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The Simplicity of Disproving the Theory of Special Relativity

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Abstract

Einstein's theory of Special Relativity is founded on an error made by Hendrik Lorentz. It is not necessary to expose the mathematical inconsistencies of special relativity (SR), since the theory collapses by simply exposing the error made by Lorentz. In doing so, it not only causes special relativity to collapse, but also general relativity, and the many theories built upon these two deceptive theories. There are many claims of tests made which supposedly prove SR or GR, such as the eclipse of 1919, the Hafele-Keating experiment, GPS, the orbit of Mercury, and muons. The error of these will also be shown as well as an area of astronomy which has been negatively impacted by SR. The epistemology approach to special relativity: you can know it is a false theory when the theory requires deceiving the student for acceptance and the tests which support the theory can be proven false.

Keywords: special relativity (SR); Hafele-Keating; muons.†

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1. Introduction

Einstein's theories of special and general relativity collapse simply by revealing the error made by Hendrick Lorentz without the need for in-depth mathematics. Because of these false theories, science and education have been negatively impacted.

2. Disproving Special Relativity, simply

In most physics texts which have a section teaching special relativity, the bait and switch tactics of a magician are employed to deceive the student, first talking about conventional relativity, then switching the topic to light. Unlike false science, truth does not require deception for acceptance. Disproving special relativity does not impact the theory of mass equivalence ($E=mc^2$). The editor received Einstein's paper on special relativity on June 16, 1905, and it was published on September 29, 1905, while his theory of mass equivalence was received in September and published on November 2nd of that year. [1]

Professor Lutz Kayser (2015), Director of the Pacific Institute of Physics and Space Technology wrote: "SR and GR are not only counterintuitive but also illogical and false."[2] Like today's media squashing of negative publicity that exposes the truth concerning the Covid vaccine, "the failure of leading physics journals to accept papers critical of theories such as relativity, amounts to a particularly insidious form of censorship. It is one of the principal reasons for 100 years of stagnation in theoretical physics."[3]

As Einstein mused on the Lorentz transformations, he concluded "time is suspect", when he should have considered the error Lorentz had made. Special relativity's foundation is upon this error, and many other false theories are based upon special relativity.

If an atomic clock is placed on a mountain on the exact same longitude as another atomic clock at sea level, with both initially synchronized via the radio signal sent out by the Naval Observatory, it would soon be noticed that the elevated atomic clock is counting faster than the one at sea level and that difference between the two clocks would increase continually. Those who believe in special relativity claim that time is different for the observers at these two locations, but the meridian containing a star would pass over the zenith of both observers at the exact same instant, so how could it be a different time? Hence, there is a problem with special relativity. This article presents just a few examples to demonstrate how simple it is to show the error of special relativity. The concept that "time is suspect" reveals a lack of understanding of what time is.

Simply defined: time is a system of information exchange, how that God and men communicate events with respect to the rotation of Earth: how long it took God to create heaven and Earth, how long Jesus was in the tomb, what you did yesterday or plan to do next month, and how fast something travels, including the speed of light, cars, etc. and time itself all relate to the rotation of Earth. Prior to 1967, the definition of a SI, system international, second was defined as "the fraction 1/31,556,925.975 of the length of the tropical year for 1900."[4] Dr. Louis Essen, the British physicist who invented the ring-quartz clock, most accurately measured the speed of light, and invented the atomic clock, was one of two men to determine the number of oscillations of cesium to equal an ephemeris second of 1900. That definition was adopted by the IAU, International Astronomical Union, effective 1967. Soon, it was recognized that elevated atomic clocks counted faster than the ones at lower elevations. Many attributed the cause to special relativity, when the cause is simply that gravity affects the resonant frequency of all isotopes. And while the elevated atomic clock counts faster, the claim is that moving atomic clocks count slower.[5] The IAU modified the definition of the SI second, effective 1977, such that it is the atomic second at mean sea level.[6] Thus, an elevated or moving atomic clock, such as in GPS satellites, must be modified to count a different number of oscillations if it is to count in sync with the SI second. Otherwise, the difference would be merely instrument error.

Einstein considered his pondering of a painter falling off a ladder as one of his happiest thoughts. While dwelling on the event, he realized that the painter would have no way of determining if he was moving toward the ground or the ground moving toward him. Similarly, absent the feeling of acceleration, the passenger on the train could have difficulty determining if the train was moving, or the objects outside the train were moving. For example, a ball tossed inside the train car seems to behave the same as it did before the train went into motion. For those teaching special relativity, it is important to stress that the moving observer's observation within the moving craft is the same as prior to going into motion. And it is for everything which contain mass, but it is not for light, hence the magician's deception. While the Office of Science claims light does not contain mass[7], some people determine a photon's mass to be derived from Planck's constant $E=hf$ along with the mass equivalence equation $E=mc2$. A photon is classed as one of the 30 particles on the Standard Model of Elementary Particles. Regardless of whether you think a photon contains mass, it is impossible for Einstein's imaginary "light clock" used in the teaching of special relativity to function on the moving craft. As a result, special and general relativity fail. We'll get into that.

