ISSN: 2754-4753

Journal of Physics & Optics Sciences

SCIENTIFIC Research and Community

Research Article

Open Access

Relativity Tied to Repulsion Gravity

Joseph E. Brierly

Ph.D., Wayne State University, Detroit, MI

ABSTRACT

This article refutes the Time Dilation Equation and Length Contraction that are derived in the Special Theory of Relativity. The conclusion reached in this article is that Time Dilation and Length Contraction cannot be characterized by simple equations due to repulsion gravity. The conclusion follows from gravity being a natural force of repulsion rather than the assumption that gravity is an attraction force. That gravity is a repulsion force follows from the Sir Arthur Eddington experiment designed to prove that gravity affects light. Few looked at that experiment as anything other than proving Einstein's General Theory of Relativity that suggested gravity would affect light. The experiment went beyond what most imagined it accomplished. It surely verified that gravity affects light. But it did more than that. The experiment showed that gravity is a force of repulsion and not attraction as most believed. That gravity is repulsion and not an attraction force indicates that the relativity time dilation equation derived in the Special Theory of Relativity is intractably undecidable likely subject to Godels Incompleteness theorems.

***Corresponding author**

Joseph E Brierly, Ph.D., Wayne State University, Detroit, MI. E-Mail: jbrierly@comcast.net

Received: March 24, 2021; **Accepted:** March 31, 2021; **Published:** April 25, 2021

Introduction

This article is inspired by a previous article titled "Gravity Repulsion" by the author that showed gravity is not an attraction force but is a repulsion force [1]. The Sir Arthur Eddington experiment was designed and thought to be a way to prove that gravity affects light in accordance with Einstein's General Relativity. The experiment required that a syzygy occurs blocking out the rays of the sun when the moon, sun and earth are lined up to block the light of a star behind the sun. To prove gravity affects light a star blocked out directly in the path of the syzygy behind the sun was then expected to be deflected by the sun's gravity and appear to be in another location other than its actual location. Indeed, the experiment proved that light was deflected by the sun verifying that gravity affects light.

But the Eddington experiment did more than prove gravity affected light. It proved that light was repulsed by the sun. Were gravity to be an attraction force then one might conclude that the light emanating from the blocked star would simply be drawn into the sun in which case the star light would not be visible. Since that did not happen the experiment suggests that gravity is not an attraction force but is a repulsion force that makes the light from the star visible in a different location than its actual location.

This observation suggests that the science of Physics needs a major change in its current belief in gravity as an attraction force. The point of this article is to investigate the equations that address the measurement of time non-simultaneity in light of the effects of repulsion gravity. Current theory of relativity suggests that two separated viewers might record the same incident occurring on their clocks at different times from each other. This article suggests that the relativity calculation is not consistent with gravity as a repulsion force. And, in fact, likely is subject to Godel's undecidability incompleteness theorems. In addition, there exists a special case of incompleteness of Godel's theorems that was formulated by Alan Turing relative to software algorithms that also might affect the special relativity theory.

Godel's Incompleteness Theorems

There are two incompleteness theorems listed in the Stanford Encyclopedia of Philosophy [2]. Both theorems concern the limits of provability in formal axiomatic theories. Next is a quote directly from [2]. "The first incompleteness theorem states that in any consistent formal system F within which a certain amount of arithmetic can be carried out, there are statements of the language of F which can neither be proved nor disproved in F. According to the second incompleteness theorem, such a formal system cannot prove that the system itself is consistent (assuming it is indeed consistent)."

Godel's incompleteness theorem is cited because it has application to the anomaly of non-simultaneity. In this article F is viewed as the formal structure of the Theory of Special Relativity. The possible connection to incompleteness is addressed later in this article.

Godel upset many mathematicians looking for solutions to difficult mathematical problems like the Fermat last theorem and the Four-Color problem. Both of these seemingly insurmountable problems were found to have a complete solution by the author in references [3, 4]. Some mathematicians thought there was a possibility of Godel's incompleteness theorems might have applied to the long-standing Fermat's Last two-page solution claimed by Fermat in the 17th century. Fortunately, Godel's incompleteness theorems did not negate the solution of the author's two-page solution to the Fermat's last problem. Currently, there exist age old unsolved problems that have succumbed to the effects of Non-decidability. It

is believed that the Continuum Hypothesis cannot be solved due to Godel's Incompleteness theorem. So, from a purely philosophical point of view it is worthwhile to consider that Time Dilation may be an insurmountable problem in F due to undecidability incompleteness theorems.

Time Dilation Equation

There exists several forms and proofs of the Time Dilation Equation. The following is the one employed here.

$\Delta t' = \Delta t / \sqrt{[1 - v^2/c^2]}$ where t is the proper time in the frame of reference moving with the clock. Δt' is the relative time, viewing the same clock in another reference frame. V represents the speed of the clock relative to the outside observer. C is the speed of light squared. This form of the Time Dilation Equation is derived in reference [5].

We assume that the moving item is a massless Photon. Generally, Physics gives credence to the Photon as massless. The anomaly in Time Dilation comes as a result of movement with the clock assigned Δt.

Repulsion Gravity

Given that gravity is repulsion and a photon is assumed massless an anomaly in the Time Dilation Equation needs to be addressed. In a previous article [1] by the author it was theorized that Gravity is an omnipresent repulsion natural force found everywhere in the universe. If repulsion gravity is everywhere then even a perfect vacuum has gravity exerting an influence on anything that enters the vacuum. Assuming that a photon has no mass then how does a photon behave in an otherwise vacuous region? Not having mass means the photon exerts no repulsion gravity of its own. Either the gravity pressing on all sides up and down on the massless photon renders the photon totally immobile due to the equal vector force on the photon in every direction or the photon finds a way to escape the gravity. This question is likely undecidable in F.

