The paradox of twins is: more speed as more life, if the muon particle proves it, so Einstein was right.

1

Copyright © Nillo Gallindo

nillo.gallindo@bol.com.br

Brazil - Minas Gerais State – Extrema city

Abstract

Einstein is right on the twin paradox. But I'm telling here a secret about the twin paradox and this secret or mystery Einstein did not realize.

Einstein wrote in his papers:

"If two clocks are synchronized while in close proximity to each other, then one of them is taken away for some time, perhaps on a journey, then they are brought together, they will no longer be in tune with each other. The clock which has been in motion will have recorded time more slowly than the clock at rest."

This words are telling : more speed as more life.

The muon particle proves it Einstein was right.

The particle muon at rest live 2.2 microseconds. After 2.2 microseconds of existence the muon particle decays into smaller particles.

Muon particles originated by cosmic rays at 9000 meters altitude, if they lived only 2.2 microseconds they "die" after traveling about 600 meters and would become smaller particles.

But what happens? Muon particles are found on the ground after traveling 9000 meters.

Muon particles originated by cosmic rays at 9000 meters altitude, if they lived only 2.2 microseconds they "die" after traveling about 600 meters and would become smaller particles.

But what happens?

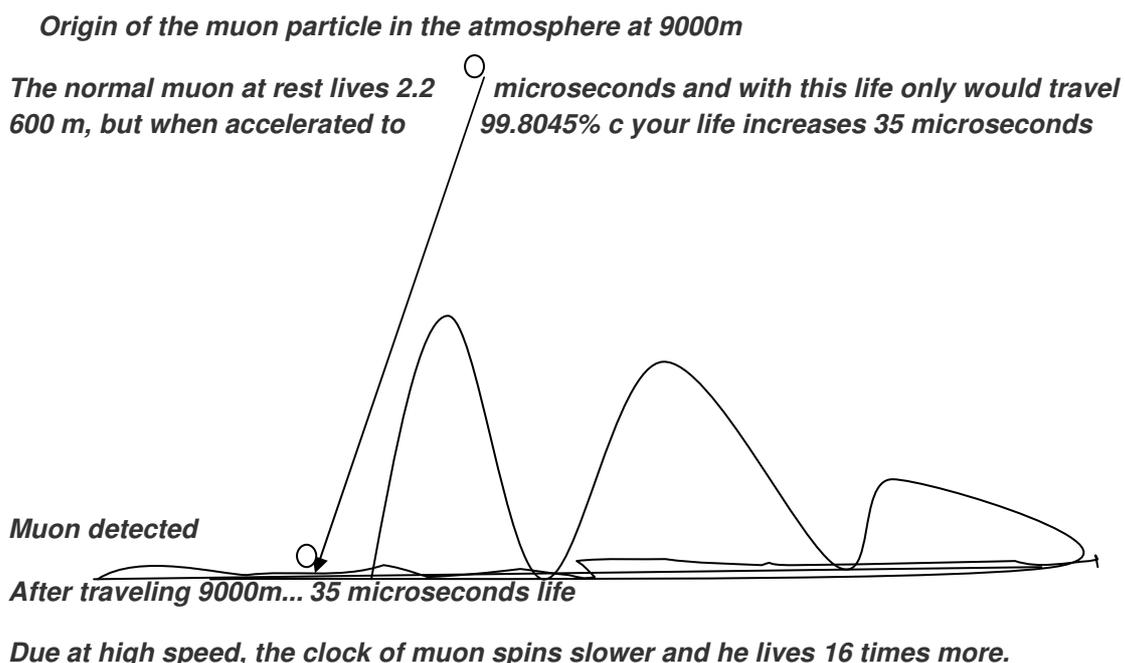Muon particles are found on the ground after traveling 9000 meters.

These muon particles traveled that great distance because cosmic rays accelerated them at high speed near the speed light that is 99.8045% c.

At this speed, the Lorentz factor to calculate a difference of a clock at rest and flying at 99.8045%c is about factor 16.

The truth is, the vast distance traveled by the muon particle meant 2.2 microseconds it exists, multiplied by 16 Lorentz factor and thus the particle muon existed for 2.2 x 16 = 35.3 microseconds about in reality. The evidence is they are found after traveling 9000 meters and not 600 meters away and there are not only 2.2 microseconds but 35.2 microseconds!

What does this prove?

Proves that Einstein was right. It is correct the concept taught by Einstein that says higher speeds increase existence. So the story of the twins paradox is possible.

Origin of the muon particle in the atmosphere at 9000m

The normal muon at rest lives 2.2 600 m, but when accelerated to   *microseconds and with this life only would travel 99.8045% c your life increases 35 microseconds*

Muon detected

After traveling 9000m... 35 microseconds life

Due at high speed, the clock of muon spins slower and he lives 16 times more.

OK! Einstein's theory is proven, but Einstein did not say what the "secret" that causes the paradox. He did not say what makes the clock turning slowly.