In an example used by Professor Larry Lagerstrom of Stanford University in his online course on special relativity[8], an apparatus in the center of a craft shoots paintballs simultaneously towards the front and rear of the moving craft.

Alice, the moving observer, concludes both paintballs traveled at the same velocity, with respect to her frame of reference, and hit the front and rear of the craft simultaneously. Bob, the stationary observer, concludes the velocity of the paintballs to be different, such that it is the velocity of the craft plus the plus or minus directional velocity of the paintballs. Of course, the reason for this is that the paintballs gained potential energy upon acceleration, which was converted into kinetic energy upon launch.

If the apparatus centered in the craft now launches paintballs vertically, Alice would observe their flight appearing the same as prior to the craft going in motion, while Bob would plot the paintballs on the worldline of the space-time diagram along the hypotenuse of the triangle created by the craft's motion along the X-axis and the paintball's vertical motion along the Y-axis. He would reach the correct conclusion that the paintball's true velocity can be calculated using Pythagorean's theorem. This is referred to as the Galilean transformation.

Lorentz applied this concept to light. He plotted the light pulse going vertical with respect to a moving frame of reference, and following the hypotenuse created by the reference frame's velocity and the speed of light, which he assumed to be constant. Just as the waves of sound and liquid move with constant velocity until conditions change, so also do the electromagnetic waves of light. Since distance = velocity X time, the formula became $c^2t^2 = v^2t^2 + c^2t'^2$ with the conclusion that t was a longer duration of time that t' (t prime). The formula was further reduced to $\gamma = 1/(\sqrt{1-v^2/c^2})$, which is the relationship of the velocity of the moving object to the speed of light. But Lorentz erred in thinking light would behave like the paintball.

If the apparatus centered in the craft now emitted a photon horizontally toward the front and rear of the craft every second, Alice would be forced into realizing she is moving. Unlike the paintballs which had gained the potential energy prior to launch, the photon did not exist prior to emission and thus would travel at a constant velocity. As it moved toward the front of the craft, the craft's motion would move the front away from the point of origin. Therefore, the forward photon would strike after the rearward photon. Unlike Bob's calculations of the horizontal paintballs, his calculations and plot of the photons would be the speed of light from the point of emission. This is similar to the example used in many physics texts, where two bolts of lightning simultaneously strike the front and rear of a moving vehicle and the student is to determine that the observer centered in the craft would, because of his motion, observe the forward lightning strike prior to the rear strike.

If the apparatus now launched the photons vertically, the photon would simply go vertically along the Y-axis while the craft continued to move. The photon did not exist prior to being emitted, and therefore would not have gained the potential energy upon acceleration to give it the forward momentum which the paintball had. Alice would observe the photon travel diagonally toward the

rear of the craft and realize that she was moving. Contrary to how the imaginary "light clock" used in many physics texts and Youtube videos on special relativity is taught, with its photon bouncing between the two horizontal mirrors, upon going into motion the mirrors would move out of the path of the photon causing this "clock" to cease working. If this clock were rotated 90° such that the mirrors are now vertical and parallel to the front and rear of the craft, it would be noticed that once the craft was in motion the photon would take longer to reach the forward mirror. There just is no way to make this imaginary clock work once in motion. To think it can represents a fooled imagination, which is the intent of the magician/ professor/ or person explaining special relativity. The mathematics of special relativity are based upon light having the forward momentum of the moving frame of reference.

Although "there have been hundreds of papers and dozens of books written on the refutation of special relativity over the last 100 years,"[9] I know of none who have identified that the problem with special relativity and the Lorentz transformations is that light would not have the forward momentum that the paintball did in the earlier example.

Let's examine another example which should clarify this error concerning light. We know that our position on Earth's surface is moving at about 900 miles per hour for those at 30° latitude, calculated by multiplying the cosine of the latitude by Earth's circumference at the equator and dividing by 24 hours. We also know that if we toss a ball straight up, it goes straight up and falls straight back down with respect to our position. This was because the ball had the potential energy in it to give it the momentum of our rotational velocity. The moon's average distance from Earth is 238,855 miles. Since light travels at 186,000 miles per second, it would take 1.28 seconds for a pulse of light to go to the moon. If we make an imaginary circle of average lunar orbit based upon $2\pi r$, we have a circle of 1,500,770 miles. Divide that by 86,400, the number of seconds in a day. Our zenith moves along this circle at 17.37 miles per second. Multiply that by the light travel time of 1.28 seconds for 22.2 miles. If, as claimed by Lorentz, Einstein, and those claiming special relativity is true, light carries the forward momentum of motion, it would be necessary to aim the laser for lunar laser ranging at a spot 22.2 miles away from the retroflectors left by the Apollo astronauts. But they don't do that!

