The Great Mistake: Relativity

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ABSTRACT

As we all know, Einstein's relativity was based on his two postulates. These two postulates are:

1). The Principle of Relativity: The Laws of Physics must be the same in all inertial frames.

2). The constancy of the speed of light: The speed of light in vacuum has the same value, c, in all inertial frames, regardless of the velocity of the observer or the velocity of the source emitting the light.

The first postulate is common-sense, we do not need to discuss it. I will only address his second postulate, because it is the foundation of Einstein's entire theory of relativity. From his second postulate he got "time dilation", "length contraction" and "special and general relativity". In all serious physics textbooks around the world, the disclaimer attached to Einstein's Relativity is analogous to "*Both postulates have been exhaustively tested, and no exceptions have ever been found.*"**

Here in this article I will use my thought experiments to demonstrate that Einstein's Relativity is incorrect.

I. HISTORICAL NOTES ON RELATIVITY AND THE SPEED OF LIGHT

Early scientists attempting to determine how light propagates and whether or not it requires a medium (which they referred to as "ether") determined that there was no "ether wind" resulting from Earth's movement through space. Therefore they concluded that light does not require a medium. Later, they concluded that light is a propagation of electric and magnetic waves with some particular level of energy per discrete "pulse" of waves, so to speak ("quanta", or "photons"). They also decided that its speed was constant regardless of means of observation through their experiments. We will look over the implications of these experiments in a later paper.

The history of relativity itself of course began with Einstein's publications in 1905. However, until 1919 general relativity remained something of a curiosity among physical theories. A 1919 expedition led by Sir Arthur Eddington confirmed general relativity's prediction for the deflection of starlight by the Sun during the total solar eclipse of May 29, 1919, from Principe Island, making Einstein instantly famous and his theory broadly accepted as truth.

Does this expedition really confirm or prove Relativity? It finds relativity to not be wrong, which is very different from finding it right. The expedition only proves one concept, which is that light could be bent by a mass such as the Sun. This is something predicted even under Newtonian mechanics (to a different magnitude), but it is not a direct proof of relativity. Though experiments have observed results consistent with his predictions, this only tells us that he has not been found to be decisively wrong. Not being found to be wrong does not equal being right, it only means that at that particular time and technology level, it was not clearly wrong.

The one fact of the Theory of Relativity that has held, unchanged, for the past 110 years:
It has never been proved to be wrong yet!

Based on the experiments you will soon read and the facts above, I declare that I am the first person I know of to have used the principles of math and physics to fully prove Einstein's relativity to be wrong.

I expect it to take a long time for Relativity to leave physics textbooks, just like Geocentrism did. However, in the present Information Age, I believe that change will be faster than has been the trend historically. I hope I can help physics and science enter a new era that may be called the Faster-Than-Light Age or something similar.

II. INTRODUCTION

Any event occurring or not does not depend on if human observing it, much as covering your eyes or even all senses does not make the world disappear or stop, whoever or whatever you may be. Earth existed long before humans were there to observe it, and the universe existed long before Earth. This contrast between perceptions versus realities is the beginning of the fall of relativity.

From the day that Einstein's "Relativity" was published he is said to have claimed that it was alright for only a few people to really understand it. In other words, he claimed only the smartest scientists would be able to understand, because he was sure of two things:

1): It was hard to achieve or surpass the speed of light, because he did not know of, and we still do not have, a pushing or pulling force to date that can act faster than light, which means the force can never push an object to be faster than it *in the direction of the force's action*. I will demonstrate in another paper how existing hardware could surpass the speed of light easily enough.

2): It was hard to prove his Relativity to be incorrect or at least inaccurate based on factor one.

If Einstein sounds like the story of "The Emperor's New Clothes" to you, then you have realized the obvious. A great many professors and students have thought that there might be

something wrong in ‘Einstein’s Relativity’. However like most people in the "The Emperor's New Clothes", nobody wanted to be laughed at, and so they stayed silent, followed the herd, and taught students from generation to generation for more than a hundred years.

Here I will use my thought experiments to prove that the ‘Theory of Relativity’ has glaring logical holes. Just as Einstein used thought experiments to form his incorrect equations, I will use them to tear them down. A new view is used to prove the original thought experiments that were used in all textbooks to be wrong. Basic logic dictates that if a theory relies on an experiment, when the experiment becomes wrong, the result must be wrong. So when these experiments have proved “Einstein’s Relativity” to be unreasonable, “Relativity” must be wrong.

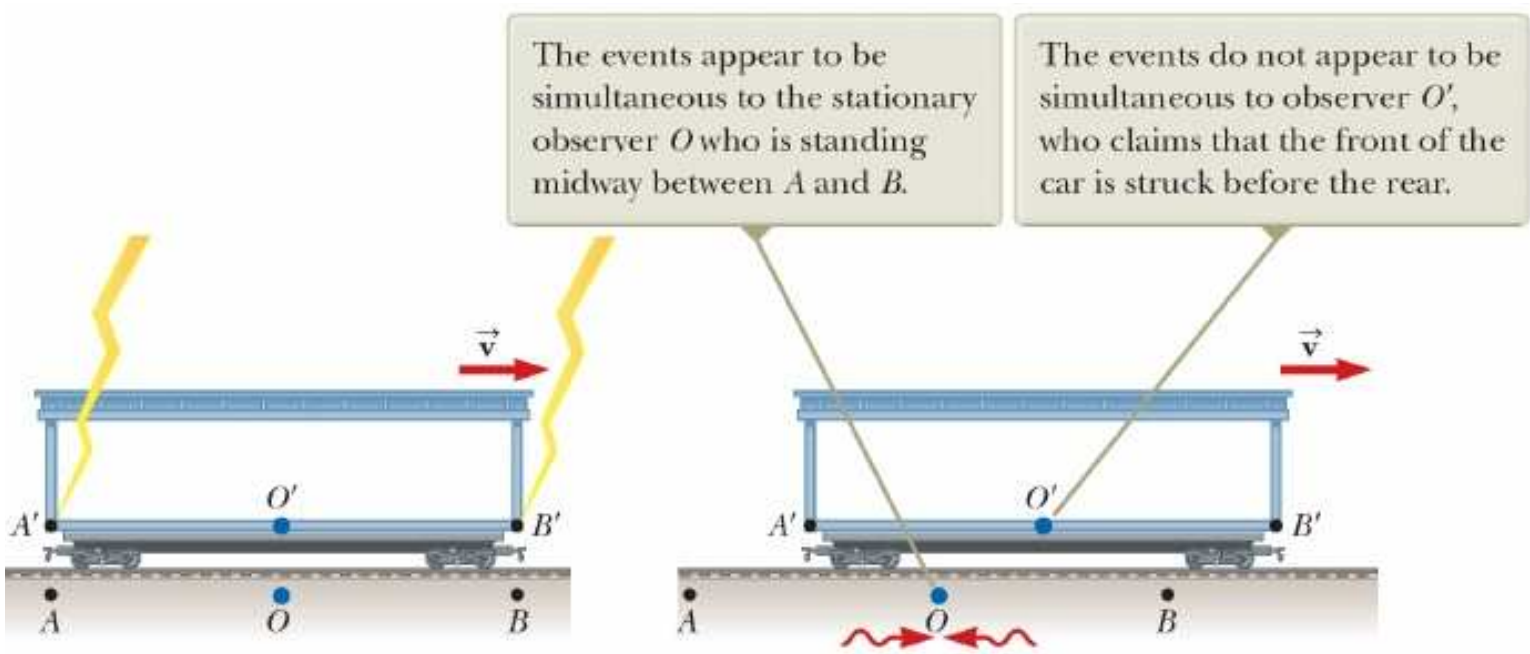
Before I start my proofs I have to make some claims, similar to how Einstein made claims: First, please do not blame any book that I use as example, because the knowledge is grandfathered into the present knowledge base. Second, all professionals will understand my experiments.

I will begin with the most common example, used in all books.

III. DECONSTRUCTING SIMULTANEITY

First let us start from the very basic concept of ‘Einstein’s Simultaneity and the Relativity of Time’ by starting from a figure which, in some form, is found in every textbook:

Figure 1*

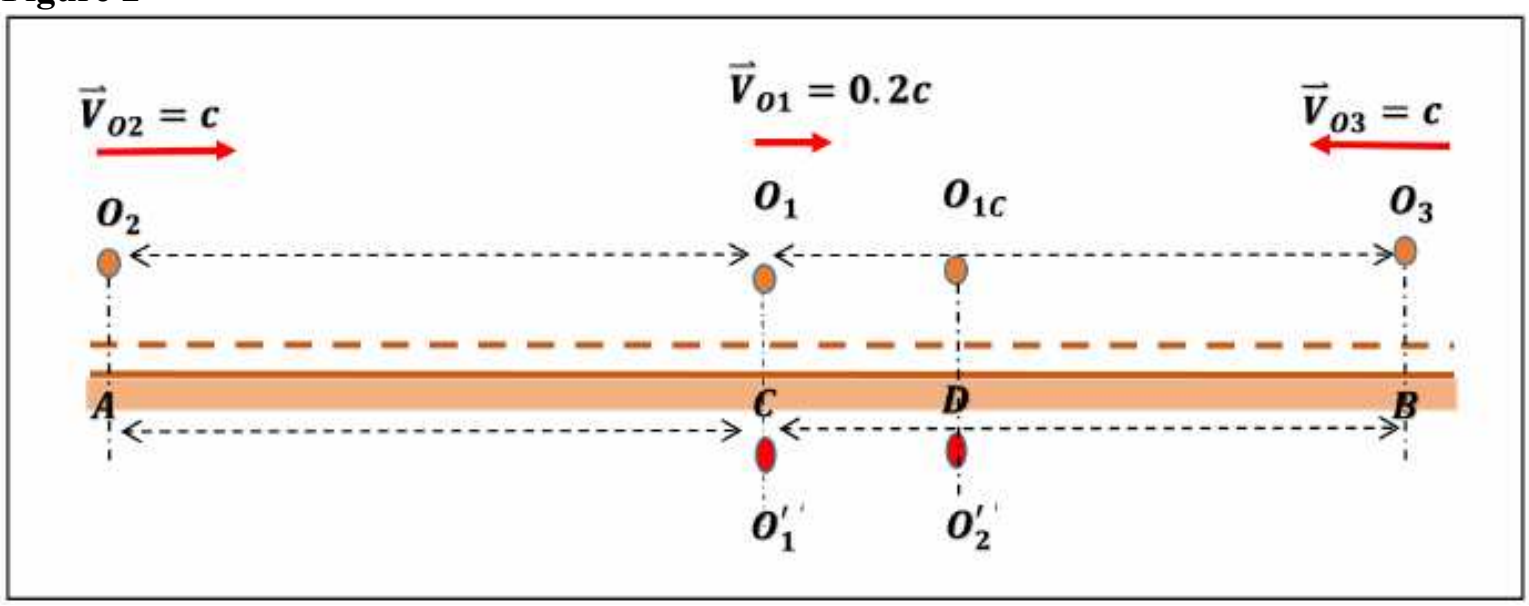


(Modified From: Serway & Jewett. Physics for Scientists and Engineers with Modern Physics 9th edition)

In Figure 1 above Einstein’s explanation is self-defeating about a basic aspect of his theory, the concept of ‘Simultaneity and the Relativity of Time’. I will not use massive amounts of equations to bamboozle people. Instead I will show that the logic above is just middle school thinking and demonstrate why his own second postulate declares it impossible (and defeats itself in the process).

Consider this simple math problem from middle school:

Figure 2



The distance between A and B is 20c $\times$ t. C is the middle point between AB.

O_1: Is in location C. It will move at velocity $\vec{V}_{O1}$= 0.2c to the right.

O_2: Is in location A. It will move at velocity $\vec{V}_{O2}$= c to the right.

