Examples of denial by special relativity believers: report on PIRT conference 2012

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Based on Physics conference [1] I recently attended, being in contact with two people: Osmaston and Raftopoulos.

Special relativity (SR) has not been properly and ambiguously defined as to what it really means, but trying to put that issue aside there is a distorted belief in SR by SRists (special relativity believers), where those people live in denial as to the evidence against their distorted beliefs.

Mainstream lives in state of denial as regards evidence against SR . It has done so for a very long time now, so now I present example of four denials where mainstream refuses to look at issues around SR:

Four examples:

1. Miles Osmaston an electrical engineer reporting on classified work he did says:

"During that work he [Miles] made a serendipitous observational discovery (1959) which directly conflicted with one of the principal precepts of Special Relativity. This was recognized as such by the head of the establishment and specifically funded for 9 months, but the results could not be published (secret work)." [2]

I looked at what he is talking about and its the ether issue. Many SR texts claim that ether does not exist. Evidence such as classified work is being ignored by the SRists and it is a mess as to whether SR really denies ether, because SR is not clearly enough defined and SRists make differing claims.

So this is example of state of denial on sorting out the ether issue. Other evidences on this same issue exist in the science literature.

2. Many experiments such as Ives-Stillwell experiment are claimed to support SR, but when look into them in more detail it is found they can be interpreted by other theories.

For instance W L Craig in book "Time and the Metaphysics of Relativity" [3] points out that the Ives-Stillwell experiment can be interpreted by Lorentz-Larmor theory not just by SR.

Really its back to the issue of the ambiguity of SR, as to whether it accepts existence of ether. If SR denies ether then experiments deemed to support SR can be interpreted by theories that allow ether.

3. Dionysios G. Raftopoulos reports on writing articles critical of SR in Greek science journals he says:

"Those articles, although they did cause a great stir in Greek scientific circles and fuelled many heated discussions, seemed to unfortunately "annoy" certain influential members of said circles who, while refusing to comment on its scientific validity, took it upon themselves to "burry" it, this time on the pretence that it hadn't been published in an established "International" Scientific Journal." [4]

So the SR supporters find excuses like this to ignore the criticisms of SR.

Now, for the 4th denial of the SRists – the reason why they ignore the criticisms is because the theory does not make sense:

4. Consider two people A and B, where A observes B moving at constant velocity v. Now light can be emitted from A frame and B frame (consider in same direction as v), let us say light-speed emitted in A frame is c_1 and light-speed emitted in B frame is c_2. (Considering scenario of vacuum and ignoring effects such as gravity.) According to Newtonian physics c_1 and c_2 are two different things and are not equal, but SR seems to want to treat them as equal (subject to ambiguity issues of SR that need clearing up). Now that is from a Newtonian physics perspective utter nonsense, they are not equal. SRists try to get out of this problem by changing what is meant by addition, by time etc., but all of that is building upon what they want to assume of c_1 and c_2 being equal. But that is nonsense according to how Newtonian physics is formulated. So we have the 4th example of issue that SRists want to ignore and not address – namely that what they want to work from is nonsense in Newtonian physics context, so there is no sensible reason for making the change.

i.e. "they" cannot face open discussion to face the criticisms because what they start from gets exposed as seemingly nonsense. (SR texts will often admit this as if it is a virtue and then talk about Nature not having to follow common-sense.)

What I am referring to in (4) is really Einstein's thought experiment of when he imagined chasing a beam of light. In the Newtonian physics context – what is important is whether that light beam is emitted in the frame of A or B. As Einstein (as person B) chases a beam of light, is it emitted in A frame or B frame. Newtonian physics them different values. But Einstein in his thought experiment want to deem them equal, that indicates his thought experiment is fallacious from Newtonian physics perspective. i.e. the Einstein thought experiment is not consistent with Newtonian physics and the most logical conclusion is then that the thought experiment is wrong. However, SRists want to assume otherwise.

Going now by what Galileo set up by his relativity: a person X observing person Y travelling at constant velocity +v has by relativity that Y from his frame observes X moving with velocity v in the opposite direction, i.e. with velocity -v. That is Galileo's relativity. Now by Einstein-- he would seem to deny that a person could travel at velocity c. However, if we turn on a laser (or torch) then from our frame that light goes at c. By Galileo it would seem reasonable that a frame exists travelling with that light from it where we would appear to be moving at c in opposite direction. But Einstein seemingly wants to deny that and thus breaks Galileo' relativity, and that is a contradiction with what some SR texts say because they claim SR uses Galileo's relativity principle.

