Despite the difficulties in design of an experiment for precision measurements of light speed and Velocity Time Dilation, we can find two existing evidences in the universe to prove that light speed is not constant.

A. Acceleration Doppler Effect

According to Acceleration Doppler Effect [6], in a spinning galaxy, Redshift can be observed while star (light source) moving away from earth (reference point) in acceleration; also Blueshift can be observed while star (light source) moving toward earth (reference point) in acceleration. For Redshift, wavelength gets bigger and light speed becomes smaller $C' = C - V$; but for Blueshift, on the contrary, wavelength gets smaller and light speed becomes bigger $C' = C + V$. Furthermore, there is no change on wavelength (Zeroshift) under constant speed V between the star (light source) and earth (reference point), even though, light speed still changes with V.

B. Event Horizon

Equation of Light Speed is a vector summation as follows:

$$\mathbf{C'} = \mathbf{C} + \mathbf{V}$$

Where **C'** is the light speed observed on earth (reference point), **C** is the light speed observed on the star (light Source) and **V** is the speed of the star (light source) observed on earth (reference point).

As a star moving close to a black hole, because of the massive gravitational force of the black hole, the star (light source) is pulled toward the center of black hole with acceleration. Once the speed of the star (light source) V towards the center of the black hole observed on earth (reference point) is equal or faster than the speed of the light C escaped from the star (light source) towards earth observed at the star (light source), in other words V and C have opposite directions and $/V/ \geq /C/$, then C' is equal to zero or becomes negative, such that light emitted from the star can no longer be observed on earth. As a result, light is trapped beyond the Event Horizon [7] inside the black hole.

In both cases light speeds observed on earth (reference point) are different subject to the relative directions and speeds between the star (light source) and earth (reference point). Therefore, Special Relativity is false.

2. Direction of Light

What if the light clock is placed in a tilted angle or horizontal direction instead of a perpendicular direction, with respect to the train moving direction (Fig. 1), do we still have the same Velocity Time Dilation? The answer is no.

Because only for vertical triangle, $\Delta t' = (1 - V^2/C^2)^{-1/2} \Delta t$ works, otherwise this formula is not applicable if the light clock sits at a tilted angle or horizontal position with respect to the moving direction.

3. Twin Paradox

Motion is relative. Whatever the motion twin brothers experienced in their own time system, either in a spaceship or on earth, they are identical except in opposite directions. Slower time and younger age can be claimed by both brothers, which conflicts with the common principles of logical thinking. Twin Paradox [8] proves that Velocity Time Dilation is a false theory and can never exist.

Furthermore, a similar conflicts are also shown in the derivation of Lorentz transformation, where $\Delta t' = (1- V^2/C^2)^{-1/2} \Delta t$ is obtained by the postulations that the speed of light C is a constant and the reference system is moving only in the horizontal direction (X direction).

II. Yangton and Yington Theory – Light speed is not constant

1. Photon – A Free Wu's Pair

According to Yangton and Yington Theory, photon is a free Wu's Pair, a super fine Yangton and Yington circulating Antimatter particle pair, traveling in the normal direction of the Yangton and Yington circulation orbit in space at light speed. Therefore the mass of a photon is the same as that of a Wu's Pair (m_{yy}).

Since the circulation orbit is extremely small, any force induced by the Yangton (positive electric unit charge) can be neutralized by its counter force induced by the Yington (negative electric unit charge). In other words, photons cannot be interfered by any gravitational force or electromagnetic force. A photon has zero gravitational force on the surface of earth and sun, except in an extremely high gravitational field such as a Black Hole.

2. Photon Emission

A photon can be emitted from the parent object (light source) through a two stage process: separation stage and ejection stage (Fig. 2) [9].

A. Separation Stage

To unlock a photon from the surface of an object, it requires thermal energy (kinetic energy) to overcome the string energy caused by the string force between two adjacent Wu's Pairs.

According to Whirlpool Theory, a spinning particle separated from its parent spinning system should have a kinetic energy E that is proportional to the particle mass m and the spin frequency ν.

$$E = \kappa m \nu$$

Therefore for a photon,

$$E = \kappa m_{yy} \nu$$

Where κ is whirlpool constant and m_{yy} is the mass of photon (or Wu's Pair).

Given

$h = \kappa m_{yy}$

Therefore,

$$E = h\nu$$

Where h is Planck constant 6.626×10^{-34} m^2kg/s.

B. Ejection Stage

After separation from the parent object, photon is ejected toward the normal (axial) direction of Yangton and Yington circulation orbit by a repulsive forces generated between the two Yangton particles and also two Yington particles where one from the emitting photon and the other one from Wu's Pair on the surface of the parent object.

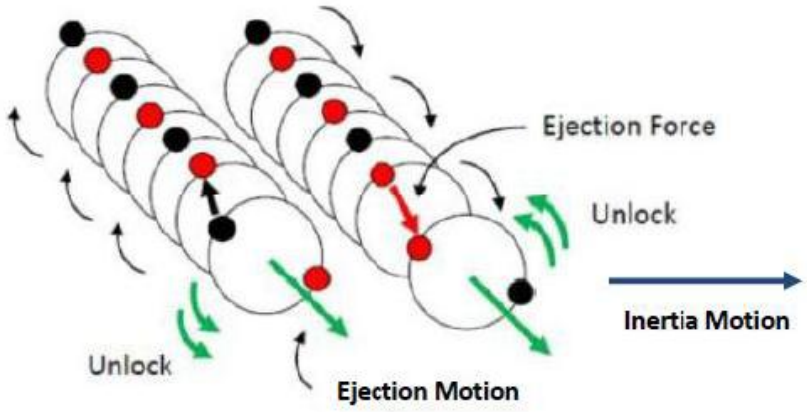

Fig. 2 A photon is formed in a two stage separation and ejection process by releasing Wu's Pair from its parent substance.