O_3 : Is in location D. It will move at velocity $\vec{V}_{O3}$= c to the left.

O'_1 and O'_2 are two stationary observers at point C and D respectively. D is 2.5c to the right of C.

O_1, O_2, and O_3 start moving at the same time (as this is done at middle school level, this means the same time in the stationary frame, though we do not specify). Let $c = 1km/\mathrm{h}our$, $t = 1\mathrm{h}our$, then $AB = 20km$ and $DC = 2.5km$.

We can very easily get the conclusions of:

1) O_1 and O'_2 will meet O_2 at position D at the same time, also known as **simultaneously**.
2) O'_1 will see O_2 and O_3 at the same time, **simultaneously**.

This leads us very quickly to:

3) **Without considering location, any kind of talk about simultaneity is meaningless.**
4) **Einstein's simultaneity in Figure #1 is meaningless.**

I can easily extend the (Figure #2) question to university level, by just changing it to c = light speed and t = second (or t = year). Let us use light years. Suppose a spaceship O_1, traveling at 0.2c from star A toward star B. when O_1 is at the middle point C between two, these two stars gave a brighter than normal pulse of light at the same time.

According to my calculation of question of Figure #2. We knew the light pulse O_2 from star A will strike O_1 at point D which is 2.5 light years from point C. and the pulse O_3 from star B will reach O_1 somewhere between C and D.

There are then some very obvious observations:

1) Stationary observer O_2' in the position D will first observe the pulse O_3, then see light pulse O_2 5 years later.
2) Stationary observer O_1' in the position C will observe the pulse O_3 2.5 years later than observer O_2'.
3) Stationary observer O_1' in the position C will observe see the pulse O_3 and the pulse O_2 at the same time, or simultaneously.
4) Moving observer O_1 and stationary observer O_2' will observe the pulse O_2 in position D at the same time, or simultaneously.

5) After they observed the lights O_2 from start A, and O_3 from start B. The scientists from O_1, O_1', and O_2', will calculate and get the same answer that is **these light pulses from A and B happened at the same time**, **simultaneously**. They just need to use the general physics of motion, or even *middle school math* to arrive at this incredibly obvious conclusion. This conclusion will be reached unless there are no scientists there, or if Einstein was there.

The conclusion: Any kind of observers will observe the same events simultaneously if and only if they are in the same location.

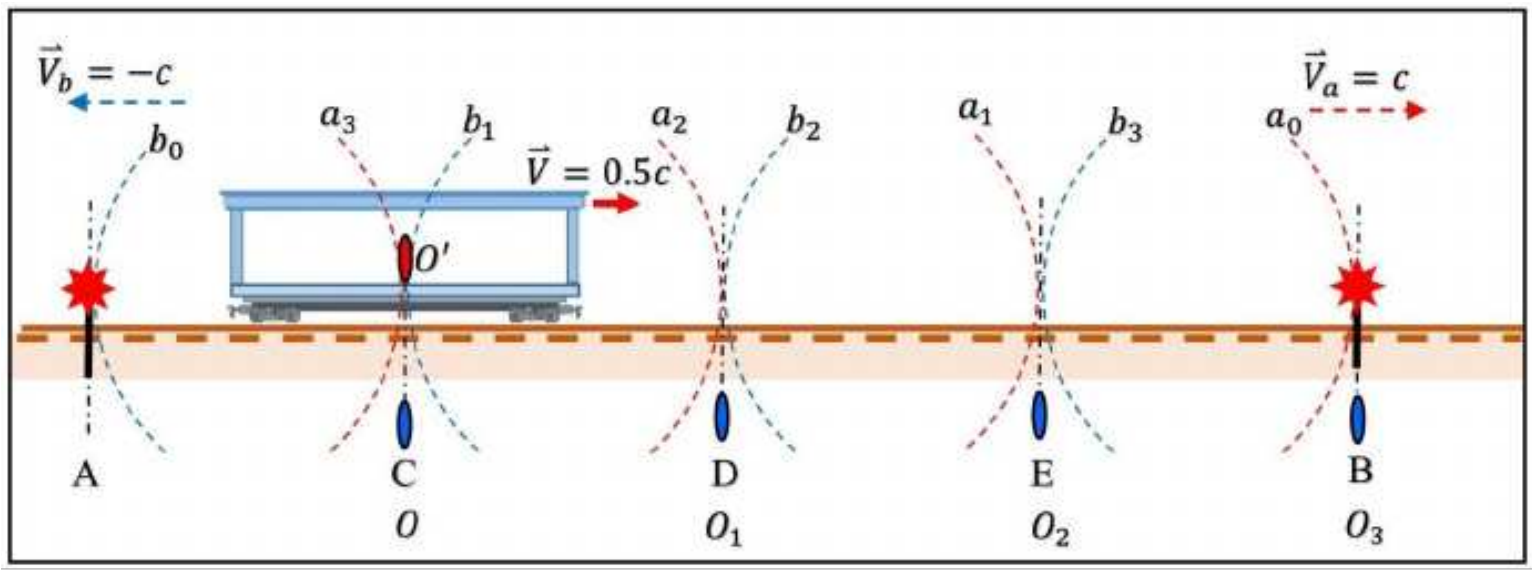
Without considering the location at the time a signal is received, to discuss simultaneity is useless. Therefore Einstein's simultaneity was meaningless and absolutely wrong.

Obviously this is the same as the story claimed in Figure #1. Just change O_2's and O_3's speed to c as in the speed of light, and change O_1's speed to 0.2c. O_1 will encounter the light from B before the light from A, and so he claims the events were not simultaneous. *This result of non-simultaneity requires the violation of Einstein's postulate that the speed of light is constant relative to all inertial frames of reference.* O_1 is an inertial frame of reference, since the "start moving" can be perceived as merely unpausing the progress of the event through time. Please remember any discussion of simultaneity without consideration of positions and displacements is completely pointless.

More importantly, we must note how time works between frames: There is one moment where O_1 and O_1' match in location (or cease to match if we consider it as starting movement instead of unpausing). Regardless of any arguments by Einstein, that one moment must exist in

both frames, and it **must be the same moment**. In Figure 3 below, I will further explain why discussing simultaneity without taking into account positioning and signal traveling delay is meaningless, as well as demonstrating time dilation to be self-defeating.

Figure 3



As show in Figure 3 above, the vehicle is moving to the right with a constant speed $\vec{V} = 0.5c$. The flash pulses from two generators A and B are simultaneous in their stationary frame with pulse interval *T*. Light pulse generators A generates the pulses marked a_0, a_1 , a_2 … Light pulse generators B generates light pulses with signal marker b_0, b_1 , b_2 … Observer O' is inside the moving vehicle with a speed of 0.5c to the right. Beside the vehicle's path there are observers O, O_1, O_2, and O_3 at point C, D, E and F respectively. The distance between these points is:

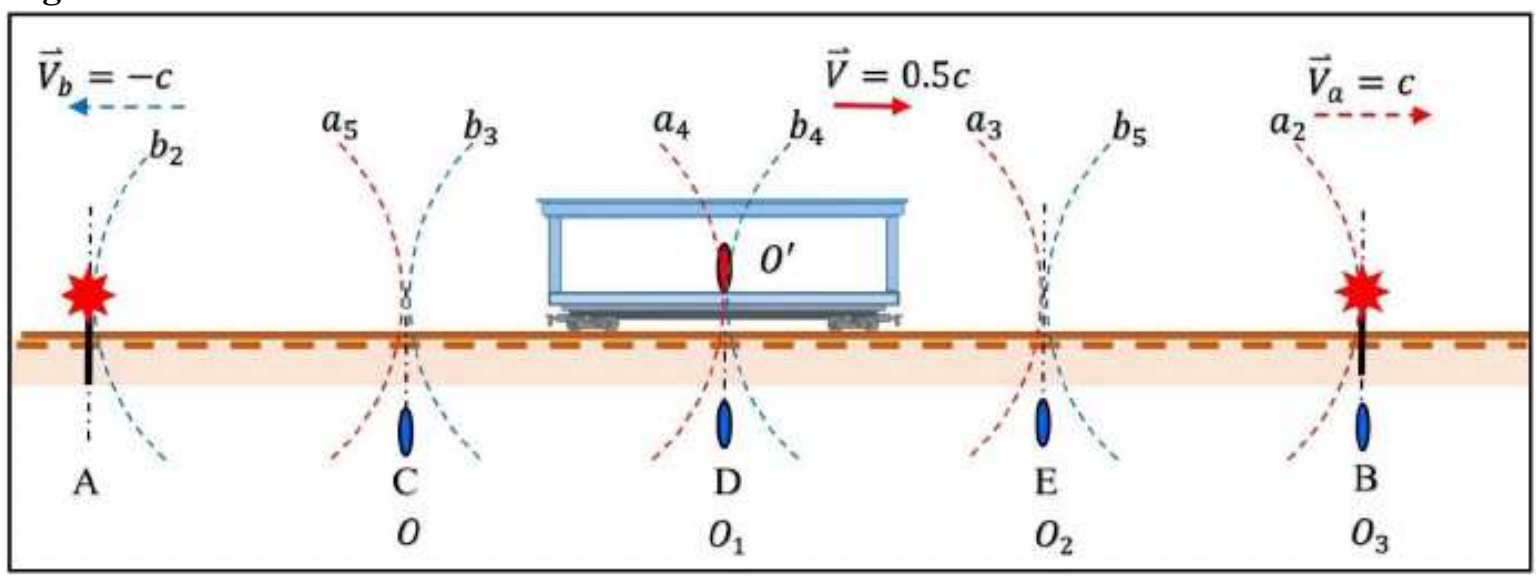
$$\overline{AC} = \overline{CD} = \overline{DE} = \overline{EB} = c\,T \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (1A)$$

Where T is the time interval between pulses.

As per the diagram, the sequence of events will be such that at point C both observer O' and observer O will observe light pulses a_3 and b_1.

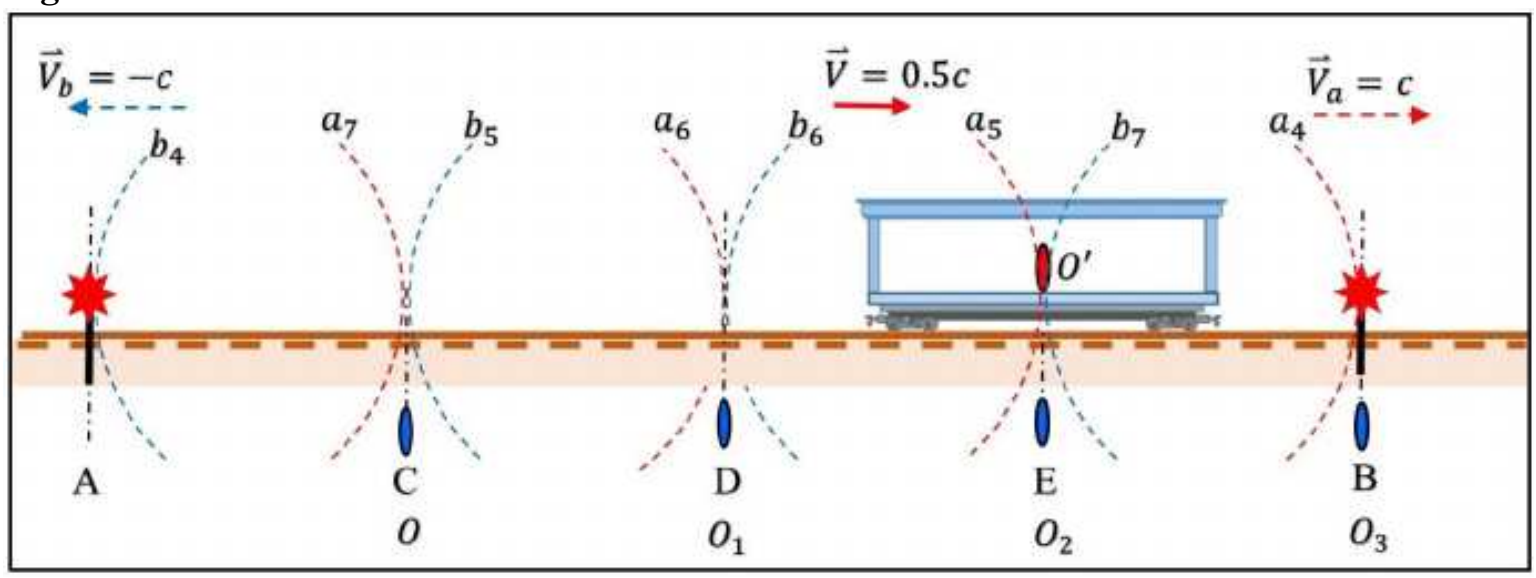
After time 2T in the external frame, at point D both O' and O_1 will observe a_4 and b_4 as per Figure 4.

