TIME DILATION -CHANGING THE UNDERSTAND BY LORENTZ'S EQUATION

SPEED OF LIGHT CAN'T AFFECT WATCHES.

Understanding a new concept of time dilation

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nillo.gestorjuridico@bol.com.br

Abstract

The Relativity concept since Einstein tells: *because speed of light is the same for all inertial observers there is time dilation for different observers.*

However, by Lorentz's equation this <u>concept</u> is wrong.

Lorentz equation doesn't show speed of light affect watches.
Just the <u>speed v</u> of object in motion is variable number in the equation. Look at equation.

So the Lorentz's equation shows clearly that speed v of moving object causes changing in time of his watch. <u>Just if changing speed v of moving object</u> can changes the factor Lorentz's y in the equation. <u>Never speed of light changes factor y.</u> The time dilation exists, but this is the true concept. As you will see in this article just speed v of moving object can affect watch. Speed of light never changes, if it never change never affect time dilation "y" in the Lorentz's equation. Please change the <u>concept</u>.

Are you a physics teacher? So read this article carefully. Sorry, maybe there has been wrong teaching for over a hundred years. The cause of time dilation is not the invariance of the speed of light. The cause is another. It is necessary to change teaching. IF WE STUDY THE EINSTEIN TRAIN STOPPING AND STARTING THE MOVEMENT WE WILL UNDERSTAND THAT IT IS NOT THE LIGHT THAT SLOWS THE TIME ON THE WATCH.

---------------------------- (End of abstract)-------------------------------------

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

EQUAÇÃO FATOR DE LORENTZ

Lorentz's equation (y Lorentz's factor)(v speed of object)

"Lorentz's transformations imply that a body's inertial mass increases with its speed; which makes it offer ever greater resistance to any change in its movement and it is not possible to accelerate it to a speed higher than that of light ... "
(from Physics Puc SP BR)

FOR THE LORENTZ EQUATION USED IN THE CASE OF TIME DILATATION SINCE 1905 BY EINSTEIN, IF THE SPEED v OF AN OBJECT IS EQUAL TO ZERO (WITHOUT MOTION), THE LORENTZ FACTOR OR y IS EQUAL TO 1, THIS IS, IF THERE IS A CLOCK CONNECTED TO THE STOPPED OBJECT, THE TIME MARKED BY IT WILL BE THE SAME, 1 = 1, MARKED IN AN IDENTICAL CLOCK THAT IS OUTSIDE THE OBJECT AND ALSO WITHOUT MOVING. HOWEVER, THE SPEED OF THE LIGHT WILL ALWAYS BE THE SAME FOR THE TWO WATCHES; THE SPEED OF THE LIGHT IS INVARIABLE.

BUT IF THE STOPPED OBJECT CONTAINING THE WATCH IS SET IN MOTION THE WATCH IN IT BEGINS TO LATE TIME LESS THAN 1 WHILE THE WATCH IN STANDING "OUT OF THE OBJECT" CONTINUES SHOWING TIME AS 1. ON THE CLOCK AT REST OUTSIDE THE OBJECT THE TIME IS EQUAL TO 1; IN THE CLOCK OF THE MOVING OBJECT THE TIME IS LESS THAN 1. THE SPEED OF LIGHT CONTINUES TO BE THE SAME FOR THE TWO CLOCKS. NEVER SPEED OF LIGHT CHANGES.

THEREFORE, WE CAN CONCLUDE: WHAT EXPANDS TIME IS NOT THE SPEED OF LIGHT INVARIANCE. THE CAUSE IS MOVEMENT OF A BODY. WHY IS IT THE MOVEMENT? OF COURSE THE MOVEMENT GENERATES KINETIC ENERGY. KINETIC ENERGY GENERATES INERTIA. INERTIA PRODUCES SLOWDOWN IN THE MACHINISM OF THE CLOCK OF THE OBJECT IN MOTION DELAYNG IT, SO DILATATING THE TIME ON THE CLOCK. WHAT PRODUCES THE TIME EXPANSION IN THE WATCHES IS NOT THE SPEED OF LIGHT INVARIENCE AS IT SAYS SINCE 1905 BY RELATIVITY. THE CONCEPT OF RELATIVITY OF TIME DILATATION HAS BEEN WRONG FOR MORE THAN 100 YEARS. THERE IS A WRONG UNDERSTANDING BECAUSE THE WATCH IS A PHYSICAL OBJECT MATERIAL. ONLY PHYSICAL MATERIAL OBJECTS WHICH HAVE MASS CAN BE AFFECTED BY INERTIA AND MODIFY YOUR BEHAVIOR. ONLY LIGHT AND OTHER WAVES THAT HAVE NO INTRINSIC MASS ARE NOT SUBJECT TO INERTIA'S ACTIONS AND THEREFORE MAY PROPAGATE TO THE SPEED OF LIGHT. LIGHT CAN NOT AFFECT WATCHES.

Stopping Einstein's train and understand time dilation

To teach time dilation Einstein showed the example of a train.

For the observer inside the train traveling along with the beam of light from a lantern fixed to the train floor, the beam of light in vertical motion bounces off a fixed mirror on the roof of the car and is reflected back to the lantern also in a vertical line.

