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The False Reality Created by the Self-Deceived Observer ©

What We "See" Can Lead to the Fabrication of Imaginary Science

Abstract

This paper proposes that reference frames have not been properly examined and understood. This leads to what we all can truly see becoming a false reality of what is happening. It can also lead to a misunderstanding of why it is happening when trying to decipher the science of the observed event, since the subject, the Reference Frame, and the location of the observer all play a critical role. What we see can Lead to the fabrication of non-existing forces and the denial of the real forces. This is not about the standard optical illusions that can show up in everyday objects in our daily lives that distort reality.[1] This is an even more subtle and difficult perspective for people to acknowledge and accept. The argument given to show the validity of the Special Relativity Theory is the classic example of this that should be examined in greater depth from a perspective not previously viewed. Mixing Reference Frames is not science and only leads to confusion. One major such confusion led to the conclusions adopted in Special Relativity. The mixing of Reference Frames to explain and arrive at a new physics is not valid science.

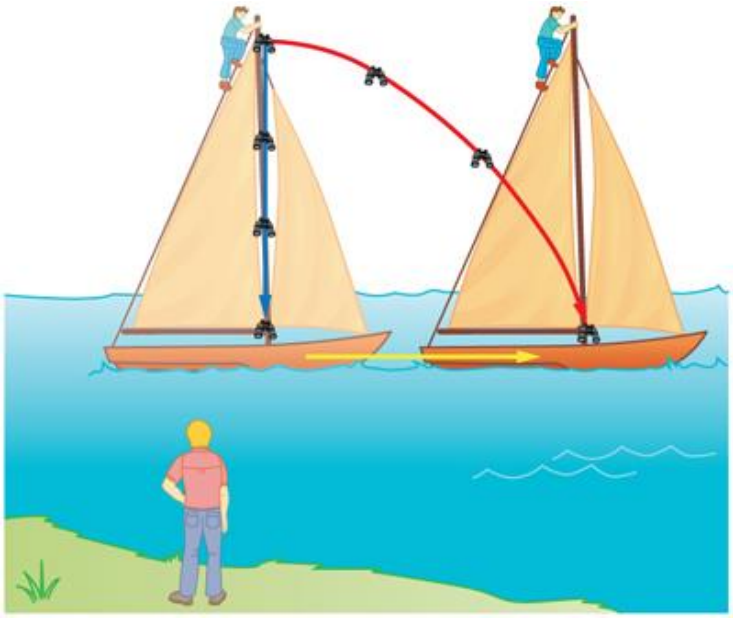
The Relativity of the Observer

The problem arises when an observer in his stationary position on Earth believes that his perspective from that Reference Frame (RF) must be the absolute final word when explaining what, how, and why what is seen happens. An observer in his RF must be careful in making any conclusions about why and what he sees when viewing the motions of objects in another RF. The mixing of RFs leads to false conclusions. Any observer in his RF is going to be limited to what judgments he can make when he sees the behavior of a particular object in another RF. The insistence that the observer at rest in the Earth Inertial Reference Frame is the only valid observation point to truly explain what is happening only leads to false searches and conclusions such as:

- The Michaelson/Morley experiments
- The Lorentz transformations

- The existence of length contraction
- Time dilation
- The slowing of clocks
- The twin paradox
- Simultaneity
- The existence of real or fake forces
- Is it a centripetal force?
- Is it a centrifugal force?
- Is it an apparent force, a G-force?
- Observer misunderstanding leading to the denial of reality

The actual path traveled by an object only exists in the mind of the observer in his RF and in what RF his mind is aligned with. The classic example of a ship moving at a constant speed and direction (no acceleration) with a sailor on the top of the mast dropping an object seen by an observer on shore is an excellent example of this[2].



Let us consider an example of what two different observers see in a situation analyzed long ago by Galileo. Suppose a sailor at the top of a mast on a moving ship drops his binoculars. Where will it hit the deck? Will it hit at the base of the mast, or will it hit behind the mast because the ship is moving forward? The answer is that if air resistance is negligible, the binoculars will hit

at the base of the mast at a point directly below its point of release. Now let us consider what two different observers see when the binoculars drop. One observer is on the ship and the other on shore. The binoculars have no horizontal velocity relative to the observer on the ship, and so he sees them fall straight down the mast.(See Figure) To the observer on shore, the binoculars and the ship have the same horizontal velocity, so both move the same distance forward while the binoculars are falling. This observer sees the curved path shown in Figure. Although the paths look different to the different observers, each sees the same result—the binoculars hit at the base of the mast and not behind it. To get the correct description, it is crucial to correctly specify the velocities relative to the observer" [2].

It creates an "illusion" about what is happening because it mixes two different Inertial Reference Frames (IRF). The observer at rest outside the horizontal moving ship is chosen as the absolute observer. His perspective is relative and thus an illusion since the object only travels vertically falling parallel with the mast to the ship deck. For him, it only moves through the falling curve path as seen by the observer on shore in his IRF. It is not an illusion, it is real. Those on the ship only see it fall directly down to the deck. So, which perspective is truer and gives better information about what is happening? Is it even correct to ask that question? The problem is when one observer tries to decipher the difference between the two IRF and what the difference means.

The observer on shore has found a need to assign an added velocity vector to this path seen in his IRF and ask what this means from his perspective in understanding inertia with the object in "possession" of this horizontal velocity.

Another example for confusion is a car accelerating on the flat surface of a huge ship that is also accelerating with its accelerating vector in the opposite direction while all this is being observed by an observer on shore.[3] The observer on shore might see the car on the ship as if the car was on a treadmill thinking the car is not separate from the ship. The ship is treadmill to the sea, not the car. The observer on shore still sees, if he is looking, that the car really is moving towards the right end of the ship. Because it is accelerating at the same rate in that direction due to power from the car it only appears to be stationary to the shore reference frame observer if he fails to examine the whole scene.