Figure 4



After time 4T (from the start of the experiment) at point E both O' and O_2 will observe a_5 and b_7.

Figure 5



We know that for all stationary observers O, O_1, O_2, and O_3 the light speed is the same c. The pulses they observed reaching their position are reasonable due to the distance.

Let us use Einstein's approach first. According to Einstein's postulate stating the constancy of c in all inertial frames, we would get extremely conflicting results about perception of time from this experiment.

Consider pulse a_4, emitted when *O'* was at C. The distance it must cover to catch up to observer *O'* is *a multiple of* $\overline{AC}$ *(*$\overline{AC} = \overline{CD}$*) even when using Einstein's length contraction.* Remember that Einstein's formulas only care about the relative speed of the two frames, moving toward something and away from it have the same effect in his view!

The result is that the time to catch up as measured by *O'* will be:

$$t_2 = nT \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (2A)$$

Where n is the multiple involved according to Einstein, n is dependent on only the relative speed of the frames of reference. We will not calculate it here as it is irrelevant to this experiment.

The stationary observer at point *D* sees the pulse catch up to the vehicle at time 2T.

So the observer *O'* in the vehicle concludes that the ratio of internal to external time must be nT:2T = n:2

Now consider pulse b_4, which covers a distance $3n\overline{CD}$ as measured from the moving frame at speed c, since according to Einstein only relative speed affects length contraction, moving toward or away from something is irrelevant. It takes time 3nT to reach the moving observer according to the speed of light postulate.

On the stationary frame, the event of the moving observer encountering pulse b_4 occurs at point D, and the time measured for the light to travel from B to D is 2T.

The observer *O'* in the vehicle must then conclude the ratio of internal to external time to be 3nT:2T = 3n:2

Unless n = 0 or T = 0, neither of which is true, we clearly cannot have n:2 = 3n:2. This means two things:

1) Time dilation due to speed of light restrictions is self-contradictory.
2) More importantly, this means the speed of light cannot be restricted to being constant in all inertial frames of reference.

I note that these results have totally refuted the base of 'Einstein's Relativity'. According to Einstein's speed of light postulate *The speed of light in vacuum has the same value c in all inertial frames, regardless of the velocity of the observer or the velocity of the source emitting the light.** And he got the "time dilation" and so on.

IV. COUNTING PULSES AND NEWTONIAN PURSUIT

Let's think about the situation in Section III using more Newtonian physics. Dusting the older form of physics off should require some modernizations, but it at least does not self-destruct, as we shall see if we count the pulses passing the vehicles in Newtonian fashion:

Let:

$d_{b_1-b_4}$ = The distance between Light pulse b_1 and b_4 ..... (3A)

$d_{b_4-b_7}$ = The distance between Light pulse b_4 and b_7 ..... (4A)

$d_{a_3-a_4}$ = The distance between Light pulse a_3 and a_4 ..... (5A)

$d_{a_4-a_5}$ = The distance between Light pulse a_4 and a_5 ..... (6A)

$d_{b_1-b_4} = d_{b_4-b_7} = 3\,\overline{CD}$ ..... (7A)

$d_{a_3-a_4} = d_{a_4-a_5} = \overline{\overline{CD}}$ ..... (8A)

$d_{O'\,moved}$ = Displacement of *O'* measured by *O'* in his frame ..... (9A)

d_O = Displacement of *O'* as measured by *O, and* O_1, in their frame ..... (10A)

What this says is that observer O' moving from C to D (or D to E, or E to B) means the vehicle moved 3 pulse lengths toward B, and was overtaken by one pulse gap from A, plus one pulse length from pulse A's positional shift relative to the vehicle (a_3 has reached position E by this point, surpassing the vehicle by one pulse length, and a_5 is at C). We know the pulse length is constant according to Mr. Einstein. This means that this is similar to the phrase "two steps forward, one step back", it is equivalent to moving three pulse gaps toward B, and two toward A, which means overall displacement is one pulse gap toward B.

$$d_{O'\,moved} = (d_{b_1-b_4} - d_{a_3-a_4} - d_{a_4-a_5}) \quad \text{..... (11A)}$$

$$= (3\overline{\overline{CD}} - \overline{\overline{CD}} - \overline{\overline{CD}}\,)$$

$$= \overline{\overline{CD}} \quad \text{..... (12A)}$$

That means the measurement from the frame of observer O' and from the frame of observer O is the same. That is:

$$d_{O'\,moved} = \overline{\overline{CD}} = d_O \quad \text{..... (13A)}$$

Note that if the object was not moving, it would be overtaken by an equal numbers of pulses from either side, with no pulse positional shifts to account for, and the displacement would be zero pulse gaps in either direction from both internal and external perspectives.

So the result of (12A) is the observer O' traveled the distance $\overline{\overline{CD}}$ as measured himself, by Einstein's: *The constancy of the speed of light.* This is exactly equal to the distance of $\overline{\overline{CD}}$. Which is exactly equal to the distance measured between the stationary observers. So there is no length contraction and no relativity even when we try to apply the constancy of the speed of light. This again shows this second postulate to be self-defeating.

Also according to the observer O' in the vehicle, passing through from 'C' and 'D' he must observe one gap of light pulse a_3 to a_4, that is one time of *T*. But during the period the observer O' must observe three gaps of light pulse from b_1 to b_2, b_2 to b_3 and b_3 to b_4. As the result observer O' will find the result of the relationship of the light pulse from source A and source B to be:

Let:

$\vec{V}_{BO'}$ = Speed of Light from B toward O' ..... (14A)

$\vec{V}_{AO'}$ = Speed of Light from A toward O' ..... (15A)

$\vec{V}_{O'}$ = The speed of O' find from his frame reference to O ..... (16A)

We got:

$\vec{V}_{BO'} = 3\vec{V}_{AO'}$ ..... (17A)

This also equal to the relative speed of light observed by observer O' is:

$\vec{V}_{BO'} = 1.5c$ ..... (18A)

$\vec{V}_{AO'} = 0.5c$ ..... (19A)

Because the light pulses from front pass three times faster than the pulses from the back, using time dilation would be self-contradicting as previously discussed. So the light speed must be different in the same frame of the observer O'. And also the speed of the light pulses must be different between the frames of reference of the observer O and the observer O'. According to Einstein's postulates, *the two observers must find that light travels at the same speed** or at least observer O' must find that light travels at the same speed in his frame. We see this cannot hold

The pulse interval observed by these stationary observers O', O_1, O_2, and O_3 is T.

$$T = \frac{\vec{\overline{CD}}}{c} = \frac{\vec{\overline{DE}}}{c} \quad \text{..... (20A)}$$

And also because from the stationary frame the vehicle, measured by observers O, O_1, O_2, and O_3 has the speed of:

$\vec{V} = 0.5c$ ..... (21A)

So: From the frame of O, O_1 the time (t_O) the vehicle takes to pass through the distance of $\vec{\overline{CD}}$ *or* $\vec{\overline{DE}}$ is:

$$t_O = \frac{\vec{\overline{CD}}}{0.5c} = \frac{\vec{\overline{DE}}}{0.5c} = 2T \quad \text{..... (22A)}$$

Observer O' could easy identify his vehicle's speed relative to the ground by the calculation. Because he knew the speed of light from the stationary locations A and B are constant in the stationary frame. Observer O' could use the light pulse he receive to calculate the speed and time he took traveling from C to D in the moving frame by the calculation below.

Because the light pulses that Observer O' received from B occur three time faster than from A, we have:

$$\frac{\vec{V}_{O'}+c}{\vec{V}_{O'}-c} = -3 \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (23A)$$

$$\vec{V}_{O'} + c = -3\,(\vec{V}_{O'} - c)$$

$$\vec{V}_{O'} + c = -3\,\vec{V}_{O'} + 3c$$

$$4\vec{V}_{O'} = 2c$$

$$\vec{V}_{O'} = 0.5c \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (24A)$$

From the result above, the vehicle's travel speed, $\vec{V}_{O'}$, that Observer O' measured from his moving frame relative to the stationary frame of O is equal to the vehicle's speed, $\vec{V}$, measured by the stationary observer O. That is there is no difference in the relative speed measured by the Observer O' and by the that Observer O. So

$$\vec{V}_{O'} = 0.5c = \vec{V} \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (25A)$$

Because the result of (24A), the vehicle's travel speed $\vec{V}_{O'}$ that Observer O' measured from his moving frame relative to the stationary frame of O is equal to 0.5c. We got the time ($t_{O'}$) that measured by the Observer O' in his frame to pass through the distance of $\overline{\vec{C}\vec{D}}$ will be:

$$t_{O'} = \frac{\overline{\vec{C}\vec{D}}}{\vec{V}_{O'}} = \frac{\overline{\vec{C}\vec{D}}}{0.5c} = 2T \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (26A)$$

As the result we got:

$$t_O = t_{O'} = 2T \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (27A)$$

This is a sensible result, unlike what we got earlier when we strictly enforced Einstein's *speed of light postulate* which led to his "time dilation", "length contraction" and "general and special relativity". So from my experiment above, we can only say there is no time dilation, nor length contraction, because the basic postulate behind all those already contradicts itself. Therefore, we can only conclude that relativity is self-defeating and not valid.

V. MUTUAL TIME DILATION IS SELF-CONTRADICTORY

Actually, from the beginning of my experiment we can also get that relativity is wrong by using the same thinking as Einstein used to get his relativity, when thinking about both frames relative to each other.

Figure 6: Why just one vehicle?

In Figure 7 and Figure 8, you are sitting on another vehicle which is just beside the vehicle of O', and going at the same speed of v, in the exact same direction as the vehicle of O'.

You will see O' moving with you. The lights α and γ go up to the top at B and A respectively at the same time Figure 7. And the light α and γ come down at locations C and A at the same time respectively in Figure 8.