This essay shows the secret of the clocks paradox in relativity. What is the secret? You will understand according my theory the cause is inertia. Pay attention.

As inertia is produced?

This gives rise to inertia when the particles or the clock are flying? The particulate mass and the mass of the clock NO ADDITION because mass is invariant. Only increases the kinetic energy caused by the movement.

Newton taught that inertia is the property of matter, that is:

"Inertia is the name we give to the property of a body that makes it resist a change in its motion."

Inertia exists in the gravitational field caused by gravity because the action of gravity produces weight on the body. Weight is inertia, more weight more inertia. If decreasing the gravity reduces the weight and inertia decreases.

So, due inertia, according to my theory, clock on the beach (at sea level) rotates slower than the clock on the artificial satellite in orbit to 20 km high. On the beach gravity is stronger than in the orbit of the satellite. To the same body, inertia on the beach is larger than in the orbit of the satellite. This is the action of inertia due to gravitational mass (mg).

But what produces inertia away from the gravitational field?

EINSTEIN TAUGHT US THAT ENERGY ALSO HAS INERTIA, AND THEN INERTIA IS ALSO ENERGY PROPERTY.

Well, when there is no gravitational field, inertia is produced by energy and is the field of inertial mass.

Gravitational mass and inertial mass are both concepts of Newton. Inertial mass and gravitational mass are the same thing but Newton could not explain why. Einstein, in 1907, when he thought of the mental experience of a lift he explained the similarity mi and mg.

So inertia produced where there is no gravity, is not inertia produced by weight. If the body is in motion, inertia where there is no gravity is produced by energy, energy of motion, which is the kinetic energy. Pay attention: On field without gravity out what affect the clock in flight is the HIGH INERTIA caused by kinetic energy produced by the high speed. Remember Einstein: HE TAUGHT THAT ENERGY ALSO HAS INERTIA, AND THEN INERTIA IS ALSO ENERGY PROPERTY.

The Lorentz equation has a rule: if increases the speed of the spaceship decreases the speed of the on board clock. Why? Because increases INERTIA. High inertia does slower the rotation of the clock. Remember: **"Inertia is the name we give to the property of a body that makes it resist a change in its motion."**

So the INERTIA forces the machinery of watch **resist to change of your motion. Inertia is the cause of the watches' paradox.**

Inertia is the great secret that makes a watch on board a spaceship in high speed to spin slower than an identical clock on Earth. **Inertia as the cause of the watches paradox, this mystery Einstein did not realize.**

How the inertia acts in the case of muon particles live more, that is, live 35 microseconds instead of 2.2 microseconds?

Muon particles live 2.2 microseconds when at rest.

When they are accelerated by cosmic rays up to speed 99.8045% and they live 35 microseconds. This great speed appears high inertia. Remember, "Inertia is the name we give to the property of a body that makes it resist a change in its motion."

Wich is the movement that the muon particle resists do?

The muon particles at high speeds and with great inertia resist be split into smaller particles and so live 35 microseconds instead of 2.2 microseconds when are split at rest. So, at rest the muon particles live less. At high speed due high inertia lives more. See calculation by the Lorentz equation.

If v is 99,8045%c Lorentz equation factor as y results 16

According to the Lorentz factor, to 16 microseconds elapsed on the clock of the muon particle at rest are equal to 1 microsecond in muon particle clock speed 99.8045% c. Then, 2.2 microseconds (life muon at rest) x 16 (Lorentz factor) = 35.2 microseconds life muon in speed) or 2.2 x 16 = 35.2. That is, the high speed increases the life or high inertia increases the life of the muon particle.

EQUAÇÃO FATOR DE LORENTZ

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

The same imagination we can do about the life of a man. Imagine the SUPER MUON MAN.

THE TWIN SUPER MUON MAN

There are 2 twins. In 2000, one immediately after birth is allowed to stand on the ground and the other makes the trip at a constant speed equal to the speed of the muon particle, ie 99.8045% C. The traveling twin is called Super Muon Man.

Imagine the duration of life of twins be 80 years each.

Thus, in the year 2080 on Earth dies the twin who stayed at rest.

According to the Lorentz's equation, when spent 80 years on Earth, in the spaceship of Super Man Muon the clock indicates five years, and so he was just a child of five years old. Remember, the Lorentz factor for 99.8045% of the speed c is $y = 16$, ie, for every 16 years at Earth the clock of space ship indicates one year, so 80/16 = 5. So the calendar showed: year Earth 2080 but on board space ship year 2005. Remember:

When in 2080, the twin at rest on Earth dies, the twin in spaceship was only 5 years old still a child.

