

Einstein's Time Dilation Experiment

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The purpose of this paper is to expand upon a conclusion I discussed in my paper on the Irksomeness of Einstein's Special Theory Of Relativity (see Submissions List). There it was pointed out that the famous prediction made by Einstein in his 1905 paper was false. Einstein said that a clock placed at the equator should run more slowly than an identical one located at one of the poles of the earth. Obviously it was implicitly assumed that the earth's rotation would produce a relative motion between the clocks that could be used to test the prediction. However as was pointed out in that paper there is no relative motion at all, so the prediction is a false one.

In my paper, I pointed out that Einstein removed this prediction regarding clocks from all of his later papers, but he never disowned the statement, or explained why it was removed from the theory in his other papers and never mentioned again. This leaves us with a mystery Did Einstein realize that it was a mistake and quietly deleted it, or did he so significantly restructure the theory in 1907 that the new theory was quite different and hence inconsistent with the old prediction of 1905? This writer thinks maybe both were reasons for his action to remove the statement in his later papers.

After writing my paper, I later learned that Dr. Carl Zapffe had published a similar conclusion in his booklet "Seven Short Essays". There he states the following: "...the Einstein clock had no real motion with respect to the coordinate axes of the Earth's field..." He drew the conclusion that since there was no real motion, there would be no time dilation observed in the experiment.

My own conclusion is different from this. I reason as follows. It is clear from the positive result of the Michelson-Gale experiment that the Earth's rotational motion can be detected using interfering light beams. The applicable theory assumes that the rotational motion relative to the geocentric frame causes a difference in the light velocity of two beams of light. Since this difference was actually detected, this result is a nasty problem. It refutes the light constancy hypothesis of relativity. This experiment is really a crowning achievement for Michelson who refused to give up his dream of detecting the motion of the Earth using light. He didn't detect its revolutionary motion but did detect its rotational motion. This paradoxical result is one of the big experimental facts against special relativity. Hence the effect of the rotational motion relative to an absolute geocentric Earth reference frame is real and the time dilation prediction should also be real as a result of motion through the Earth's geocentric aether.

I reach this conclusion because there is no physical definition of motion using coordinate systems in this case according to the special theory of relativity. The conclusion that there is motion is a physical fact and not a fact defined by the use of fictitious mathematical coordinate systems, which are imagined to be rotating in some kind of mathematical space-time. As was first claimed by Newton, arguing from his bucket experiment, rotational motion demonstrates the reality of absolute space.

Implies an absolute space. Returning to the Michelson-Gale experiment. That experiment assumes that the earth has a geocentric reference frame for defining the velocity of light and the detection of rotation relative to this assumed stationary and non-co-rotating absolute reference frame confirms its existence.

Hence this writer's conclusion is that if the experiment suggested by Einstein in his 1905 paper were performed, it should produce the result that clocks at the equator run slow relative to those at the poles, after taking into account the oblate ness, gravitational, and other factors. Dr. Zapffe on the other hand claims there would be no time dilation because he thinks that the aether field rotates with the earth, while the Michelson-Gale experiment shows that this is not the case.

This writer received a comment from Ian Montgomery as follows: "Really good point on the clock pole/equator experiment, I too now wonder why it hasn't been seriously done. They could be left there long enough to draw out uncertainties of measurement (why not years, just keep them there and monitor). And (use) several clock(s) and take averages, or swap them around after a year or so to prove beyond doubt. And yes, with slight differences in gravitational fields, that can also be measured and accounted for (they wouldn't exactly offset each other, why would they?) and the clocks left long enough to get statistically significant results. Same with faster speed on one side verses slower on the other offsetting (square law anyway) if aether is not dragged along. Actually could also be a good test for aether being dragged along with earth verses not, and if not, which direction the earth is traveling with respect to the aether."

Ian certainly got the right idea immediately. He was thinking to measure the aether drift if it exists as well. It seems true that this would be a desirable experiment to do. However, this writer was not as enthused and replied as follows: "On the clock pole experiment. This is probably more difficult than it seems. One wonders if it is feasible to do because of the various corrections that would be involved. For example does one include the correction for centrifugal force as well? David Tombe has been in a controversy over centrifugal force for some time. If that force is real it should be in the applied corrections of the gravitational field, but if it is not real should it be left out?"

"The real problem is that if you look at the experimental results, they really falsify relativity but they get around this by changing the meaning of the theory so that it applies for motion in an absolute rest frame. The problem goes back to this incorrect statement made by Einstein in his 1905 paper, which is simply false. A clock at the equator can not run slow if Einstein's theory of relativity is true, since there is no actual relative motion of the clocks."