For the observer inside the train, it doesn't matter if the train is stopped or at very high speed: the beam of light will always travel the same distance from the lantern to the mirror and back to the lantern.

Einstein's explanation for teaching time dilation is given when the train is moving. He shows that when the train moves, the observer inside the train continues to see the same distance covered by the light beam from the lantern to the ceiling mirror and back to the lantern. This is true. Einstein continues to teach that the observer at rest outside the train sees the light from the lantern go up on a diagonal and after bouncing off the mirror go back on another diagonal to go back and reach a lantern that is already far away and thus the beam of light for the external observer and at rest it forms two hypotenuses one going up to the mirror and the other going down to the lantern. This is true. We agree that the observer at rest outside the train sees the light travel a far greater distance than the distance seen by the observer inside the train. With this demonstration Einstein teaches that time the observer's clock inside the train records less time than the observer's clock at rest outside the train. This is true because the distances traveled by the light were different for the two observers.

Please reason now: does light because it has a constant speed and is the same for all observers, does it have any power to act on observers' clocks? I repeat the question: does light have any power or force to act on observers' clocks? Answer me please.

Of course not, light is only used for the mathematical calculation of time t, but it does not act on the clock turns, no, no, no.

So why, when comparing the observer's clock inside the train with the observer's clock at rest outside the train, are the two clocks out of date? Why is the observer's clock inside the train delayed and the observer's clock resting outside the train is in advance? We understand that it is not the invariance of light that affects the turns of the clocks. So what is the cause that causes the watches to become out of sync?

TO UNDERSTAND WE HAVE TO STOP THE EINSTEIN RELATIVITY TRAIN AND CHANGE THE TEACHING OF TIME DILATATION

Pay attention now please: At the beginning, if the train is stopped the distance covered by the beam of light seen by the observer inside the train is the same

distance seen by an observer standing at rest outside the train. With the train stopped, the observer's clock inside the train and the observer's clock outside the train are set and synchronized there isn't time dilation. Remember when the train was stopped the distance traveled by light to the observers inside the train and outside was the same. When the train moved, the speed of light did not change, but the distance traveled by it increased for the outside observer, so it is the movement of the train that causes time dilation. When the train starts to move, the observer's clock inside the train starts to slow down. Increasing the speed of the train will further delay the clock compared to the watch of the observer outside the train. Why does time dilation in watches occur if the invariance of light is not the physical cause of the phenomenon? The cause is the movement of the train or the speed of the train. Higher train speed means greater clock delay on the train. However, something else occurs. The train's speed produces kinetic energy. Kinetic energy produces INERTIA (It was Einstein who taught that energy has inertia like matter has).

According to Newton's first law, "inertia is the opposition or resistance that matter makes to change its state of rest or movement".

INERTIA SLOWS DOWN OR FREES THE MOVEMENT OF PARTICLES

When particle accelerators in the 20th century showed that the electron allowed itself to accelerate only to a limit speed, and the more energy applied to the accelerator the less the electron would advance even if all the energy in the world was applied, so Einstein was asked why the electron no longer allowed to be accelerated. Einstein replied: "It must be due to inertia". So, we conclude that the increasing inertia slows or prevents the acceleration of particles.