If the man muon live 80 years indicated in the clock of space ship, the calculation is 80 x 16 (Lorentz factor) and when he lives 80 years in spaceship, on Earth the calendar will indicate the year 3280 and he is traveling 1280 years in Earth calendar but he is just 80 years old on the spaceship.
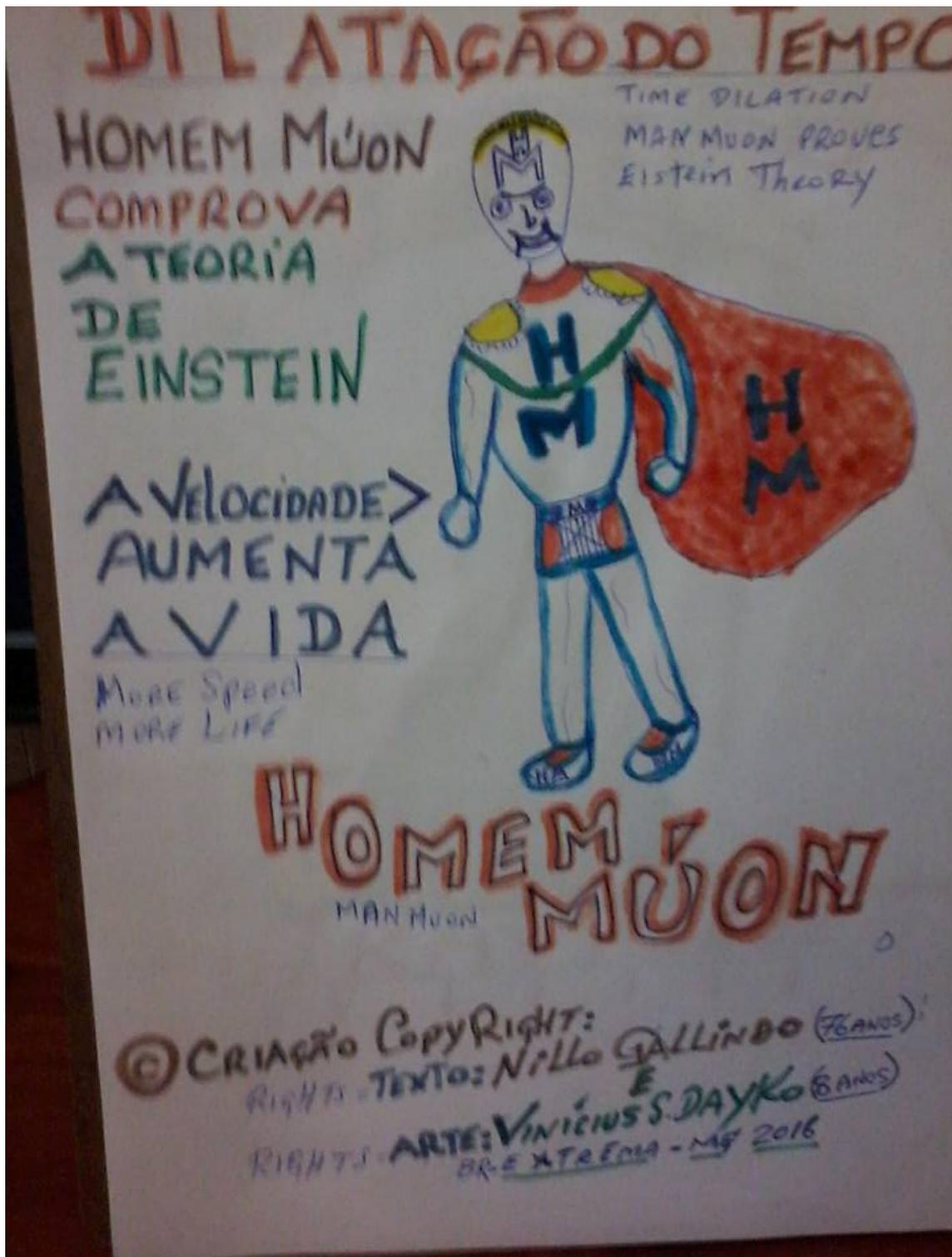
$$(16)\ y = \frac{1}{\sqrt{1 - \frac{99,8045\%.c^2}{300.000^2}}}$$

MUON $2,2_{MS} \times 16 = 35_{MS}$

$$(16)\ y = \frac{1}{\sqrt{1 - \frac{99,8045\%.c^2}{300.000^2}}}$$

HOMEM MÚON $80_{ANOS} \times 16 = 1280$ ANOS
MAN MUON   YEARS

CALENDÁRIO $\underset{ANO}{2000} + \underset{(ANOS)}{1280} = \underset{ANO}{3280}$

The twin paradox is: more speed, more life. The particle muon proves that, then Einstein was right. My twin man muon also proves: more speed, more life. And what makes live more due high speed? Of course the inertia makes that. **REMEMBER:**

Muon particle lives at rest 2,2 m.s. but if it is v 99,8045%c lives 35 m.s.

Muon man lives 80 years at rest, but if he is v 99,8045%c lives 1280 years