Figure 7*

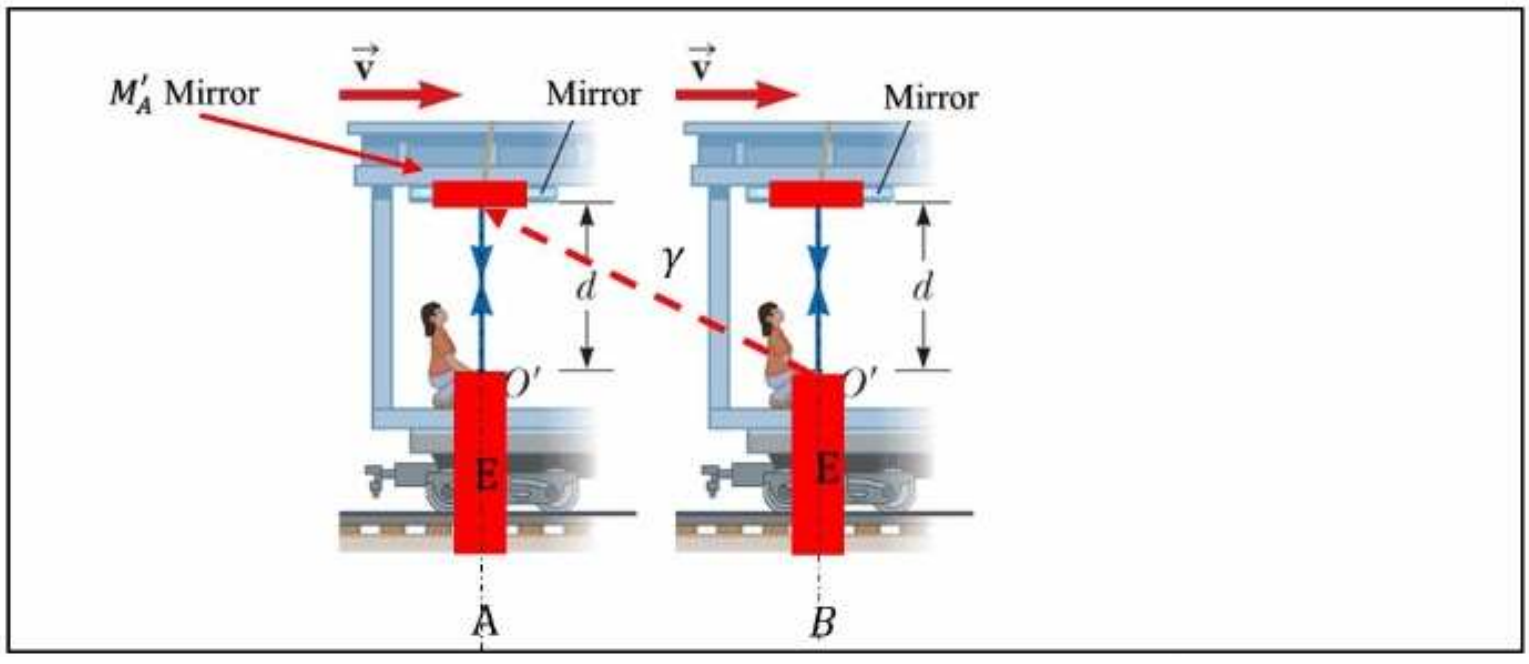
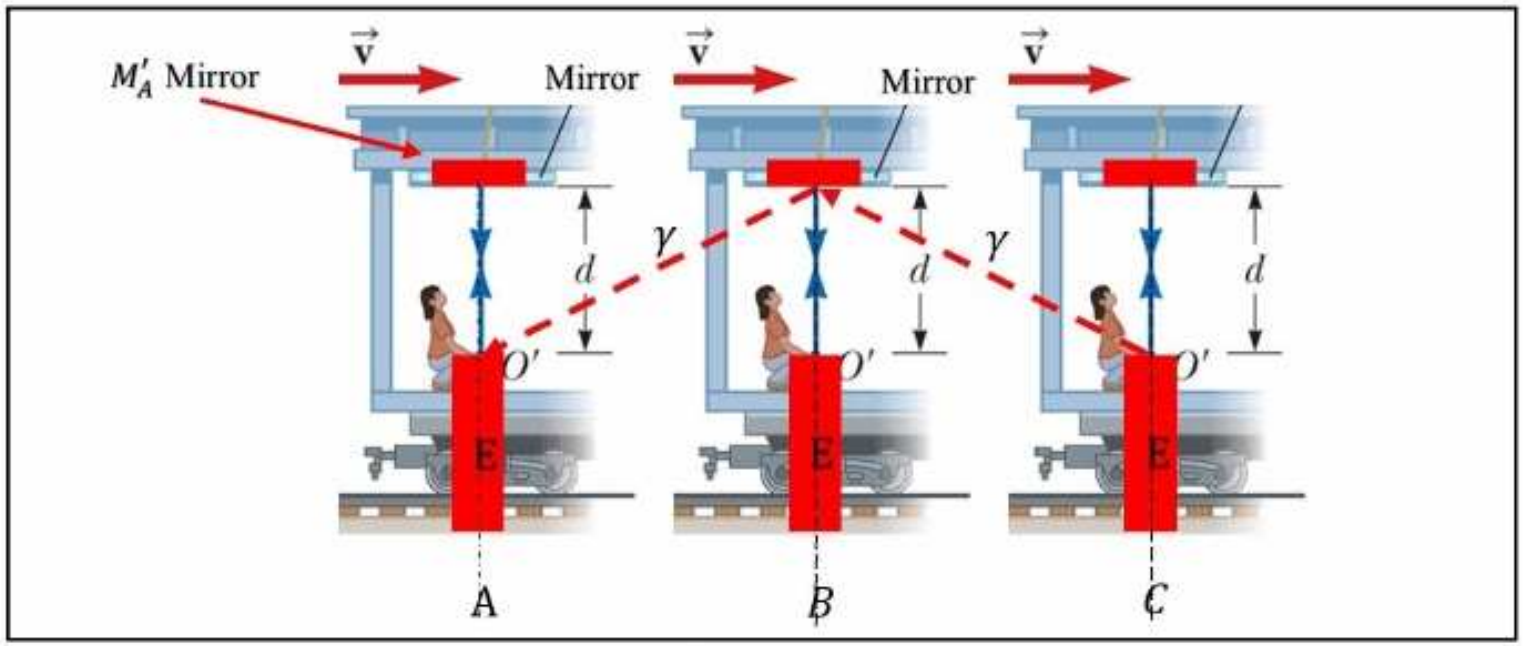


Figure 8*



At the same time as show in Figure 9 below, we add the stationary observer O, both he *and* the moving observer O' will see both lights reach the top at the exact same moment from both frames. Both lights will return to the emission point at the same moment as shown in Figure 10. The path of both light will have the equal distances d. As from Einstein's experiment, the stationary observer O will observe the path of light α inside the train that is the blue in the figures; and the moving observer O' will observe the path of light γ emitted from next to the tracks, which is the red in the figures. As we designed, the red path and the blue path are exactly equal in distance and mirror images of each other. So both observers will observe the same time taken by light for the same distance. There must not be any difference of time between the two observers. **Reciprocity forbids any time "dilation".** (Mathematical proof on next page)

Figure 9*

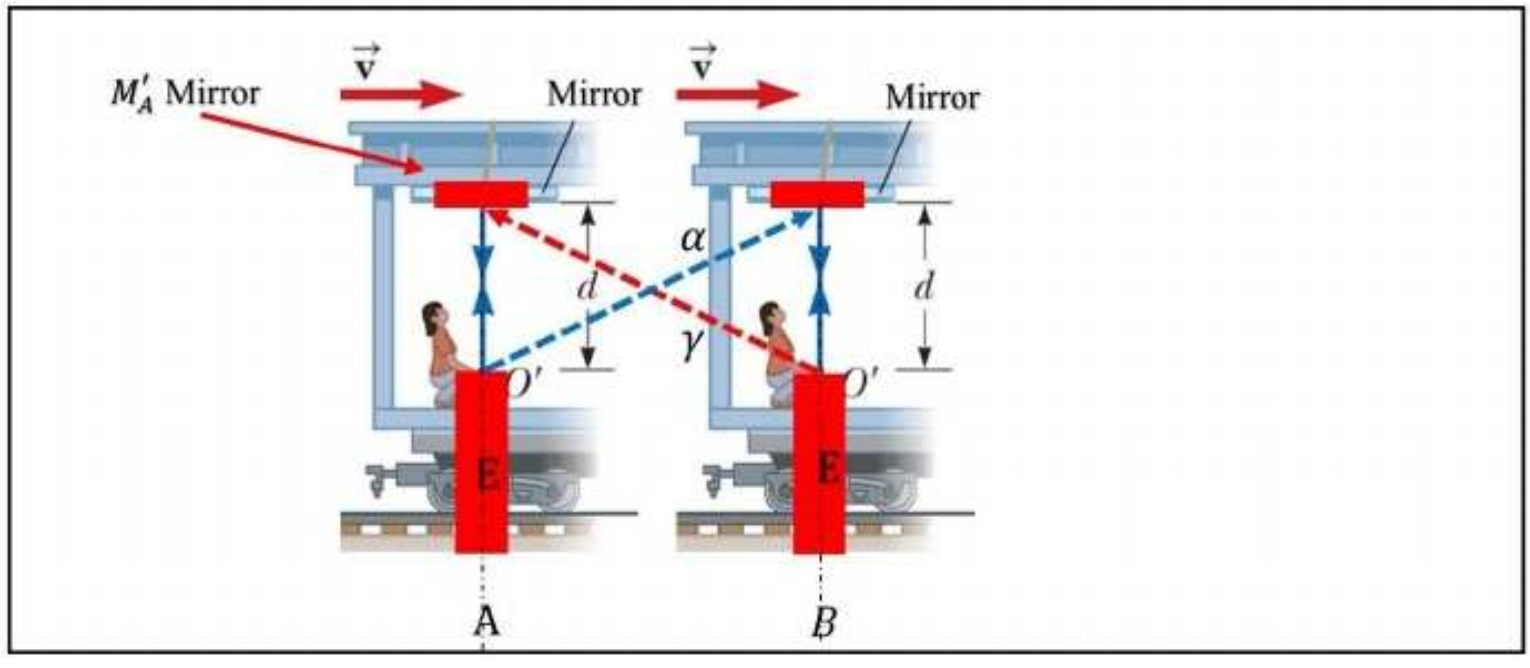
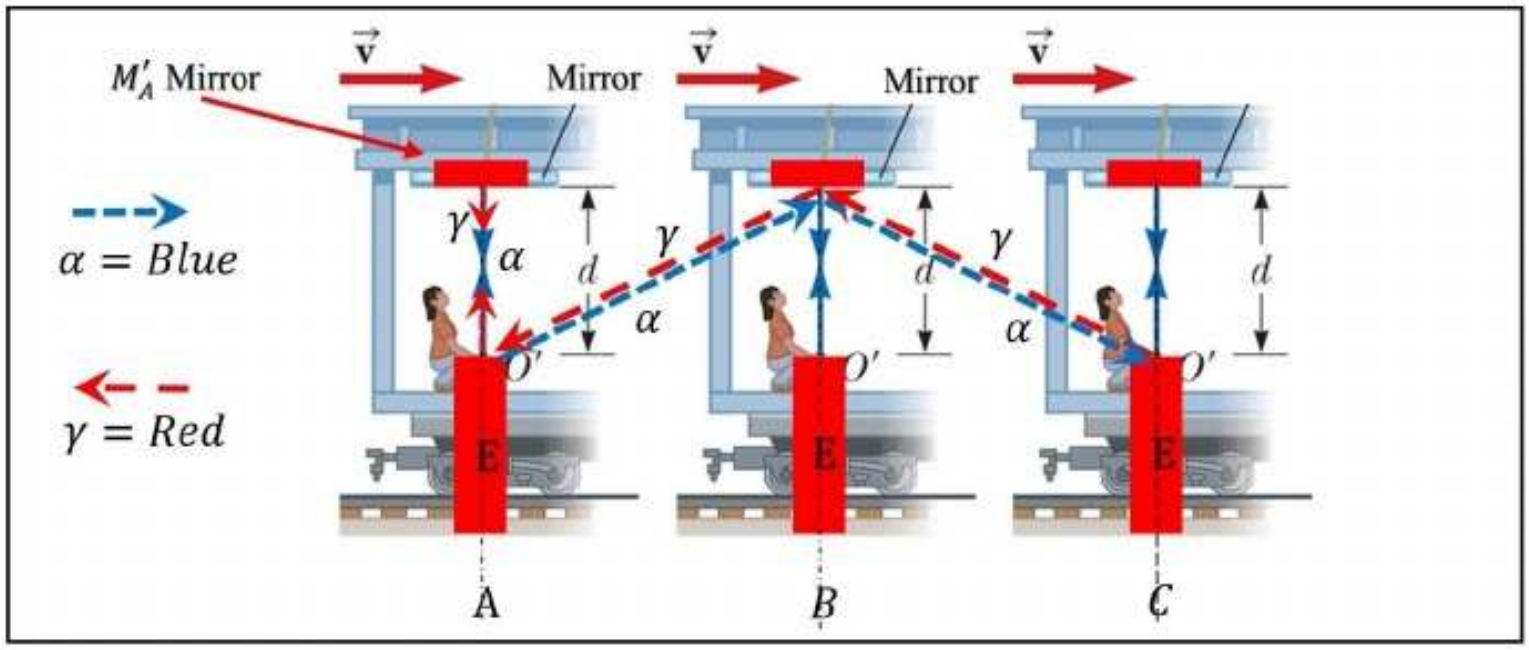


Figure 10*



(Please note: the observed path of the α light (blue) is drawn a little bit lower than the observed path of the γ light (red) for clarity of demonstration. The light paths from the two observers' observations are parallel and congruent to each other.)

