

Re: A little challenge for relativists.

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- *From:* John Kennaugh <JKNG@xx>
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shuba wrote:

Kennaugh is completely full of shit. I knew he wouldn't be able to understand the simple concept I presented, since he has never once to my knowledge based any argument on a solid mathematical foundation. His "challenge" can be answered in many ways, none of which he will accept, because he is an innumerate crackpot.

I have never been abusive to you I cannot understand why you should feel the need to be abusive to me. I have now had time to look at the maths you suggested I studied. I have seen such things before. Let me explain it too you. When you first came across relativity chances are you were introduced to 'light clocks' on trains.

A/ Stand the light clock vertical work out the path length in both FoR make the speed for both equal to c and you can show the time relationship (time dilation equation).

B/ Lie clock horizontal and by a similar technique (allowing for the same time dilation) you can derive the length relationship in the direction of travel between the two FoR.

Now if you were a bright and curious student (I am not suggesting that you were) you might ask the obvious question as to why in 'A' you assumed that time was the variable. Why not get the speed the same by making the clock taller for the observer on the train than for the observer on the embankment? The answer to that is that if you do that you cannot get B to work. Put simply in order to accommodate the notion that the speed of light is constant in all frames of reference you have to ditch two axioms of physics (universal time and distance) and even then you have only just enough degrees of freedom to reconcile the 'apparently irreconcilable' second postulate with the PoR and ONLY one solution is possible.

It comes as no surprise therefore that if you start by assuming transforms of a 'general form' that you can show that that there is only one solution. I worked that out 40 years ago considering light clocks on trains.

If you actually study the maths you quoted then it starts off in the

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Appendix in chapter 13 then jumps to Chap 10.8. Using @ instead of delta
It proposes two general form transforms:

$$\begin{aligned} @x &= A @x' + B @t \\ @t &= C @t' + D @x' \end{aligned}$$

Note that right from the beginning that if you take the alternative to relativity - source dependent theory - Galilean Relativity, then you do not have to ditch two axioms of physics so $C = 1$ and $A = 1$ and $D = 0$

The author drops the delta notation and ends up with two equations (14.83) which he imports into Chapter 10.8 These are:

$$x = A(x' + vt') \quad \text{and} \quad t = A(t' + x'(1/v)(1-1/(AA)))$$

Which if you put $A = 1$ Simplify to $x = (x' + vt')$ and $t = (t')$
as per Galilean Relativity.

With foresight - because he knows what answer he wants he now plucks from thin air the following equation which in effect assumes there is an invariant speed V because he knows that having defined it thus he can show that V is independent of v .

$$1/(VV) = [1/(vv)](1 - 1/(AA))$$

This he claims is without invoking the speed of light postulate.

You note however that in source dependent theory, and Galilean Relativity, $A = 1$ so $(VV) = \text{infinity}$ which means that whatever mathematical rabbits he produces from the hat are totally irrelevant to Galilean Relativity. It would be a sophisticated version of the old trick of proving that $1 = 2$ by surreptitiously dividing both sides by zero.

Without reading any further I expect that he will show that V is independent of v that there is one unique set of transforms (See light clocks and trains), the invariant speed V turns out to be c - the speed of light and that Galilean Relativity must be wrong because the maths show that it assumes the speed of light is infinite.

No Galilean Relativity assumes the speed of light is 30cm/ns relative to the source. There is no invariant speed because all speeds are relative including the speed of light and there is no theoretical upper limit to

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speed only very practical limits. Infinite speed requires infinite available energy.

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John Kennaugh

to email convert the number from hex to decimal

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