3. Absolute Light Speed

In the photon Ejection Stage, because of the constant ejection force, regardless of the frequency, a photon escaped from its parent object (light source) should always have a constant speed 3 x 10^8 m/s on earth (at a fixed gravitational field and aging of the universe such as on earth) known as "Absolute Light Speed" in the ejection direction observed at the parent object (light source).

4. Photon Inertia Transformation

In the Separation Stage, photon also carries the inertia of the parent object (light source). Therefore, photon travels not only at the "Absolute Light Speed" (3 x 10^8 m/s) in the trajectory direction from the light source, but also with a speed and direction as that of the light source observed at a reference point which is called "Inertia Light Speed". This phenomenon is named "Photon Inertia Transformation" [6].

5. Equation of Light Speed

When a photon emitted from a light source, it undergoes Photon Inertia Transformation and travels with two motions: ejection motion and inertia motion. In other words, the light speed (C') observed at any observation point is a vector summation of the Absolute Light Speed 3 x 10^8 m/s (C), the moving speed of the photon away from the light source observed at the light source, and the "Inertia Light Speed" (V), the moving speed of the light source away from the reference point (observer or his inertia system).

$$\mathbf{C' = C + V}$$

This theory is named "Equation of Light Speed" [6].

III. Velocity Time Dilation – An imagination or a pure mathematical definition?

Based on Equation of Light Speed, Einstein's Velocity Time Dilation Theory can be mathematically derived from a pure definition (no physical meaning) of Einstein's Imaginary Time upon his constant light speed postulation.

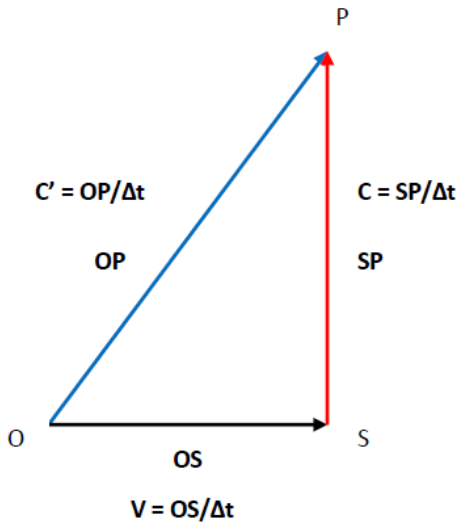

Fig. 3 the correlation between the light speed C' observed at the reference point O, Absolute Light Speed C observed at the light source and the speed of light source V observed at the reference point O.

Fig. 3 shows the correlation between the trace of a photon (vision of light) **OP** observed at the reference point O, the trace of light source (vision of object) **OS** observed at the reference point and the trace of photon **SP** observed at the light source through a small duration Δt. Then,

C' = **OP**/Δt

C = **SP**/Δt

V = **OS**/Δt

Also, according to Equation of Light Speed. Therefore,

$$\mathbf{C' = C + V}$$

Where the equation is a vector summation, **C'** is the light speed observed at the reference point, **C** is the Absolute Light Speed (3×10^8 m/s on earth) observed at the light source and **V** is the speed of light source observed at the reference point.

Einstein assumed light speed is constant, no matter of the observers, therefore the light speed observed at reference point should be C instead of C'. As a consequence, he defined an imaginary time Δt' to fulfill OP = C Δt'.

Δt' = OP/C (Einstein's definition)

Because,

Δt = OP/C'

Therefore,

Δt' = (C'/C) Δt

If the direction of Absolute Light Speed **C** is perpendicular to the speed of light source **V**, then

$C^2 = C'^2 - V^2$

$C^2/C'^2 = 1 - V^2/C'^2$

And

$C'/C = 1/(1-V^2/C'^2)^{1/2}$

Therefore,

$\Delta t' = 1/(1-V^2/C'^2)^{1/2}\ \Delta t$

Where Δt' is Einstein's imaginary time. It is a pure mathematical definition without any physical meaning. The only purpose of the existence of Δt' is to fulfill OP = C Δt', the trace of light (Vision of light) is equal to Einstein's Imaginary time Δt' multiple the constant light speed C.

Also,

V' = VΔt/Δt' (Einstein's definition)

C = C'Δt/Δt' (Einstein's definition)

Then

$\Delta t' = 1/(1-V'^2/C^2)^{1/2}\ \Delta t$

If $V' \rightarrow C$, then $\Delta t' \rightarrow \infty$.

Where Δt' is Einstein's imaginary time and V' is Einstein's imaginary speed of light source observed at the reference point. This equation is identical to Einstein's Velocity Time Dilation.

As a result, Einstein's Velocity Time Dilation is nothing but an imagination or a pure mathematical definition. The only purpose is to support Einstein's wrong postulation "Light speed is constant no matter the light sources and observers".

IV. Conclusion

Einstein's special relativity is based on the postulation that light speed is constant no matter the light sources and observers. In addition, he proposed Velocity Time Dilation based on constant light speed. Both of them are wrong. They are only imaginations and pure mathematical definitions. In fact, according to Yangton and Yington Theory, light speed is not constant, instead, it is the vector summation of Absolute Light Speed C ($3x10^8$ m/s on earth) and Inertia Light Speed (speed of light source). Also, Velocity Time Dilation is nothing but a pure mathematical definition which is used to compensate constant light speed in distance measurement.

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