If we follow Einstein's thinking, using the same derivation processing from Figure 12 and Figure 13 that Einstein used to get his 'Relativity', we also got that the time the observer O' measures for the light outside is longer than the time the stationary observer O observed.

That is: $\Delta t_p = \dfrac{\Delta t}{\sqrt{1-\frac{v^2}{c^2}}} = \Delta t \cdot \gamma$ here $\gamma = \dfrac{1}{\sqrt{1-\frac{v^2}{c^2}}}$ …… (1B)

But from Figure 13 (Einstein's diagram) the stationary observer O gets

That is: $\Delta t = \dfrac{\Delta t_p}{\sqrt{1-\frac{v^2}{c^2}}} = \Delta t_p \cdot \gamma$ here $\gamma = \dfrac{1}{\sqrt{1-\frac{v^2}{c^2}}}$ …… (2B)

Based on Einstein's relativity, first we substitute 2B to 1B:

$$\Delta t_p = \Delta t \cdot \gamma = \Delta t_p \cdot \gamma^2 \quad \text{……} \quad \text{(3B)}$$

Then we substitute 1B to 2B:

$$\Delta t = \Delta t_p \cdot \gamma = \Delta t \cdot \gamma^2 \quad \text{……} \quad \text{(4B)}$$

To make 1B, 2B, 3B and 4B true, the only solution is: $\Delta t = \Delta t_p$ and there is not such a time-dilation 'γ' in here at any speed. More specifically, the math says the value is 1 or -1, so either time flows the same… or it flows exactly in reverse. To date, we have observed no instances of time flowing in reverse, or at least are not aware of any and have no means to detect any such events.

I have shown that the Principle of Relativity, with is indisputable and certain, dictates that no inertial frame my experience time dilation relative to any other inertial frame based at any mutual speed.

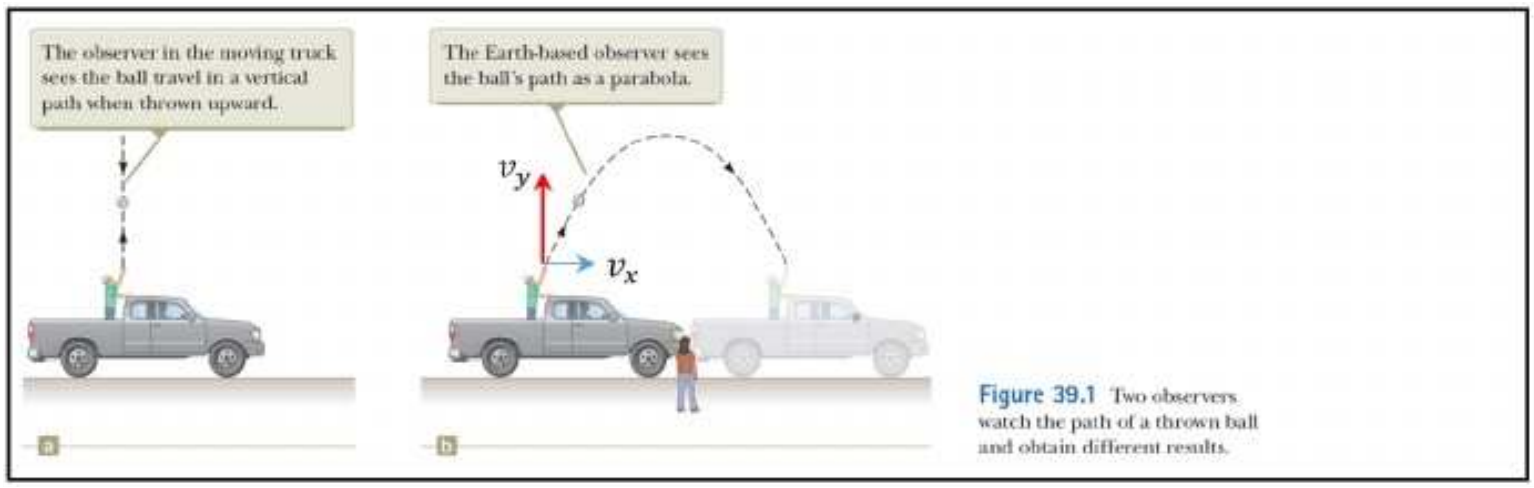
This time, we did not even require demonstrating the Second Postulate to be wrong to show that Relativity must be wrong on a very basic level.

VI. BACK TO REALITY

We have repeatedly demonstrated that Einstein's logic is very much wrong. Now let's consider a situation with no postulates besides the need to acknowledge plainly obvious observations.

In Figure 11, the Earth based observer O knows the ball has a horizontal velocity $\vec{v}_x$. And the $\vec{v}_x$ and $\vec{v}_y$ together gives the path as a parabola. This is very basic physics that even a student in high school will know. Without the v_x the ball could only move up and down without any x-axis motion. Let us see how modern physics explains 'Einstein's Relativity' as below:

Figure 11*



(Modified From: Serway & Jewett. Physics for Scientists and Engineers with Modern Physics 9th edition)

Figure 12*

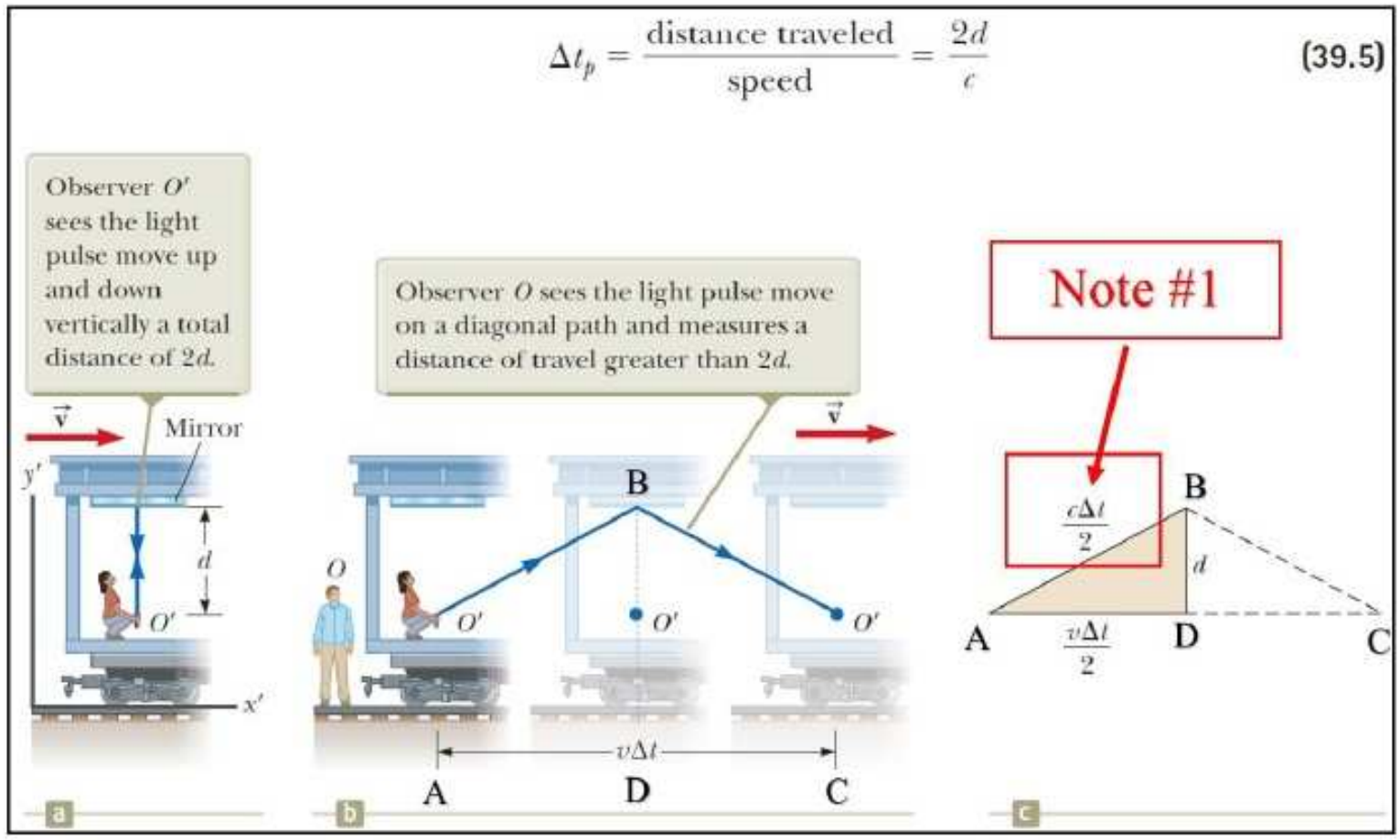
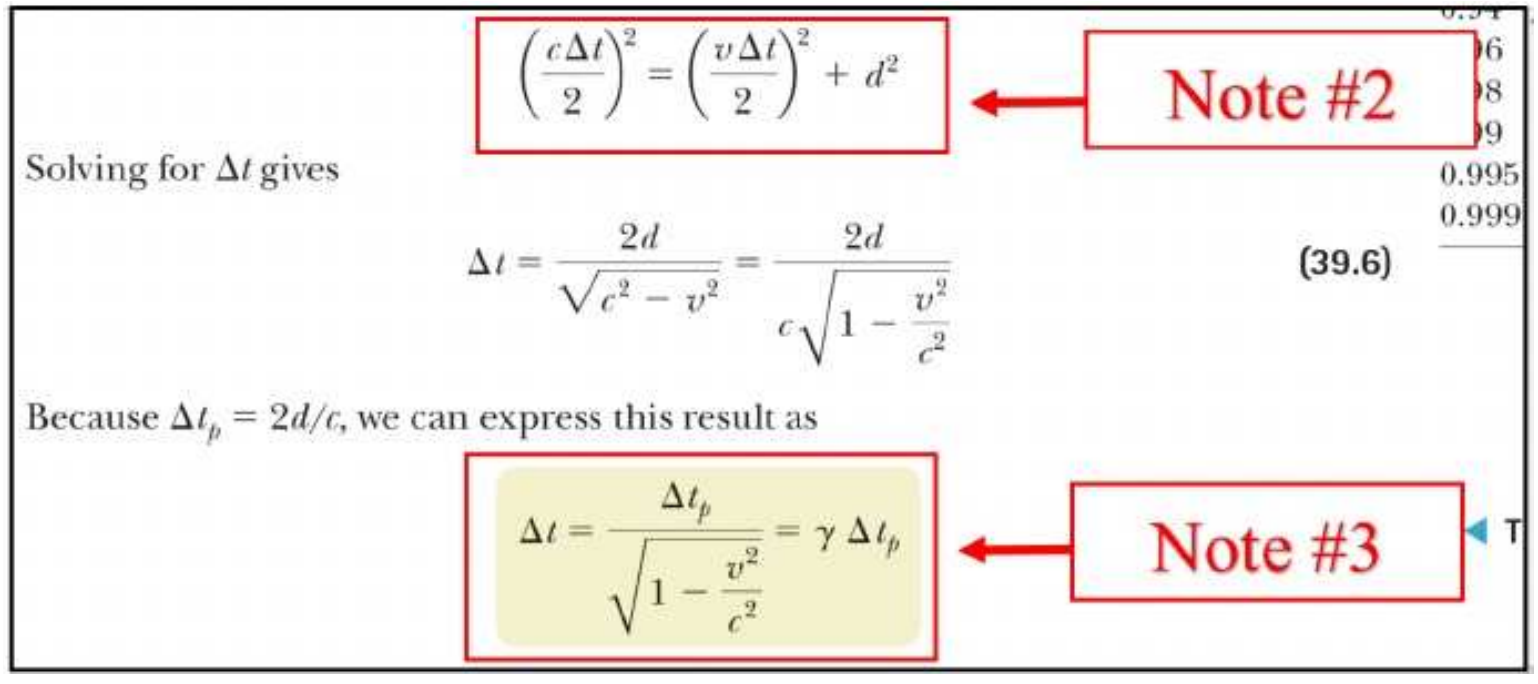