In this reply to Ian, the main difficulty was hinted at. This is that in relativity there is no clear definition of relative motion versus absolute motion. So since there is no really clear difference, one can do an experiment and claim relative motion validates relativity or claim that the aether theory is validated because there is no relative motion but only absolute motion in the case of Einstein's clocks. The prime example of this being

anything that includes the Earth's rotation in the motion. In the Hafele-Keating experiment, they basically proved the existence of the Earth's geocentric absolute aether reference frame. The experiment assumes an absolute state of rest, relative to the Earth's center and then demonstrates the time dilation effect is consistent with that absolute reference frame. They don't demonstrate the effects of relative inertial motion at all. But the experiment is universally accepted as validation of special relativity, which is a contradiction of what the experiment actually does validate, which is the absolute nature of the Earth's geocentric reference frame. It is real, has real physical effects, and is not a fictitious abstract mathematical conception, as is an inertial reference frame. No such frames actually exist in the real world except as simplified approximations.

In his reply to me Ian suggested the following: "With the clock pole experiment, yes plenty of hurdles (real and manufactured). Perhaps the path would be to first get an agreed calculation statement' from the establishment (if possible) as to what the time rate difference should be according to relativity theory, taking all things into consideration (measured gravity difference etc) and then do the experiment as a 'relativity confirmation' test only (at first). Only then after the anomalies are proved, go further to see if centrifugal effects or relative motion with respect to the aether etc is real.

Ian certainly had his thinking cap on, and the idea is a very good one. However, the difficulties in getting a large group of experts together to agree as to what would be a positive result for aether theory and a negative result for special relativity seemed daunting to me. My reply was as follows: "I agree that the first step is to define what one expects the experiment to produce as a result prior to doing it. I would further insist that the procedure for analyzing the results after the fact should be agreed to prior to the experiment, and rigidly followed. This seems to have been the reason for the failure of the Hafele-Keating. They didn't really do it right and then hid the actual results for years until Kelly got the raw data. But by that time the belief was established that the experiment had verified relativity, when it really seems to have verified the aether theory of Larmor-Lorentz-Ives instead, if you think the results were really as they claimed them to be. Oh well."

"In my (Irksomeness) paper, I tried to make the point that the theory of relativity is simply just an aether theory that pretends that it is not an aether theory but a relativity theory, because there is supposed to be no aether. But all the experiments come up validating aether theory not relativity theory. Because Einstein didn't really understand the difference in his early papers it seems that he messed up the entire theory and how to validate the difference between them. So today relativists fudge the relativity theory to make it seem that their claims were actually validated by the experiments which instead validate the aether theory. Since no one really understands how the two theories are actually different from each other. So the evidence is all mixed up and science has perpetuated a big fraud, mainly because they really don't know what they are doing at all. I doubt if anyone like Landis or Josephson (Establishment scientists) would really dare to agree with this at all. The establishment is committed to the idea that all scientific pronouncements are true, and not in error. They don't like to admit to mistakes this

major.”

Ian’s reply expressed that he was in full agreement: “I would have to agree with everything that you said below. And once Einstein realized his early error in rejecting the aether, he tried to sneak it back under disguise through GR, I would suspect!” I think Ian is right about this because there were many statements made later by Einstein regarding the aether and general relativity that implied that he only meant to say there is no material aether, so an immaterial aether as in general relativity was not rejected by Einstein. I think he was really hedging his bets by putting forth a number of vague suggestions that could be pointed to no matter what was eventually discovered.

Ian’s next mail came after I sent him some scans of papers by Dr Carl Zapffe, which are now posted at the GSJ. Ian responded with the following thoughtful question: “Pondering Carl Zappfe and that discussion we had with leaving clocks at the pole and equator, I googled to see if I could find if in fact anyone had done it and as you said Harry, I couldn't find anything!! I did see it stated with 'certainty' many times that slower time rate at the equator due to motion will exactly be cancelled by the faster time due to a lesser gravitational field being further away from the earths centre, but no-one saying WHY it should EXACTLY cancel (sounds like 'spin' to me). Also, they must be saying that being stationary with respect to a rotating reference frame doesn't count for this to be so (more spin).”

“With Zappfe's magneto-sphere model, I was wondering also if he says that the aether rotates with the earth. If so, then clock differences (pole vs. equator) can only be gravitational (or gravitational aether velocity for inflow models) whereas if not, then translational velocity plus gravitational. Do you know which he advocated?”

“Regardless, I feel that it's insane for this experiment not to have been done whichever model is proposed. Surely it wouldn't be that expensive (certainly compared to space flights) as people are permanently stationed at the poles. We could learn so much, Makes one wonder if it's some kind of plot!!”

