

3.6. MONODETERMINISM AND POLYDETERMINISM

The great majority of events are polydeterministic. Mendel has shown, that the same cause may have different effects, each one with its probability. Polydeterminism is much more frequent than monodeterminism.

BIBLIOGRAPHY

- ALLONI E., RUIVAL H. (1976). Teoría Especial de la Relatividad. Buenos Aires.
- PAPADAKIS J. (1934). From an Ecological and Psychological Point of View there is an abyss between Man and All Other Species. The three Steps in the Evolution of Living Beings. Cultural versus Genetic Evolution. Inaugural lecture in the University of Thessaloniki.
- (1979a) Some considerations on Heisenberg Uncertainty Principle. Buenos Aires.
 - (1979b) Some Considerations on Relativity Theory. Buenos Aires.
 - (1979c) Further Considerations on Relativity Theory. Buenos Aires.
 - (1979d) An Hypothesis on Light Velocity and Relativity of Space and Time. Buenos Aires.
 - (1980) Is Time Relative? Slightly Amended Classical Mechanics Fit All known Facts. Buenos Aires.
 - (1981) A Physical Theory, that Unifies Classical and Quantum Mechanics. Buenos Aires.
 - (1985) Is Time Relative? Classical Mechanics Fit All known Facts. Quasars etc. may Decide the Question. Research Suggestions. Athens.
 - (1987) Light Velocity and Relative Matters. Satellites may Decide the Question. Athens.
 - (1988a) Research Suggestions on Fundamental Problems of Physics. Athens.
 - (1988b) Gravitation, Time Dilation, etc. The Need of Certain Fundamental Research in Physics. Athens.
 - (1988c) Newton's Physics. Amended to Incorporate All Later Advances. Athens.
 - (1989a) Experimental Apparatus for Fundamental Research on Radiation. Athens.
 - (1989b) Errors in Our Days Physics and the Need of Research. Athens.
 - (1990) Fundamental Science. Athens.
 - (1992) Our conception of the Universe and Relativity theory, etc. Athens.
 - (1992) Light velocity, relativity theory, and uncertainty principle. Reflexion is a collision, and that changes the problem. Athens.
 - (1992) Relativity theory, uncertainty principle, etc. Further discussion of the consequences of the fact that reflexion is a collision. Athens.
 - (1994) Relativity theory, a critical note. Athens.
 - (1995a) Fitzgerald-Lorentz contraction, the famous relativistic β , basis of relativity theory, is an error, that passed unnoticed during a century.
 - (1995b) Some modifications of physical theory, after the findings, that Lorentz contraction and the relativistic β are an error.

Η εκτύπωση τέλειωσε στις 20.5.95 στις Γραφικές Τέχνες:

ΓΙΩΡΓΟΣ ΠΑΠΑΝΙΚΟΛΑΟΥ ΑΒΕΕ, ΑΣΚΛΗΠΙΟΥ 80

114 71 Αθήνα, ΤΗΛ. 36.24.728 - 3609.342, 3601.605 FAX: 3601.679

FERMILAB

JUL 28 1995

06106195
1

WHY FITZGERALD-LORENTZ CONTRACTION IS AN ERROR, AND MODIFICATIONS OF PHYSICAL THEORY THAT THIS FACT IMPLIES. THIRD PAPER

by J. Papadakis
of the Academy of Athens Academy

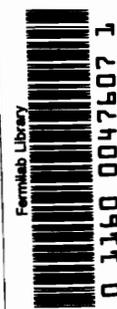
1. INTRODUCTION

In a previous paper (Papadakis 1995a) it has been shown, that Fitzgerald-Lorentz contraction is an error; and in another paper (Papadakis 1995b) we have discussed the modifications of physical theory, that this finding implies. This is a complement of these papers; it brings more proofs of the fact, that Fitzgerald-Lorentz contraction is an error, and it extends, a little, the matters, in which a modification of physical theory is needed.

2. WHY FITZGERALD-LORENTZ CONTRACTION IS AN ERROR

2.1. At the time of Michelson experiment, it was believed, that Earth's rotation was affecting the distance between two points on Earth's surface. Michelson experiment has shown, that such influence does not exist. But the idea was so deeply rooted, that in spite of the results of Michelson experiment, the error has not been abandoned during one century.