Figure 39.6 (a) A mirror is fixed to a moving vehicle, and a light pulse is sent out by observer O' at rest in the vehicle. (b) Relative to a stationary observer O standing alongside the vehicle, the mirror and O' move with a speed v. (c) The right triangle for calculating the relationship between Δt and Δt_p.

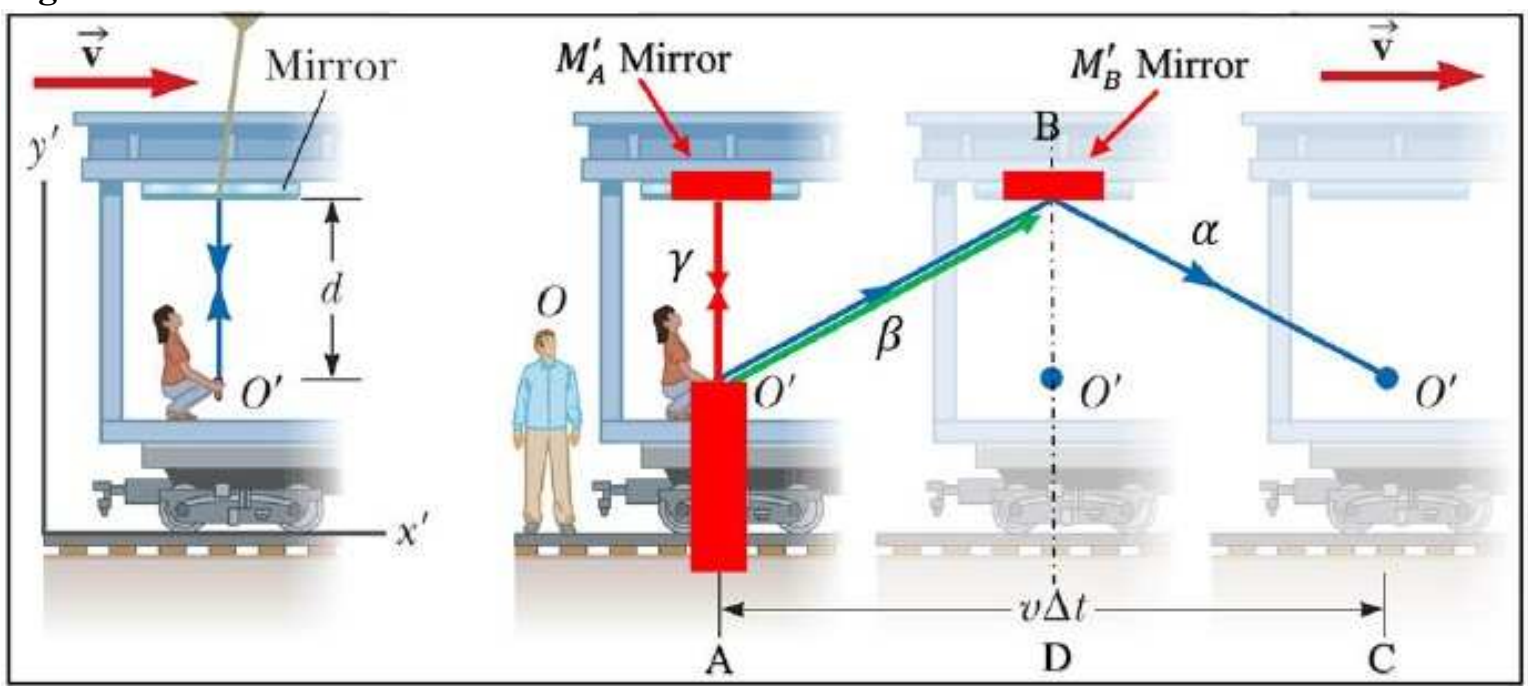
(Modified From: Serway & Jewett. Physics for Scientists and Engineers with Modern Physics 9th edition)

Figure 13*



(Modified From: Serway & Jewett. Physics for Scientists and Engineers with Modern Physics 9th edition)

Figure 14*



(Modified From: Serway & Jewett. Physics for Scientists and Engineers with Modern Physics 9th edition)

From any physics book you will find the same things as I marked as Note #1, Note #2 used to get the result of the Note #3 (the time dilation) in Figure 12 and Figure 13. If any of these come out to be unreasonable, then Einstein's Relativity will be incorrect. Please remember, the processing from the Figure 12 to Figure 13 have been used to show the world that Einstein's Relativity is correct, so if the processing was wrong then 'Einstein's Relativity' will be incorrect. Logically the result from incorrect processing must be incorrect.

Amusingly, we have already long since shown all three to be incorrect, c being constant relative to all frames cannot exist provided all frames are equally valid, which means Notes #1 and #2 have been refuted. Note #3 runs afoul of reciprocity which is a core tenet of the Principle of Relativity.

On Figure 14, I marked points A, B, C and D. I also added "E", "α", "β", "γ ", M'_A, M'_B and some equipment:

"E": is a new device set up at the point A. It is designed to send out two light pulses "β" and "γ". Light pulse "β" will be sent toward M'_B and will along the exact parallel path to the path of light pulse "α". "γ" will be sent straight up towards mirror M'_A. The sequence is designed as: At the moment the observer O' reach the point 'A' the device 'E' will send out two light pulses "β" and "γ" while the observer O' sends out light pulse "α".

"α": is the light pulse sent straight up by observer O' inside the vehicle,

"β": is a light pulse sent from E toward mirror M'_B and will be reflect directly to point C.

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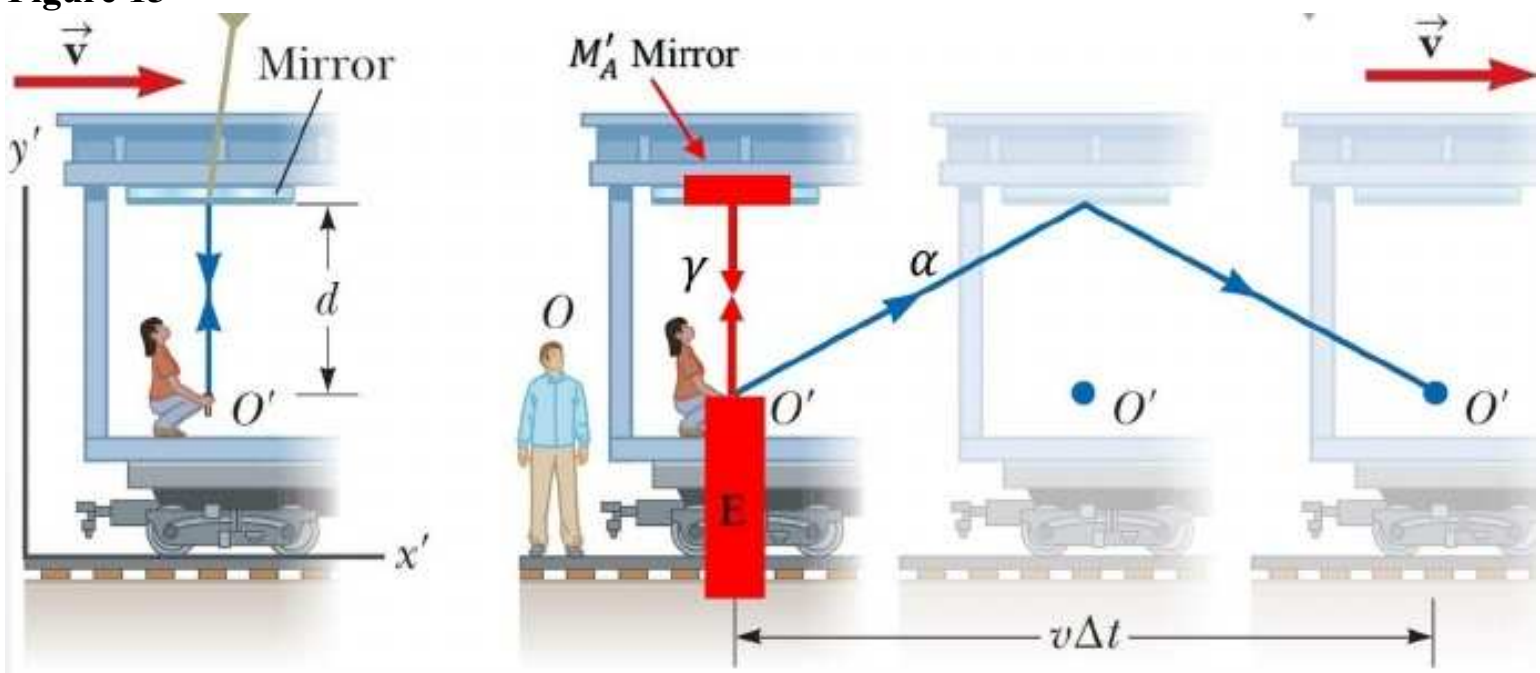
"γ ": is a light pulse sent from E toward mirror M_A' and will be reflect directly back to E.

'M_A' and M_B'' are two mirrors that set exactly at point A and B respectively, beside the railway tracks and parallel to the railway trunks. The height "d" to "E" is exactly the same as the height of the mirror inside the vehicle. M_A' will reflect the light pulse "γ" back to "E" and M_B' will reflect the light pulse "β" to point C.

My experiment starts with the sequence below:

Figure 15*



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In **Figure 14 and 15**, at the time the observer O' at the point A, observer O' send out the Light pulse "α". And at the same time device "E" sends out light pulses "β" and "γ".