3. Refuting false claims

With special relativity comes the twin paradox, the thought that time for the moving observer goes slower. Since both observers from their frame of reference conclude that it is the other observer who is moving, they both reach

the exact same conclusion: the other person has aged less by the same amount. That is not science.

The problems with special relativity, SR, as it relates to science are diverse. As Dr. Louis Essen (1978) stated, "it would retard the rational development of science."[10] He was right. Some scientists have tried to invoke time dilation for answering the criticism of distant starlight disproving a young Earth creation, as recorded in Scripture, when they should shift the focus to the actual solution of the distant starlight problem.

Frequently, lies are supported by additional lies. That is the case with special and general relativity, as many scientists have claimed their experiment or test proves the theory. Arthur Eddington's claim of the 1919 solar eclipse is such an example, which many cite as proof of relativity.

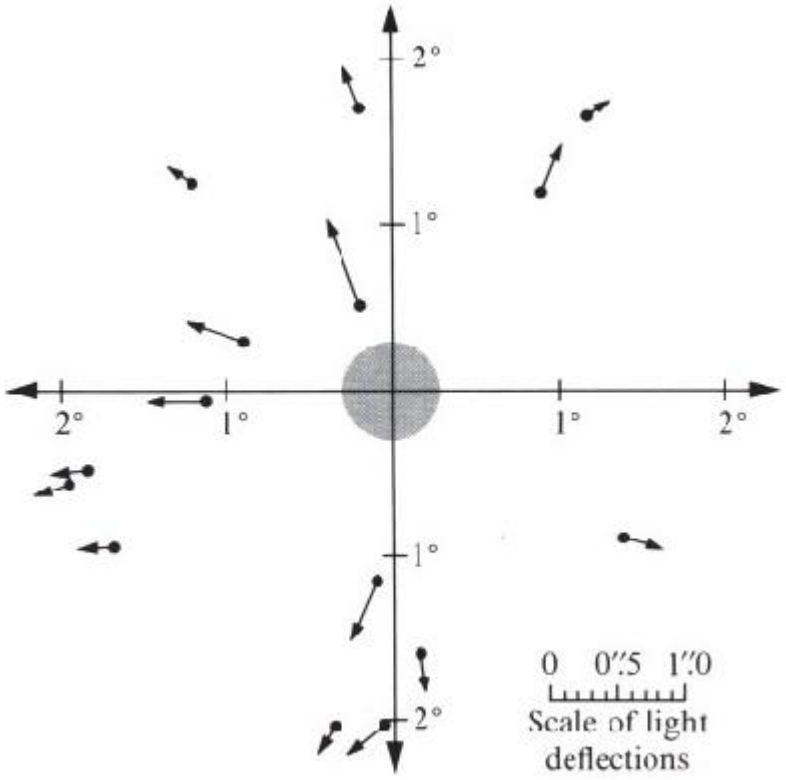

Fig. 1. Eddington's plot of starlight deflections, 1919 eclipse.

Eddington's graph (Fig. 1) [11] plots some stars which were not visible on the photo plates due to the corona, yet he drew them in along with his claim of deviation. His graph also contains two scales (degrees and seconds), such that the deviation represented is smaller than the dot representing the star. "It is

worthwhile mentioning at this point that none of later solar eclipse missions in 1922, 1929, 1936, 1947 and 1952 yielded conclusive results about the amount of light deflection (Newtonian or Einsteinian, cf. [10, p. 68]).”[12] Amateur astronomer Donald Bruns attempted to repeat Eddington’s exercise with the eclipse observation of August 21, 2017, with the claim that his test also confirms general relativity, and some hail this as further proof of general relativity. But Domingos Soares (2019) of the Physics Dept. of Federal University of Minas Gerais, when comparing Eddington’s claim with that of Bruns, wrote “the impossibility of a conclusive result therein will clearly emerge.”[13] It is claimed that the radio telescope confirms the gravitational deviation predicted, however the fact that light is diffracted when passing through mediums of different densities, it is most likely any deviation is just that and not a result of gravitational influence. Gravity is similar to a permanent magnet in that its attraction is steady and on objects with mass, while the electromagnetic waves of radio and light alternate and are not affected by stationary magnets.