At 2014 in the 15-year experience that German scientists did with lithium ions THE DILATATION OF TIME WAS PROUVED
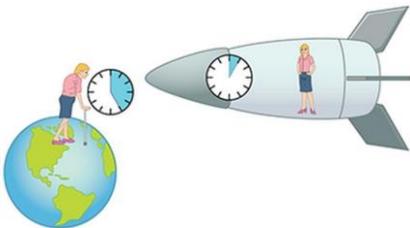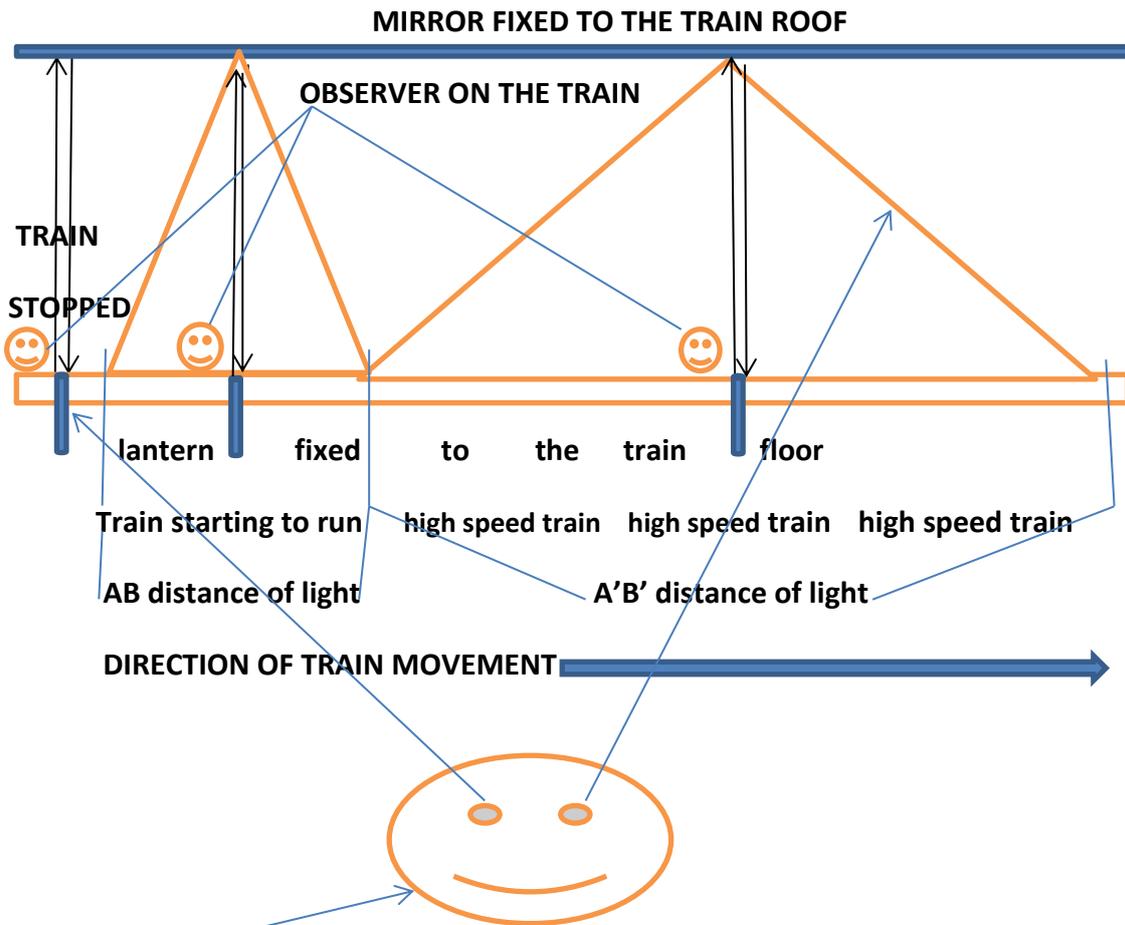

(Photo Astro.PT.com)

I think inertia as the cause of particle retardation was proven in 2014 in the 15-year experience that German scientists did with lithium ions. They accelerated lithium ions to 100,000 km / s, which worked like a clock in motion. They compared lithium in motion with lithium ions at rest. The transitions of the particles in the moving lithium were slower than the movement of the particles in the resting lithium. They proved that time passes more slowly on a moving clock. I think it was inertia!

MUON'S LONG LIVES. WHY THAT?

As occur in all time dilation by movement I think the same happens in muon's long lives. As the muon particle develops at a very high speed after being originated in the high atmosphere and then it is detected on the ground having a long live increase, not decreasing until about 36 microseconds and if we compare its life with the normal life of the resting muon, which is only 2.2 microseconds, we realize that it can only be INERTIA produced by the speed (also kinetic energy) of the muon that slows down its decay. Then inertia slows the clocks in motion, inertia slows down the transitions in the Germans' experience and inertia slows down the decay of muons at a very high speed. We conclude: INERTIA TAKES BACK TIME or time dilation on clocks

The greater or lesser inertia in the clocks due to their movements hinders or facilitates their turns more or less. Inertia is the cause of time dilation in watches; not the light. Sorry friends.

Don't wait 200 years more. Stop now the Einstein's train and re-teach the cause of time dilation

MIRROR FIXED TO THE TRAIN ROOF

OBSERVER ON THE TRAIN

TRAIN

STOPPED

lantern   fixed   to   the   train   floor

Train starting to run   high speed train   high speed train   high speed train

AB distance of light   A'B' distance of light

DIRECTION OF TRAIN MOVEMENT

OBSERVER AT REST OFF THE TRAIN. He sees the train stopped first and then moving
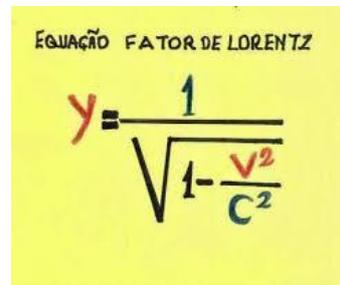
To calculate the time dilation use the Lorentz equation shown here. The movement of the train or any other vehicle is the "v" square. But now you know, what dilates time on clocks is Newton's inertia.

$$\Delta t = \frac{\Delta t_0}{\sqrt{1 - \frac{v^2}{c^2}}}$$

train speed square

observer's watch on the train affected by high inertia   observer's watch at rest

EQUAÇÃO FATOR DE LORENTZ

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

More:... Gravitational field also affects the clock due to the inertia caused by the weight and affects the clock by registering the time dilation. But the observation is only on the spot.

Author NILLO GALLINDO - 81 YEARS OLD (2021)

E-mail TO BRAZIL

nillo.gestorjuridico@bol.com.br

TO GUYS. TO ALL PEOPLE OF *GENERAL SCIENCE JOURNAL*.
TO LOVED *WALTER BABIN* (on my mind, in memorian)

BEST REGARDS.