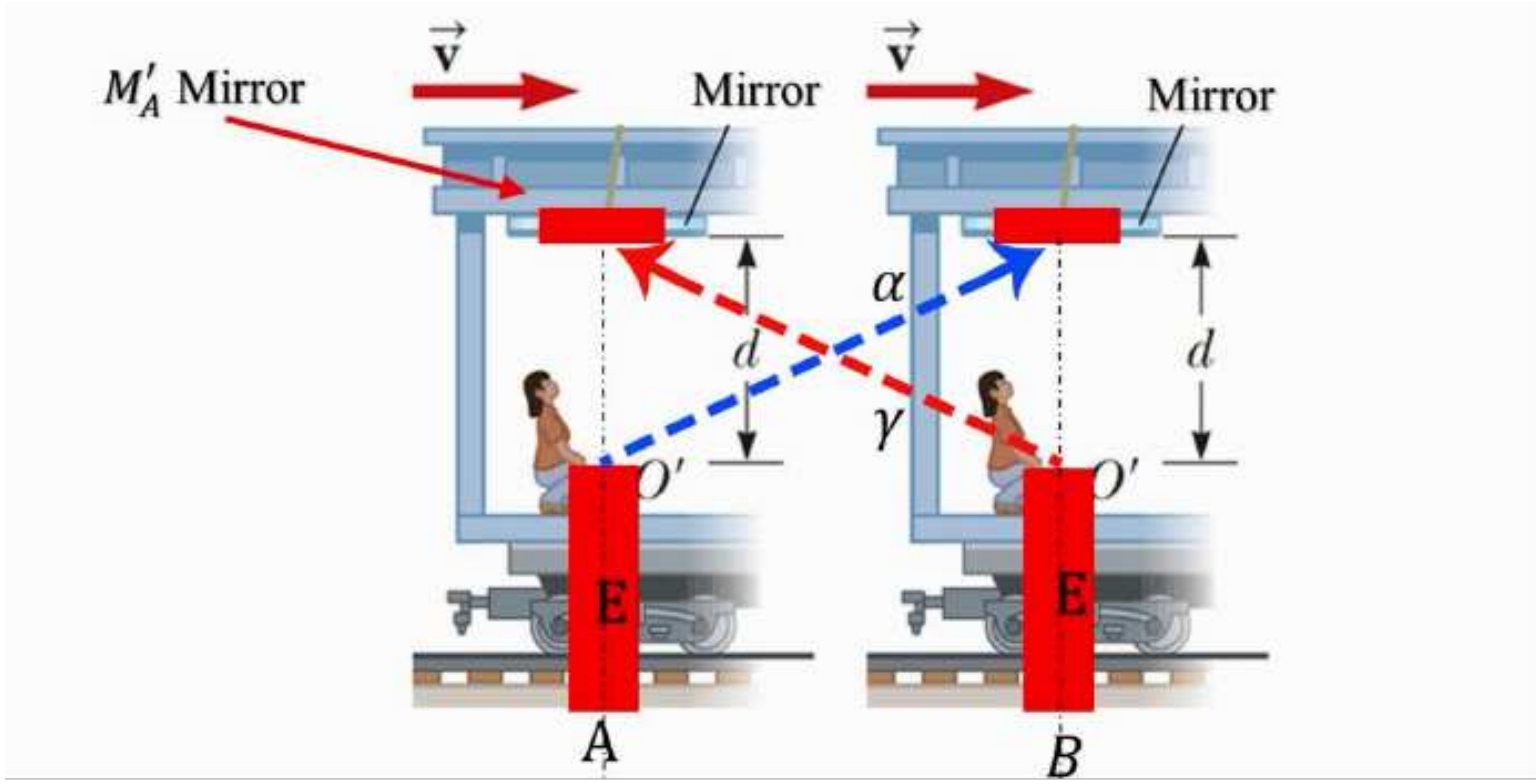
So observer O in his stationary frame observes:

Stage 1 of the experiment: To return to the emitter level, light pulse "γ" will travel through 2d and use the time:

$$\Delta t_\gamma = \frac{2d}{c} \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (1C)$$

The same time applies to Observer O' observing the light in her frame. Due to reciprocity as shown in Figure 16 their time flow rates cannot help but be equivalent to one another (details covered earlier). Therefore, observer O in his stationary frame observes that at the same time both light pulse "α" and "γ" finish their paths of travel. That is the light pulse "α" finished the path A-B-C and light pulse "γ" finish the path up and down use the same time. That is:

Figure 16*



$$\Delta t_p = \Delta t = \frac{2d}{c} \qquad (\Delta t_p\text{: As in Figure 12}) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (2C)$$

From the fact of the (1C) and (2C) we have:

$$\Delta t_\gamma = \Delta t_p = \Delta t = \frac{2d}{c} \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (3C)$$

We state that the stationary Observer O will see the time that the light pulse "γ" traveled is equal to the time that the light pulse "α" traveled inside the moving vehicle.

That is equal to:

$$\Delta t_\alpha = \Delta t_\gamma = \Delta t_p = \frac{2d}{c} = \Delta t \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (4C)$$

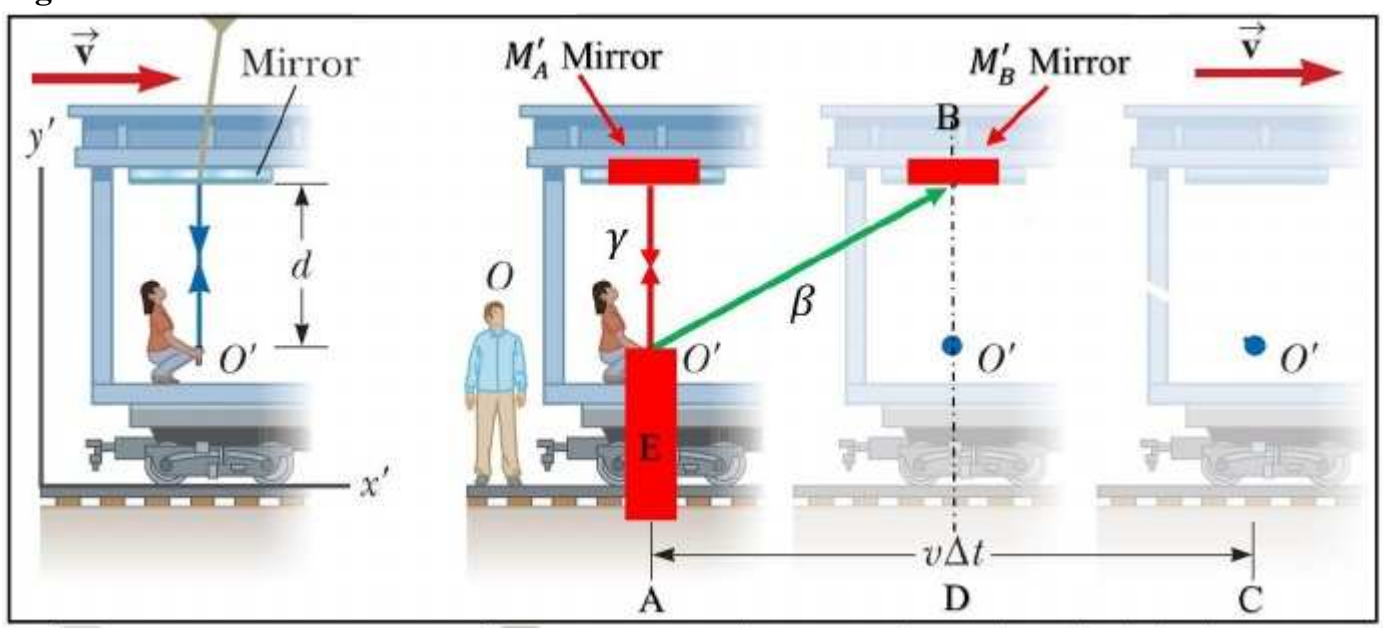
Result of Stage 1: As a result, there is no time difference between observer O and observer O', they all face the same time Δt even they are in the different frames.

Stage 2 of the experiment: At the same frame the Observer O will see the light pulse "β", emitted outside the vehicle, travelling along the path $\overrightarrow{AB}$ and $\overrightarrow{BC}$ (technically it is travelling along paths parallel to and equal to the paths $\overrightarrow{AB}$ and $\overrightarrow{BC}$ inside the vehicle, but we will describe them as the same paths for convenience)

Observer O got the time that when light pulse "β" finished the path $\overrightarrow{AB}$ and $\overrightarrow{BC}$ is equal to:

$$\Delta t_\beta = \frac{|\overrightarrow{AB}|+|\overrightarrow{BC}|}{c} = 2\frac{|\overrightarrow{AB}|}{c} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (5C)$$

Figure 17*



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Because:

$$|\overrightarrow{AB}| = \sqrt{d^2 + \overrightarrow{AD}^2} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (6C)$$

$$= \sqrt{(c\cdot\frac{\Delta t}{2})^2 + (v\cdot\frac{\Delta t}{2})^2}$$

$$= \frac{1}{2}\sqrt{(c\cdot\Delta t)^2 + (v\cdot\Delta t)^2}$$

$$= \frac{1}{2}\sqrt{c^2+v^2}\ \Delta t \qquad \text{(From Figure 12)} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (7C)$$

So:

$$\Delta t_\beta = 2\frac{|\overrightarrow{AB}|}{c} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (8C)$$

$$= \frac{\sqrt{c^2+v^2}\ \Delta t}{c}$$

$$= \sqrt{1+\frac{v^2}{c^2}}\cdot\Delta t \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (9C)$$

The result here is the time light pulse "β" takes to travel along the same path with the light pulse "α", but the time is different. That is:

$$\Delta t_\beta > \Delta t = \Delta t_\alpha \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (10C)$$

This result of course totally disagrees with Einstein's speed of light postulate.

Because in Figure 12 the distance of $|\vec{AB}| = \frac{c\Delta t}{2}$; substitute this to (8C) and we will get:

$$\Delta t_\beta = 2\frac{|\vec{AB}|}{c} = 2\times\frac{c\Delta t}{2c} = \Delta t \quad \text{this is against the result of (10C)} \quad \ldots\ldots\ldots \quad (11C)$$

Based on the fact: $v_\beta = c$ $\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots$ (12C)

From the experiment we got:

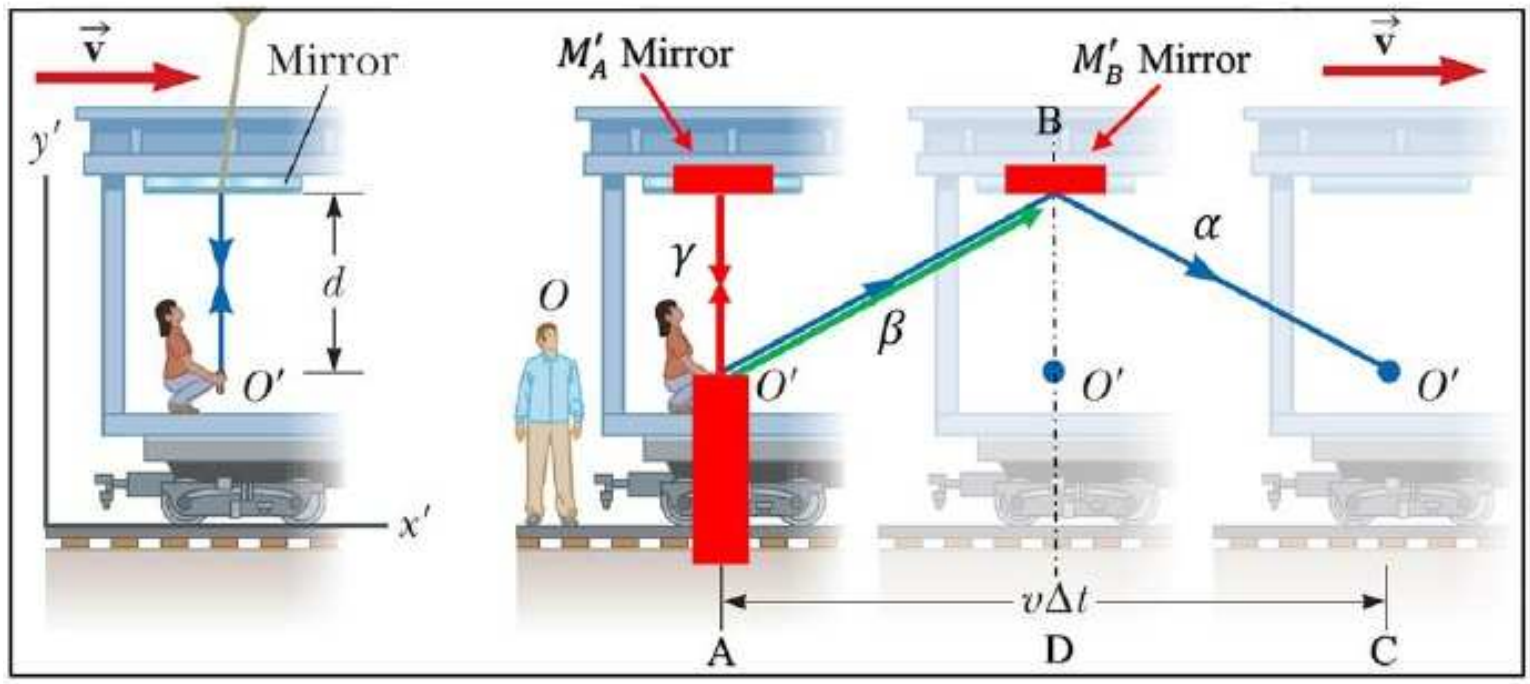
$$v_\beta = c = 2\frac{|\vec{AB}|}{\Delta t_\beta}, \quad v_\alpha = 2\frac{|\vec{AB}|}{\Delta t_\alpha} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (13C)$$

The result from (9C) and (12C) is:

$$v_\beta = c < v_\alpha \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (14C)$$

Result of Stage 2: This of course clashes with Figure 12 and Figure 13.