Contradictions and confusion arise in dealing with RFs when the object(s) in the system under study is in rotation to the Earth reference frame.

Take the classic amusement ride called the Graviton where the system rotates at high speed and the occupants feel they are being forced and held against the perimeter wall. Those in the Earth reference frame assign the centrifugal force experienced by the occupants on the ride as a fictitious force. A fictitious force that is used in applications that can cause injury. The math analysis declares that the acceleration is inward toward the center. The outside observer defines the real force as the centipedal force coming from the wall pushing to the center. The mathematics all works out, but it is confusing if the different observers cannot agree on what is real because the reality is also relative.

> *"The difference between centripetal and centrifugal force has to do with different 'frames of reference,' that is, different viewpoints from which you measure something," said Andrew A. Ganse, a research physicist at the University of Washington. "Centripetal force and centrifugal force are really the exact same force, just in opposite directions because they're experienced from different frames of reference."* [4]

Changing the reference frame viewpoint changes the science that is to be viewed and examined. Data is collected and conclusions are made about the witnessed event. Since the falling object is on the ship would examination of the event be more valid in understanding the workings of the Universe if viewed from the ship's IRF?

Galileo made it clear that the laws of physics are still the same in this constant velocity moving vessel. No need for new physics here. The need for new physics that takes us down a never-ending rabbit hole manifests when it is decided that events must be analyzed from an alternative reference frame.

Special Relativity (SR)

SR is the example where this distortion of reality has been exploited to the maximum extent because at this point Einstein introduced an added factor that was not previously in the mix when dealing with the analysis of an Inertial Reference Frame (IRF). That is the speed of light in the vacuum. Light became the elephant in the room.

This factor was unique because it apparently had a distinctive feature apart from the objects that have mass that exist in the IRF. The speed of light, according to Einstein and confirmed by Maxwell's equations, is independent of any source velocity. Regardless of the source velocity, light speed would always be 'c' if there was no acceleration or gravitational field involved. Galileo had already shown that the laws of physics should be the same in all IRFs. But how to deal with light?

This was unchartered territory. There were no rules about mixing Inertial Reference Frames when trying to work out the science. Light speed is the same for all IRFs per Maxwell's work. That meant that any individual would only find the speed of massless light **in his IRF** to be 'c' because it was transported by or allowed by Space energy to pass Space without any change to its velocity. It strictly meant that each IRF could not figure out his speed. **It did not mean that an observer in his IRF could correctly make a judgement about what his observation of another IRF would be** if both were viewing and experiencing the same event that involved light speed as a factor in what was happening.

Inertia Returns

Since Einstein's outside observer could now assign a relative velocity to the other IRF he was at that point removing his setup from the condition established by Maxwell for maintaining the constant light speed 'c.' To hold Maxwell's condition no knowledge of relative velocity to light speed was allowed. No isolated IRF could determine its relative state of rest or speed. Under that condition light measured at 'c.' But once one IRF was tied to another, that rule was broken. **The ether itself that Einstein was trying to remove at that time from the analysis was now, unknown to Einstein, a contributing factor in this unified reference frame. Now other objects that had been previously absent are present and have a horizontal velocity vector. That would bring inertia into this setup and with inertia comes the ether, the energy of Space itself that detects motion.** Perhaps it is like collapsing the wave form and violating Nature's measurement rule as in the Double Slit Experiment (DSE). In the DSE, Space is part of the event.

Einstein tried to analyze an event happening in one IRF as viewed by an observer in another IRF with his added postulate. Since it was his belief that light would always be traveling at 'c,' examination of the thought experiment that he provided found that time itself must be changing for the IRF viewed by the observer in the outside IRF. It was essentially analyzed as one IRF with two observers. The idea of two separate IRFs was lost. It evolved into a thought experiment of an IRF observer viewing a time clock passing in another ship. It was locked into the postulate of light speed, fixed at 'c,' and required Time to be a new dimension that was

joined with Space. That conclusion led to an entirely new perspective on how physics would perceive Time and Space. It was a major end game when starting only with two IRFs dealing with light speed in a thought experiment.
This author in an earlier paper published here at the GSJ offered an original modified version of Einstein's thought experiment and found that time was not changing and that it was not correct to assume that his light speed postulate could be applied without question when one IRF views another IRF. [5]

Conclusion

There is no justification for physicists to believe they have a handle on understanding, and using RFs to the extent they could mix events in different RFs with different observers and produce a new science that joins Space and Time.

In consideration of the many historical examples that have risen with the problem of dealing with the confusions of different reference frames even when the physics was thought to not be complicated, it is suggested here that the issue is not Einstein's math employed in his 1905 paper, (although there are those who are making that case), but that **it is simply may not be valid science to use unverifiable thought experiments to create new science by mixing perspectives of different reference frames, whether Inertial or accelerated.**

This would be particularly important since it is even more of an issue when it is not possible to truly validate, eliminating other explanations for the claims, if true, for the cause and existence of length contraction, time dilation, the slowing of clocks, and the twin paradox that are made for events that are happening involve the speed of light, taking place light years away in distance and time at a scale that cannot be easily studied.

All these extraordinary proposals on the nature of reality are based on one IRF observer judging what the results will be in another IRF that he has no access to, but he behaves as if they are one. And yet, the fact that the other IRF observer could make the same claims, since it is relativity and all IRFs are the same, is dismissed.

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