Because astronomers calculated that Mercury was off course by forty-three arc seconds per century, they predicted there was another planet causing the gravitational disturbance to Mercury’s orbit. But none was observed at the time, and many scientists have stated that general relativity provides the best explanation and our best description of gravity. Yet they also failed to consider “the Sun will often move outside of its average location by over a full radius. For some reason this never appears to be considered when modelling Mercury’s perihelion motion.”[14] We now know that there are some minor planets which cross Mercury’s orbit and could be partly responsible for the deviation. In fact, the Jet Propulsion Lab Small-Body database lists 362 Mercury “crossers” and 561 Mercury “grazers”[15], with the distinction between the two on how they interact with Mercury’s orbit. At least two of these minor planets which cross Mercury’s orbit, 1998 RO1 and 1999 KW4, have their own moon. Thus, general relativity does not add anything to the science of Mercury’s orbit. It is not enough to, as one astronomer I have corresponded with did, calculate the effect of just one or two of these minor planets with the conclusion that since their gravitational influence is not enough to be responsible for Mercury’s precession, general relativity must still be true. The effects of all 923 minor planets must be considered along with the sun’s movement from its average location.

Although the Hafele-Keating experiment is often cited as proof of special relativity, not only did the inventor of the atomic clock Dr. Louis Essen refute the conclusion of this experiment[16], the revised definition of the SI second, which limits the atomic second to sea level, should cause people to realize that these elevated atomic clocks were not counting what is now SI seconds.

Often, a scientist will claim their discovery, or their theory supports Einstein’s theory of special or general relativity, as if that should grant their claim instant acceptance. Since the examples above show the error of special

relativity, the credibility of those claims made in support of special or general relativity should be called into question. As an example, consider the claim of muons and time dilation. (There are numerous contradictory claims made about muons, but that is not the focus of this paper.) I am not denying the existing of muons, as they are identified as one of the subatomic particles which are 207 times the size of an electron, with an average life of about 1.5 microseconds. The claim is that muons are created by cosmic rays at an elevation of about 4.5 km. The assumption is the muons detected at ground level are the same ones that were created at 4.5 km elevation.[17] Of course, there is zero evidence for that assumption. But that is the basis for the claim that muons prove special relativity. The initial question is: if cosmic rays can make muons at 4.5 km, why can't these rays make muons at ground level? The claim, as it relates to special relativity, is that muons cannot reach Earth's surface before decaying if it were not for time going slower from the ground's perspective of the muon, time dilation, and the distance to the ground getting shorter from the muon's perspective, length contraction.[18]

As for stellar measurements, assumption is the basis for much of the false claims. The claim of stellar magnitude is based upon double the radius of a sphere and you quadruple the surface area. Therefore, if your distance is twice as far from a source of radiation, such as light, then the radiation you receive will be one-fourth as much. This assumes that nothing interferes with the light: no space dust, no small meteors, and no water vapor in space, while the biggest lack of consideration is the effect of electromagnetic interference. As the electromagnetic waves of starlight travel toward Earth they are opposed/interfered with by the electromagnetic waves from our sun traveling toward the star. Astronomer Alan Hirshfield yielded a proper conclusion when he wrote: "a star's brilliance reveals nothing about its remoteness."[19] Take away stellar magnitude from stellar measurements and you are mostly left with parallax, which is no threat to Biblical Creation. (except for the false claims being made today concerning parallax.) Just as sunlight interferes with the electromagnetic radio waves such that radio stations require more power in the daytime to reach their audience, the light of our sun interferes with the electromagnetic waves of light coming from other stars.

Electromagnetic wave interference makes electromagnetic "noise" and that noise from starlight spans across the entire spectrum of frequencies. That was what Nobel Prize winners Penzias, Wilson, and Smoot were detecting. It was not a result of their claims concerning the Big Bang.

By the number of stars assumed to be in a galaxy, an astronomer might assume the quantity of light it should emit and therewith estimate its distance. But a study into antique astronomy texts reveals the claim of the number of stars in a galaxy is not based upon observational science. In 1935, the 100" Hooker telescope on Mt. Wilson, which was the largest telescope in the world at the

time, was estimated to allow observation of about 500 million stars over the course of a year, while at the same time the claim was being made there were approximately 100 billion stars in the Milky Way.[20] That meant that the other 99.5 billion stars being claimed were outside of the field of observable science and in the world of imagination and make believe. That did not mean that there are 500 million stars, but if there were, then the 100-inch telescope should allow observation of them (Baker's estimation for the 100" Hooker may be inflated as his estimation for the 40-inch Yerkes was 50% higher than in other astronomy texts). People err in thinking the Hubble, with its mirror less than 0.22 the size of the 200" telescope on Mt. Palomar which was estimated to allow observation of about one billion stars, offers a greater view of the universe. The new, but no longer functional, Webb satellite telescope is dwarfed by the Gran Telescopio Canarias.

4. Conclusion

There are numerous other reasons not to believe many of the claims made in astronomy. But if we follow God's advice: "Prove all things, hold fast that which is good," then we can avoid much of the deception which is put forth in the name of science, such as special relativity.

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