To explain the discrepancy between the results of Michelson experiments and the prevailing opinion that Earth's rotation affects the distances on Earth's surface, Fitzgerald and Lorentz separately, launched their theory of contraction. The theory is gratuitous, there are not experiments or observations sustaining it. A change of the length of a body, its reduction to practically 0, is not conceivable, it entails a modification of the whole structure of the body, which is the result of a long and complex process, which differs enormously from body to body; to pretend that in a very short time, the body becomes a very slim leaf, is something, that cannot be accepted, unless experimentally demonstrated. The formula $L' = L(1-v^2/c^2)$ may be even interpreted, that at c velocity the body disappears. Moreover the relativists pretend, that the mass of the body becomes infinite; and the two assertions, contradict one another. The structure of a body is the result of a very long process, that cannot be completed, during the acceleration of a body. Bodies contraction is perhaps the most illogical process, that has been proposed in the history of science. And it has been almost universally accepted, during almost a century. The reason may be that, it has been proposed, or accepted by outstanding scientists.



— FRINT-95-31

Practice shows, that only very small bodies can be accelerated, and big bodies never move with high velocities.

2.2. Fitzgerald-Lorentz contraction has been easily admitted, because at that time it was not known, that the equivalent of a unit of matter is c^2 units of energy. Therefore, the scientists have been surprised, when it has been discovered, that light velocity is 300.000 km; they declared light velocity, a universal constant, light the «rebel» of nature, and c the higher limit of velocities.

But now we know, that the velocity of light is c , because the energy of a photon is vc^2 , v is the frequency; its mass is vc , and its velocity is necessarily $vc^2/vc=c$. The universal constant should be not c , but c^2 ; and light is not the rebel of nature. Velocities higher than c , are not observed because, even when all the mass of a body is energy, as in the case of photons, the velocity cannot surpass c , because whatever increase of energy, would increase in the same rate, both the energy and the mass, and consequently the velocity could not increase. It may be a combination of attraction by another body and internal energy, could increase the velocity, beyond c ; but gravitation is only powerful in the lower atmosphere of big stars; and this atmosphere does not permit high velocities. So that it is probable that conditions never permit velocities higher than c .

3. MODIFICATIONS OF PHYSICAL THEORY, THAT THE FINDINGS, THAT LORENTZ CONTRACTION IS AN ERROR, IMPLIES

For more details, see 1995b paper

3.1. MECHANICS

3.1. We know now, that the energy of the force that causes the motion, passes from the motor to the object, which begins to move, and its mass increases. But it seems, that this storage of energy in the mass of a body, which consists not only of energy, but also of matter, is very difficult, at high velocities; and great part of the energy is lost as heat, more especially when the body is big; there are also differences between bodies of equal size. With big bodies the velocity ceases to increase very rapidly, and velocity c is never approached. The maximum velocities of big objects, f.i. stars, are very low, compared to that of minute objects. We have already mentioned these facts.

Much investigation is needed; and it may be very fruitful from a technological point of view; it is also curious, that lasers have not been tested.

3.2. Relativists pretend, that velocities higher than c , are impossible. But theoretically that is not certain. It is chiefly due to the fact that an increase of the energy included in the mass of a body, at c velocity, would increase equally the energy, and the mass, and the result would be zero.

3.2. LIGHT

3.2.1. Light Velocity

Light velocity in vacuo is c , because the energy of a photon is vc^2 , its mass vc , and consequently its velocity in vacuo is $vc^2/vc=c$. But when the velocity of light has been measured, it was not known, that the equivalent of one unit of matter was c^2 units of energy; and much time passed before that; therefore the discovery, that the velocity of light is 300.000 k.m. surprised the scientists; they considered light as the rebel of nature, c as a universal constant, etc. The universal constant is c^2 , the equivalent of 1 unit of matter in units of energy, and c is only a consequence of this fact. Light is not the «rebel» of nature; and such rebels do not exist. Light velocity needs some time, minimal naturally, to increase from that of the light source, or mirror, to c .

3.2.2. Light Duality

Light duality does not honour science. And it is time to terminate with it.

3.3. ELECTROMAGNETISM

Maxwell (1831-1879) is next to Newton, one of the scientists, who more contributed to physics. But he died too early, before the abandonment of his ether theory, after Michelson experiment. And it had not time to adapt his equations to this fact. That is why some of his equations need a revision.

Fields have not a real existence. They are creations of human mind, and only serve to show, how gravitation, attraction or repulsion, increase or decrease, when the distance between two bodies increases, or several attractions or repulsions combine. Maxwell has not survived to modify some of his equations, and it is time, that others do that. And the same is needed with gravitation. Naturally no particles are sent from a body to another. We should not forget that particles have a mass, energy, e.t.c. And we cannot invent gratuitly, new kinds of particles. That applies also in the case of gravitation.

3.4. RELATIVITY THEORY

It is evident that the mass of a body at velocity c cannot be infinite. Even the sum of the masses of all bodies could not be infinite. Infinite masses, etc. do not exist in positive sciences.

3.5. SPACE AND TIME

Time is only conceptual; it has not material existence; and it cannot have a form. To discuss if time, is curved or not, is the same as to discuss, if intelligence is red or blue.