Therefore, there is the escape possibility that needs to be considered. We do not know whether there is bias in the way gravity behaves locally. If gravity force is not equal everywhere locally then the possibility exists that the photon could follow a path of least resistance and end up flying to some unknown place in the universe. Likely this situation is an ideal candidate for the Godel theorems. At this moment we have not found a way to measure whether gravity has local bias. However, due to the nature of what we know about gravity we can surmise that gravity on the edge of the open connected region of space has less effects at the boundaries of the known universe because it a long way from the center of mass of the entire universe. I.e. gravity likely varies in force with bias in the universe globally but perhaps not locally. Possibly at some point physicists will answer this otherwise seemingly potential disaster for the Time Dilation and Length Contraction Equations on victimized by Godel's undecidability and incompleteness theorems.

The inflexible relativity time dilation equations may simply be an inoperative formal algebraic expression with no actual description of physical reality due to repulsion gravity. That is the anomaly. Said another way speaking realistically the relativity transformation used to predict Time Dilatation or Length Contraction may just be an interesting algebraic gyration rendering a neat plausible algebraic expression with no bearing on physical reality.

It is well known that Einstein battled furiously with mind experiments to try and justify his deterministic mechanical somewhat plastic nonflexible view of the universe with his General and Special Theory of Relativity. Quantum physicists debunked the deterministic philosophy of the universe to a great extent with the Heisenberg Uncertainty principle and quantum physics experimentation. From what we now know the universe is a highly probabilistic creation rather than one that submits slavishly to formal inflexible equations.

The next logical sequence in this paper would be to consider how repulsive gravity might affect other physical particles with mass given the nature of repulsion gravity. For example, how would a lone electron behave in a vacuous region? An energized electron has been shown to behave oddly in homogenous regions according to a research article now being reviewed by the author. The electron according to this article under review goes into a repetitive pattern unless in a non-homogeneous region. Investigating behavior of other entities subject to repulsion gravity should be the content of an exhaustive analysis in future physics research articles.

Relativity Transformation of Lengths

The special theory of relativity embraces the notion that length of a ruler can vary according to the relative velocities of two viewers at different locations one with the ruler traveling at its velocity and the other traveling at its velocity at a distance. Repulsion gravity debunks the notion that artificial transformation equations have the capability to prove that a ruler can vary in length according to the relative velocity of the viewer and the velocity of the ruler. Repulsion gravity debunks this notion just as it debunked the notion of time dilation.

According to Length Contraction as determined by the relativity length contraction equations an object of length l0 moving at a speed of vo relative to an observer going at velocity v will measure length l, where $l = l_0 \sqrt{1 - V^2/c^2}$. From this equation √1-v2/c2 is always less than 1 showing that moving objects are shorter than they are at rest with the ruler going at a constant velocity of vo. According to this equation viewers moving faster and faster theoretically could view the ruler becoming shorter and shorter as v approaches the speed of light. The transformation equation contraction, however, is in the length and not in the direction perpendicular to the velocity. This length contraction equation seems reasonable if one assumes the contraction occurs in a vacuum. The problem is that even in a vacuum repulsion gravity exists.

So, if we suppose a massless photon is going at the speed of light through gravity the photon is subject to gravity force vectors from all directions. In order to view the ruler from a location outside the ruler one would have to view the object by frequency waves coming from it. These waves include massless photons of light that would be distorted by gravity repulsion and any photon within the rays would be either frozen motionless by gravity vector forces from all directions or it would be like in the case of time dilation find an undeterminable path of least resistance subject to Godel's Theorem of undecidability. I.e. there is no way to really assess the length of the ruler traveling at a constant velocity of vo from an external location going at velocity v.

We have a dilemma in assuming that the artificial equations actually give accurate information. In fact, the situation is almost analogous to the magician who shows that a long metal pipe bends when wobbled by the magician. We know the metal pipe does not really bend. It simply is an illusion just like the illusion that gravity causes when trying to view an object moving at velocity v through the gravity field. The equations are artificial models of

what might be in a different world that has no gravity. As far as we know such a world is not possible.

General Relativity and $E=Mc^2$

Surely the equation that equates mass to energy via the speed of light actually works to some unknown degree or we would not have atomic energy. This equation explains the importance of inexact science made possible by artificial reasonable seeming equations. Often mechanical equations capture some of the factors that direct towards reality. But they are not reality. The old saying goes. "Nothing describes anything better than itself". Mathematics describing the real physical world are nothing more than pointer models of likely reality. And the equation $E=mc^2$ does exactly point at the possibility of atomic energy conversion of matter.

We surmise that gravity causes unstable radioactive atoms with no way to prove it due to Godel's theorems. Best guess is that gravity is not completely without bias in how it affects atoms. So, atoms can be unstable and radioactive due to the nonhomogeneous way gravity affects atoms. We know radioactive elements tend to be higher in the number of protons and neutrons in their nucleus. Radioactivity is a result of the atom attempting to find a stable state of equilibrium.

So how does unstable atoms allow atomic energy? Best guess is that atomic energy is released by adding the action of a Cyclotron to the effects of existing gravity to the point that the already unstable atom can no longer bear the total force of the Cyclotron and repulsion gravity action resulting in the disintegration of the atom releasing the nuclear energy that held it together.

Conclusion

Given the analysis here of Time Dilation and Length Contraction what value do we place on the theory of relativity? What can be salvaged of the artificial transformation equations that only are mathematical equation models of what might be but impossible to verify due to Godel's Theorems and repulsion gravity? For sure we know that atomic energy exists. Also, we know that atomic energy behaves close enough to $E=mc^2$ to be of great value in producing atomic energy.

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