So conclusion: SRists are reduced to ignoring criticisms as their only real defence because their

theory does not make sense. Trying open discussion of the issues of criticisms is waste of time because it only exposes that the theory does not make sense and it becomes mere issue of faith by SRists that they want to believe the theory despite it not making sense, and they don't want to address issues so as – experiments can be interpreted by theories contrary to SR that do make sense.

Other issues that arise related to the conference included: James E Beichler pointing out that H T Flint published a unified field in science peer reviewed journals that has been ignored.

He says: "H.T. Flint published more than thirty- five articles in well-known peer-reviewed journals over a period of four decades, extending relativity to include electromagnetism and the quantum. Yet his work and that of his close associates is almost completely unknown today. Flint published his complete unified field theory in the 1960s, well before most quantum theorists even began thinking along the lines of unification. Strangely enough, Flint's unification theory has been completely forgotten by a scientific community that has become enamored enough with the idea of unification that it would accept the most outrageous and non-intuitive ideas as long as they are based on the quantum, but then Kaluza's five-dimensional unification of relativity and electromagnetism supposedly was not known until it was rediscovered by the super-string theorists, or so they claim." [5]

I personally think the reason its ignored is tied in with the mess made of SR, the SRists want to go into the denial about the evidence against SR and that spills over into them wanting to ignore Unified Field theory as well.

Einstein's maths

Going through Dionysios G. Raftopoulos analysis of what Einstein did. [6]

So, the way its being represented – Einstein wanted a transformation, to replace the Galilean Transformation in Physics, and wants that transformation based on the two hypotheses:

"1. All the Inertial frames of reference are equivalent for all the laws of Physics
(Principle of Relativity).
2. The speed of light in a vacuum is constant and has the same value c."

As Dionysios points out - The first hypotheses is really just the Principle of Relativity of the Uniform Translatory Motion, which is inherent in the Galilean Transformation.

So supposedly the change - is in the second hypothesis, which requires the constancy of the speed of light.

From my perspective these hypotheses are vague, but not dealing with that here, and just dealing with how they next used.

The second hypotheses is then taken as abandonment of the usual numerical addition and subtraction of collinear velocities, and which the Galilean Transformation is based.

To my way of thinking why abandon it, if kept it then it would lead to observers being in the same inertial frame. So abandoning it is really yet another hypotheses, when there is only supposed to be two. Hence why Einstein is vague – if he claims to be working from only two hypotheses, he seems to be adding extra hypotheses by subterfuge – I.e. without explicitly stating what he is doing.

Anyway, proceeding with what we are given-

As per Dionysios:

Following that, it is generally being taught that the development of the Special Relativity Theory and the derivation of the new Transformation proceeded as follows:

Consider that the frame S′ is moving to the positive side of the x frame S with speed v relative to S

As the new Transformation sought, must satisfy the Principle of Relativity in Kinematics (1st fundamental hypothesis), the Transformation ought to be **linear**, just as the Galilean one is also linear. Thus, it has to take the form:

$$X = a_1.X' + b_1.t' \qquad (1.1.15)$$
$$X' = a_2.X + b_2.t \qquad (1.1.16)$$

Where a_1, b_1, a_2, b_2 are constant, unknown coefficients remaining to be determined. Substituting $X' = 0$ in equation (1.1.16) we have:

$$0 = a_2.X + b_2.t \quad \text{(1.1.16a)}$$

which represents the movement of the beginning of S′ (zero of S′) relative to S. So, from this we get:

$$X/t = - b_2/a_2 \quad \text{(1.1.16b)}$$

But $X/t = v$, is the speed of the start of S′ (and of the entire S′ of course) relative to S; therefore:

$$b_2/a_2 = -v \quad (1.1.16c)$$

Similarly, by substituting $X = 0$ in (1.1.15) it becomes:

$$0 = a_1.X' + b_1.t' \quad \text{(1.1.15a)}$$

and represents the movement of the start of S (zero of S) relative to S′. From this we get:

$$X'/t' = - b_1/a_1$$

But $X'/t' = -v$, is the speed of the start of S (and of the entire S of course) relative to S′, therefore:

$$b_1/a_1 = v \quad (1.1.15c)$$

Thus, the Transformation (1.1.15) and (1.1.16) becomes:

$$X = a_1.X' + a_1.v.t' \quad (1.1.17)$$

$X' = a_2 .X - a_2 .v.t$ (1.1.18)

However, because of the symmetry, (as no frame is privileged*), equation (1.1.18) must result from (1.1.17) if in the latter we replace X′ with -X and t' with t, and with some simple calculations, it follows that: $a_1 = a_2 = a$

Thus, the Transformation (1.1.17) and (1.1.18) becomes:

$X = a.X' + a.v.t'$ (1.1.19)
$X' = a.X - a.v.t$ (1.1.20)

Consequently, in order to solve the problem, it is necessary and sufficient to determine the coefficient a .

