Dingle's criticism of Special Relativity

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This is going over old ground again. When Herbert Dingle criticised Special Relativity for the twin paradox, I think that things could have been better said.

Dingle

I think what Dingle meant or badly said could be better said as follows:

For Special Relativity with its moving clocks running slower, given two observers A and B moving at constant velocity v with respect to each other.

On A's clock has time rate t_A and observes B's clock moving with its time rate t_B , thus for "moving clocks running slower" t_A is greater than t_B which we write $t_A > t_B$.

Now given this : $t_A > t_B$, observer A would conclude B observes A's clock as faster so that $t_B < t_A$ (prediction 1).

However, now applying the Principle of Relativity: Observer A knows from B's frame that B would observe A's clock as moving hence that would mean $t_B > t_A$ (prediction 2).

So A predicts: $t_B < t_A$ (prediction 1) and $t_B > t_A$ (prediction 2) according to the theory of Special Relativity (and this is for t_A and t_B being non-zero); this is a contradiction.

Various people try to overcome the difficulty by appealing to acceleration etc., but this all takes it from the realm of Special Relativity (in the form of Special relativity that Einstein was working within, not its various updates)[note 1]. In the realm of Special Relativity – it is inescapable that there is this contradiction.

The consequences of adding the constancy of light (as postulate) to the Principle of Relativity leads to a contradiction and that therefore disproves the theory.

Everything else in Special Relativity just builds upon acceptance of contradictions like this. A theory cannot give contradictory results because despite "it" being right maybe 50 per cent of the time, the other 50 per cent of the time it is wrong.

I think this above was maybe what Dingle was trying to say.

Dingle was a supporter initially of Einstein's Special Relativity. But I think the problem there is that

if one initially gets taught Special Relativity and told something like prediction (1) $t_B < t_A$ as being the consequence of Special Relativity without being told that Special Relativity also predicts prediction (2) $t_B > t_A$ that one can be fooled. However, when Dingle realised that Special Relativity made two contradictory predictions and hence was inconsistent he then realised it was wrong.

If we look at the steps again leading up to the predictions. The step to prediction (1) is without use of the Principle of Relativity; it is when we use the Principle of Relativity that the prediction is reversed and becomes prediction (2). Hence adding the Principle of Relativity to the idea of constancy of lightspeed (as postulate) this leads to contradiction. In other words the theory does not work. Einstein being bad at math would not have realised this, and would have not noticed the contradiction and just accepted the theory. (Ideally if he was mathematically competent, he should have looked to make sure that his theory did not lead to contradiction; but he wasn't so he didn't.) His appeal then was to others similarly poor at math to accept his mistakes; leading then to him becoming a legendary genius.

Relativity issue

For Relativity before Einstein altered things, if observer A was in a rest frame and was observing B travelling at constant velocity v then by Relativity from the rest frame of B, then observer B observes A travelling at constant velocity v in the opposite direction.

Where Einstein tries to confuse things is that he has A observing B's time as slower and observing A's time as slower.

It is okay for A to observe B as velocity greater than A's, and for B to observe A's magnitude of velocity greater than B's. This is because we are talking of frames of reference: Where have rest frame of A and rest frame of B, move from one rest frame scenario to the other and we move from what is observed moving. But when Relativity is changed so that A says B's time rate is slower than A, and B says A's time rate is slower than B's it gets nonsensical that clocks are setup in that way of move from rest frame of A to rest frame of B giving clocks changing their rates.

If we had that A was saying t_A greater or equal to t_B (instead of earlier having t_A greater than t_B) with Relativity giving us B claiming t_B greater or equal to t_A ; then this would imply that $t_A = t_B$ i.e. that the clock rates were the same. It is more sensible to have the clock rates set the same, rather than have some complicated setup for changing the clocks to conform to having lightspeed in vacuum as constant.

The math

A typical type of claim by a relativist is something like this : "Relativity claims that every observer is at rest relative to his frame of reference, whatever its motion, and the light velocity postulate reinforces that by saying that light is always isotropic relative to the observer."

The first part: "Relativity claims that every observer is at rest relative to his frame of reference, whatever its motion" - merely points out there are rest frames; usually we consider the Special Relativity situation of inertial observers (when constant velocity).

It is the second claim that causes problems: "and the light velocity postulate reinforces that by saying that light is always isotropic relative to the observer."

It should be saying -which observer! There are two different claims are mixed here in the supposed "lightspeed postulate".

If an observer in a rest frame observes light emitted as c, and a second observer moving with respect to him - would he observe that light as c? Answer: In the Newtonian context – he would not.

So in Newtonian physics - observer in frame where light emitted from a source at c, is not the same speed as per a moving observer with respect to that emitter.

When we look to Einstein - he has c for a observer stationary with respect to the light source, and then has light moving towards a mirror and bouncing back.

If we now refer to the diagrams we have distances:

$(c+v)t'$ and $(c-v)t'$

these are multiplied together to give:

$(c-v)(c+v)t'^2$

and then equated to the distance ct multiplied by itself.

So we have:

$(c-v)(c+v)t'^2 = c^2 t^2$

This is then used to hide what would be variable lightspeed as instead being variable time.

So then it becomes mere relative (or convention) as to whether we have

1. variable light speed and universal time
or
2. constant lightspeed and variable time

i.e.
$(c-v)(c+v)t'^2 = c^2 t^2$

gives us $(c^2 - v^2)t'^2 = c^2 t^2$

divide through by c^2:

$t^2 = (1 - v^2/c^2)t'^2$
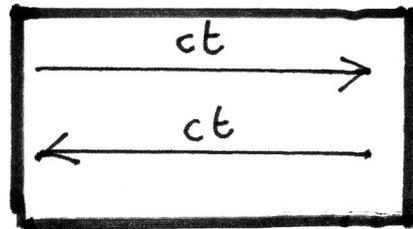
square root this:

$t = \sqrt{1-v^2/c^2}\, t'$

Divide through by sqrt $(1- v^2/c^2)$ and this is the time dilation equation.