Einstein's postulates would have the light pulse "α" pass the path $\vec{AB}$ with the speed of c. In our thought experiment we could find $v_\alpha > c$ as shown above.



If two light pulses, with the same speed c, pass an equal distance; the time must be the same. However, my experiment above has the result of light pulse "α" passing though $\vec{AB}$ with a speed greater than c. That means that even without first proving his Second Postulate wrong, simple reciprocity not only crushes his time dilation and length contraction, but also undercuts his Second Postulate directly.

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In other words: if the time is the same, the speed of the light must be different. So the light speed in reference to the different frames is different, just as in the Figure 11 the ball must have v_x to give it horizontal motion. The result is that we see clearly relativity was created by Einstein due to and purely due to his speed of light constancy postulate.

Continuing to Stage 3, we also get:
According to the "Note #1" that I marked in the Figure 12, it is:

$$\left|\overrightarrow{AB}\right| = \frac{1}{2}\ c\ \Delta t \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (15C)$$

And we also got from (4B) (7B):

$$\left|\overrightarrow{AB}\right| = \frac{1}{2}\ \sqrt{c^2 + v^2}\ \Delta t \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (16C)$$

So we get:

$$\frac{1}{2}\ c\ \Delta t = \frac{1}{2}\ \sqrt{c^2 + v^2}\ \Delta t \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (17C)$$

Simplify to:

$$c\ \Delta t = \sqrt{c^2 + v^2}\ \Delta t$$

And:

$$c = \sqrt{c^2 + v^2} \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (18C)$$

Result of Stage 3: This states the speed of light along this section under our experiment, a value greater than the speed of light in vacuum. This is the only way for light pulse "α" to finish its path within the same time as the light pulse "γ".

Looking back to the processing in the frame of observer O, we see light pulse *"β"* and *"α"* are following the same path, and the calculation for the light pulse "β" is absolutely sensible. Reciprocity applied here dictated that the story of "time dilation" theorem on all books are wrong, which leads us to conclude that Einstein's postulate of "*the constancy of the speed of light"* is wrong.

Note also that Einstein used Euclidean geometry when creating his special relativity, but insisted on switching to Riemann geometry, *where the Pythagorean Theorem does not hold*, for general relativity. **This is as severe a logical violation as throwing away a postulate** because if not for his obsession with c and the use of Pythagorean Theorem he would not have gotten the special relativity that formed the basis of his general relativity!

Now, we should consider a return to largely Newtonians physics. There are quite a number of reasons besides this thought experiment, which already shows us that Newtonian physics doesn't clearly defeat itself at any point (unlike what we'd shown before). The Newtonian supporters in Einstein's day also calculated the correct values of light deflection by the Sun based on Newtonian and Weber's mechanics. Weber was superseded by Maxwell, yes, but Maxwell was also superseded later. No one thought to look back after Maxwell's being understood to be full of approximations, and redo the calculations according to Newtonian perspectives.

I will soon make a presentation on how Newtonian calculations could have obtained the starlight deflections that Eddington and cohort obtained.

And let's not forget that once black holes were discovered and confirmed, the Schwartzchild radius could be evaluated very simply by Newtonian mechanics and still be fully correct. This lack of review of basic mechanics in light of post-Einstein discoveries such as dark matter/energy and the just mentioned subjects is an astounding oversight and it's about time we fixed it. Unfortunately, no one has bothered trying to seriously disprove or prove Einstein after 1919, due to bandwagon effect. The times were not as tumultuous as 1905, so anyone going against the flow tends to be suppressed from publication.

From a more Newtonian perspective we need to go back to the Figure 12. To make the object have an x-axis motion there must be a velocity along the x-axis. So from the frame of observer O the light pulse 'α' actually has two velocity components that are:

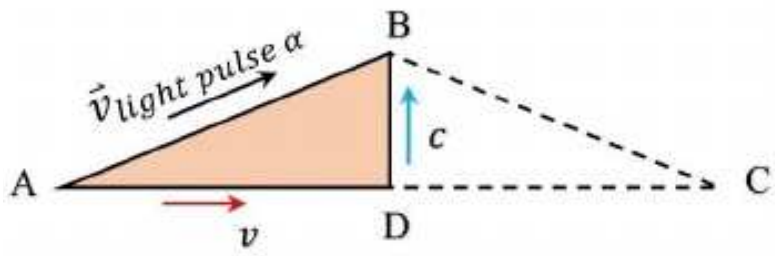
$$\vec{v}_{x-light\ pulse\ \alpha} = v \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (19C)$$

$$\vec{v}_{y-light\ pulse\ \alpha} = c \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (20C)$$

So from the frame of Observer O, the light pulse 'α' velocity will be:

$$\vec{v}_{light\ pulse\ \alpha} = \sqrt{c^2 + v^2} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (21C)$$

Figure 18*



This is the only thing could explain the observations of both Observer O and Observer O'. The light pulse "α" could travel from A to B but not stay straight up.

So from the Observer O he will see the light pulse "α" move at:

$\left|\overrightarrow{AB}\right| = \frac{1}{2}\sqrt{c^2+v^2}\,\Delta t_p$ (Δt_p As in Figure 12) …… (22C)

And the time Observer O will see as equal to:

$$\Delta t = 2\frac{\left|\overrightarrow{AB}\right|}{\sqrt{c^2+v^2}} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (23C)$$

$$= 2 \times \frac{1}{2}\frac{\sqrt{c^2+v^2}\,\Delta t_p}{\sqrt{c^2+v^2}}$$

$$= \Delta t_p \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (24C)$$

We got the result same as in (4B):

$\Delta t_\alpha = \Delta t_\gamma = \Delta t_p = \Delta t$ …… (25C)

Result of stage 4: Unlike Einstein's theory which self-destructs at every single stage when one actually thinks about it deeply for more than a few seconds, Newtonian physics demonstrate no such issues. There is no need for Einstein's Relativity, nor any basis for it.

VII. CONCLUSIONS

In point form, I list the following conclusions from this document:

a) My thought experiments above have demonstrated that the speed of light postulate leads relativity to be inconsistent with itself, so both must be incorrect, because relativity exists purely due to this postulate. As the postulate is wrong, the derivation of relativity must be wrong.

b) On the other hand, Newtonian mechanics always produces a consistent result.

c) The laws of physics must be the same in all inertial reference frames when not affected by dark matter/energy. This then includes when the frame's speed is over the speed of light relative to some other frame.

d) The speed of light is not a speed limit. This mental shackle has been imposed by relativity for 100 years. (This has already been partly shown experimentally with quantum entanglement, since observing one particle allows collection of information regarding the other particle's behavior faster than light allows. Any mathematical proof stating that one cannot transmit any bit (e.g. 0 or 1) or fraction of a bit of data through this is amusing, as knowing how another particle is behaving is data that takes many, many bits to describe.)

e) My vision of time is that everywhere in the universe there is only one time flow and base. How you measure it depends on you, but the time base will be the same. It never changes because of any differences in observers. It is just like how sleeping does not put reality on hold.

f) Under the above proof there is no relativity, so the momentum of any object should always be directly related to: $\vec{p} = m\vec{v}$ (includes: $v \geq$ c).

g) Under the above proof there is no relativity, so the kinetic energy of any object should be directly related to: $K = \frac{1}{2} mv^2$ (includes: $v \geq$ c).

h) Under the above proof there is no relativity, so the total energy of any object would be similar to: $E_{total} = \frac{1}{2} mv^2 + \underline{mc^2}$ (we include: $v \geq$ c)

i) As shown by my thought experiment above, a constant speed of light is completely unreasonable and self-defeating, so without this shackling, similar thought experiments to Einstein's must result in an also internally consistent worldview with varying speed of light, no time dilation, and no length contraction.

As I had shown above, 'Einstein's Relativity' has a large enough mistake at its very base in the Second Postulate that it cannot continue to be valid. It will be a great story in the future how Einstein and his respectable ideas ruled physics for one hundred years, though it ended up being shown as a mistake. Meanwhile, Newtonian mechanics can produce rational results where Einstein cannot, and so, much to Mr. Einstein's misfortune, we must conclude that Newtonian mechanics, with appropriate and extensive modernizations, should return to the forefront of physics. This may also explain why Einstein never found a Universal Theory, because he couldn't get past his own relativity.

Even though we have yet to observe speeds over the speed of light in vacuum, I wrote another document with a name of 'A Thought Experiment on Surpassing the Speed of Light'. In my document, I demonstrated a new experiment which could make the speed of a charged particle surpass the speed of light. I explained in this article why no modern accelerators could reach the speed of light by consequence of design. Maybe in the near future one of us will achieve a speed over the speed of light by using my experimental proposal.

Even if something has already gone over the speed of light, with current technology it would have been hard to measure or detect it. Still, we could sense it from beside its trajectory, and in front of it. The result should be analogous to Cherenkov radiation.

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Under my proof where relativity defeats itself, there should then be an absolute time in the universe. The time has counted since long before Earth existed, and long after Earth is gone the time will continue counting. No one should use their limited experiences and perceptions to pass judgements on the passing of the universe's time. Light is able to be bent, but time is not a form of mass-energy, it should not bend. People thought time was able to be bent due to their own mental contortions, but in the end they all realize sooner or later that time waits for no one…

In the history of all sciences, to make mistakes is common and respectable. If there is a mistake, then correcting the mistake is also respectable. We should thank Einstein for his brave work in the history of science and history physics, and I thank him for leave me a great opportunity to prove his "Relativity" to be wrong, both in theory here and hopefully soon in practice with my proposed accelerator design in my other paper "Surpassing the Speed of Light". I will demonstrate even more of the myriad mistakes of Relativity in another document in the near future.

The unfortunate thing about relativity is that for a hundred years, it has neither been disproved, nor truly decisively proved. The conflicts Einstein had with quantum mechanics state quite enough of how Relativity could not be decisively proved right. And now I became the first to prove "Einstein's Relativity" to be wrong, which explains many of Relativity's difficulties.

I believe that all professional scientists who have high math or physics knowledge will find this document to be reasonable. I believe that it is the time to correct the mistake and return the truth of science, physics and knowledge. I think it is the time of us to cast away the Emperor's New Clothes, and give physics a real time reference.

I believe that professional scientists will understand and agree with me.

I believe the Faster-Than-Light Age should soon be upon us.

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