I didn’t have an answer to Ian’s question so I had to do some reading. I have to say, thanks Ian, for stimulating me to do this research. My answer, after reading over Zapffe’s papers was this: “I think Zapffe was dismissed as a crackpot or a cod, ie a trickster, because his idea of a magnetosphere was not understood. The reason is that he states it is obvious to anyone who looks at the aurora. Huh? The idea seems to be that if the earth is moving along at the supposed orbital velocity there could be no aurora, it would be swept away by the aether wind. Or if there simply was no aether then what holds the aurora and magnetosphere in its place? I think these things were clear to Zapffe, but not to the physics establishment. They basically accepted that relativity was irksome and this didn’t bother them since it was obviously true for them that there is no aether.”

“In my irksome paper I make the point that the Michelson-Gale experiment shows that the geocentric aether is stationary, otherwise it would rotate with the earth and there

would have been no positive result for the rotation measurement in that experiment. I hope I made this clear, if not I should do so.”

“Zapffe makes the point that Michelson only accepted the conclusion there was no Stokes aether after Lorentz wrote a paper demonstrating this. I don’t think Michelson really ever believed there was no aether. He would not have succeeded in detecting it in the Michelson-Gale experiment if he had not believed it was so. I think this is really the crucial test here. It shows there is a rotational effect relative to the geocentric field. What is a mystery is that this result is simply ignored by relativists, and Zapffe overlooked it as well. He doesn’t mention it in his letter to Dr Frosch of NASA. Dr Mutch ignores it as well when he says there is no evidence to the contrary that would support Zapffe’s idea. But Zapffe had cited the Sagnac experiment in the letter, so this was just BS from Mutch. He apparently didn’t read the letter. Zapffe wrote back pointing out where Mutch was wrong, but Mutch was dead. I doubt he spent much time on Zapffe’s request. He was busy getting ready to lead a mountain climbing expedition when he wrote his reply to Zapffe. He just blew Zapffe off as a crackpot cod, like all the others. They didn’t understand what Zapffe was saying because they didn’t want to. They didn’t think he was real and treated him as a crackpot cod. That’s all.”

“Now as I said in the irksome paper, Einstein made a blunder in saying that clocks at relative rest would show the time dilation effect due to the earth’s motion. That is not a relativity result but an aether result. We have the Michelson-Gale experiment to show us that the effect is real on light, but does it effect clock time? Hence because of Einstein’s ambiguous blunder, (Was it deliberate?), the evidence for relativity and aether becomes the same evidence for both. That is slick isn’t it? There is no way to tell them apart, so the relativists can claim anything they want is true and have the evidence to prove it.”

“Their logic is this. Michelson-Morley disproves the aether so now there is simply no aether theory to confuse us. But the theory is simply an aether theory, without the aether, which is very irksome in my view. But Michelson-Gale showed there must be a geocentric aether. What to do? Simply ignore this irksome fact, and hope it goes away? Well it won’t go away.”

“I suspect that the clock experiment we discuss here is simply too easy to fudge to give a clear result one way or the other. There are a lot of unexplained drift effects and thus one could argue about it forever. The main point is scientists only do experiments to prove relativity when they can be sure the result will support their dogmatic belief in relativity. That is the bottom line.”

My belief is the following. The experimental evidence is more consistent with the geocentric aether hypothesis of Stokes, than with the void space-time hypothesis of Minkowski and Einstein. Although the Michelson-Morley experiment seems to disprove the aether hypothesis, it did not. Michelson knew this and continued working, and eventually succeeded with the Michelson-Gale result. This is real decisive proof of the Stokes aether model. But, physics has basically ignored this result. However, the Hafele-

Keating experiment confirms it. This confirmation makes it clear that the geocentric aether model is the correct one, and the only contrary factor is the interpretation given to it which claims it confirms relativity based upon the erroneous claim made by Einstein in his 1905 paper. Hafele-Keating is basically the same experiment except with moving clocks instead of rest clocks. In this case there is no motion relative to the geocentric reference clock, so there should have been a null result. But there was a positive result, and this result is consistent with the geocentric aether model of Stokes and Zapffe.

In concluding this paper, my point of view is that the experimental evidence does not support the interpretation of special relativity as given by Einstein in his papers written after 1905. These are basically consistent with the Minkowski void space time concept. The experimental evidence is more consistent with a geocentric Stokes type aether theory as advocated by Zapffe in the 1970s. But, because Einstein made a mistake in his 1905 paper, scientists can claim that the experimental evidence supports Einstein's special theory of relativity, although the claim given in the 1905 paper was a false one within the context of what we correctly think that the special theory of relativity claims based on the Minkowski space-time interpretation. The Hafele-Keating experiment when properly understood is the decisive proof of this thesis since it proves that the results were consistent with the geocentric aether hypothesis. All we have to do to straighten out this mess is to understand that Einstein's clock prediction claim made in his 1905 paper, and deleted in later papers, was simply a false claim and it is a mistake to base verification of special relativity upon it as is done in the case of the Hafele-Keating experiment.