If however set t=t' then instead of $(c^2 - v^2)t'^2 = c^2 t^2$ should have had:
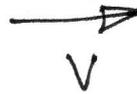
$(c^2 - v^2)t^2 = c'^2 t^2$

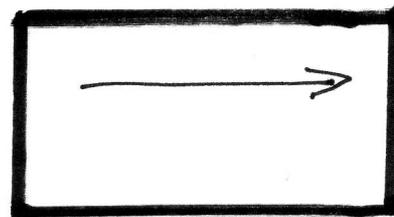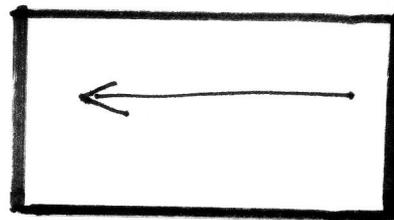giving: $c' = \text{sqrt}\ (c^2 - v^2)$ as the variable speed.

(1)

Rest frame

ct

ct

(2)

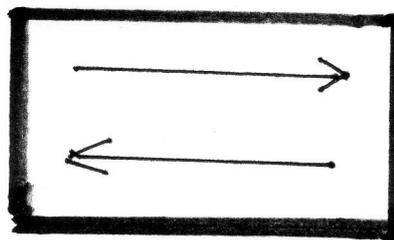$(c + v)$

Rest frame

eye

v

(3)

$(c - v)$

Rest frame

(4)

$(c+v)t'$

Rest frame

$(c-v)t'$

Diagram (1): In rest frame – light travels first ct in one direction and then back again as ct.
Diagram (2)-(3): Rest frame now observing box travelling at velocity v.
Diagram (4): Light travels distances (c+v)t' and (c-v)t'

Other issues

There are thus numerous contradictions in Special Relativity, consider for example the following question:

An object moves with velocity 2 m/s then increases its velocity by 3 m/s what is its velocity?

In Newtonian Physics this sort of question is easily answered by adding 2m/s+3m/s to give 5m/s as the velocity of the object.

In Special Relativity this sort of question is not so easily answered because of ambiguity of when to use Newtonian velocity addition and when to use relativistic velocity addition.

The formation of the equations of Special Relativity uses Newtonian velocity addition, I.e when addition using "+" is just ordinary addition. But after using "+" in the ordinary way, Special Relativity then decides to replace it by what is called relativistic addition to prevent speeds greater than c. It is contradictory to sometimes use "+" to mean one thing and then another. So in the case of 2m/s+3m/s in Special Relativity it sometimes means 5m/s and other times means relativistic addition is that 2+3 is slightly less than 5.

There are numerous ambiguities such as this, which amount to contradictions that the users of Special Relativity have to ignore.

Now let us consider the Emperor's new clothes- in the fairy tale – it was deemed that you had to be clever to see the clothes, else the clothes seemed invisible to you. Einstein is like the Emperor of Modern Physics, and the final insult that the Einstein supporters throw at his critics is that they are not clever enough to see the theory.

What we can deduce from this is that there is a psychological issue at stake here where the sheep will just follow what they are told from supposed authority so that they don't appear stupid; hence blind acceptance of Einstein by many.

On the critics side of things by the steps we have just followed - Einstein's theory just does not work, so the issue becomes how to fix the problem, various attempts have been proposed:

1. The problem above comes when the Principle of Relativity is introduced, so one proposal is to reject the Principle of Relativity.
2. The Principle of Relativity works in Newtonian physics before Einstein made his modifications to it, so one proposal is to reject Einstein's changes to it.

3. Einstein proposed both constancy of lightspeed and Principle of Relativity; so why not reject both.
4. Einstein proposed constancy of lightspeed and Principle of Relativity; why not try to modify them a bit. (Maybe introduce different types of "lightspeed" such as "local lightspeed" etc.)
5. Why not keep Einstein's proposals and try to modify other ideas in physics so that his proposals work.
6. Numerous other proposals etc.

Where the critics fall down is with - what to change to make Einstein's theory work; because they can't agree.

But putting that issue aside – Einstein's theory never worked, and it is being falsely portrayed as working. So it acts like an intellectual bottomless pit. (Looking at things the other way though – and the "theory" is accepting a contradictory nature.)

Consider the money-pit-- a house is bought that is so badly in need of repair that any amount of money that is pumped into restoring the house only causes more damage resulting in more money needed to fix the house; so that the house repair acts like a bottomless pit for soaking up all the money of the people who bought the house.

Similarly, Einstein's theory is a bottomless pit; it is so badly in need of repair that it soaks up all intellectual effort in trying to fix it.

Einstein's theory should never have been accepted. It is as Essen describes it a "Joke" or a "Swindle". Einstein sold us an intellectual bottomless pit.

So the issue we should accept even though on others issues we have disagreement is that:

Einstein has given us over a hundred years of wasted intellectual effort; that is his legacy to us. (Things should not have been built on his way of doing things! Other issues include that he might have really meant stipulation not postulate, which would change the analysis here based on postulate of lightspeed.)

Reference

[1] Relativity – joke or swindle, Essen http://www.ekkehard-friebe.de/Essen-L.htm

[note 1] I work from math models, and math models can be updated, hence when Einstein worked on Special Relativity in the form that he treated it – it was the basis for what could be updated to include extra effects.

[note 2] What is meant by lightspeed above is – lightspeed in vacuum, free of influences.

c.RJAnderton26-06-2011