So next - considering that a light signal moves towards the positive end of X in frame S, based on the 2nd fundamental assumption, it has to obey relative to the S the kinematics equation:

$X = c.t$ (1.1.21)

Moreover, the same light signal considered from the S′ frame, based also on the 2nd fundamental assumption, must obey relative to the S′ the kinematics equation:

$X' = c.t'$ (1.1.22)

Therefore, by placing the above values of X and X' in (1.1.19) and (1.1.20), we have:

$c.t = a.c.t' + a.v.t' \Rightarrow c.t = a.(c+v).t'$ (1.1.23)
$c.t' = a.c.t - a.v.t \Rightarrow c.t' = a.(c -v).t$ (1.1.24)

from which, by sidewise multiplication, we get:

$c^2 = a^2 . (c^2 -v^2)$

which can be rearranged to give:

$a = 1/(sqrt (1 - v^2 /c^2))$

This is the relativistic factor, and then with its use the Lorentz transformation equations can be obtained.

So, this bit of maths manipulation is supposed to fool people into believing the Lorentz transformation instead of the Galileo transformation.

Without the second hypotheses and just going by the first hypotheses – the first hypotheses being

part of Newtonian physics, and so going by Newtonian physics I get the equation:

$$c'\,^2 = a^2 \cdot (c^2 - v^2)$$ instead of $c^2 = a^2 \cdot (c^2 - v^2)$

And from:

$$c'\,^2 = a\,^2 \cdot (c^2 - v^2)$$

can set a = 1 and then $c'\,^2 = (c^2 - v^2)$

This c' is the two-way speed of light (in vacuum) and it varies. - In the Newtonian physics context it is allowed to vary!

What can confuse things is that in the derivation of $c^2 = a^2 \cdot (c^2 - v^2)$ it was two-way speed of light involved, while Galileo transformation is not based upon that, but instead upon one-way light-speed.

Now lets look through the steps:

Up to equations (1.1.19) and (1.1.20) its is fine:

$$X = a.X' + a.v.t' \text{ (1.1.19)}$$
$$X' = a.X - a.v.t \text{ (1.1.20)}$$

Equation (1.1.21) is also OK:

$$X = c.\,t \text{ (1.1.21)}$$

It is the next equation that is the issue, it should be:

$$X' = c'.t' \text{ (1.1.22a)} \quad \text{and not} \quad X' = c.t'$$

Based on the second hypotheses this c' = c, then the equation becomes:
$$X' = c.t' \text{ (1.1.22).}$$

So the fault I find is that – it is not explicitly sated where the second hypotheses is used.

Where it is used – is that (1.1.22) is used instead of (1.1.22a).

So if we proceed with using (1.1.22) the next step that Newtonian physics requires us to make is to set t =t' , what is called Newtonian universal time – i.e. clocks are assumed to operate at the same rate.

What the replacement of (1.1.22a) by (1.1.22) entails is the addition of another hypotheses – that the clocks don't go at the same rate.

Going by Newtonian physics we have that t=t' and this gives us equation:

$\mathbf{X'} = c'.t$ (1.1.22b) instead of (1.1.22)

And from that we then get $c'^2 = (c^2 - v^2)$ instead of $a = 1/(sqrt(1 - v^2/c^2))$.

i.e. Newtonian physics is recovered from the maths.

It was just maths manipulation by Einstein hiding Newtonian physics.

The issue becomes whether to go by $c'^2 = (c^2 - v^2)$ or $a = 1/(sqrt(1 - v^2/c^2))$.
And when we look at the experimental evidence there isn't any reason. It is just that experimental evidence is now being interpreted by SR believers in the way that the maths used is
$a = 1/(sqrt(1 - v^2/c^2))$.

i.e. it is just maths manipulation to hide what was otherwise Newtonian physics.

As Dionysios sums up the maths of the Lorentz transformation in the way that Einstein uses it:
"This is the Lorentz Transformation on which Einstein based his entire Special Relativity Theory, with all its known mythological and particularly contradictory conclusions about lagging clocks (… only lagging), contracting rulers (…only contracting), increasing masses (…only increasing), astronauts ageing slower (…only slower) than their twin brother, all these, let it be said, due only to uniform translatory motion, which however **is RELATIVE (!)**, the limited nature of the speed of light etc. And, last but not least, to top-off all these myths, the creation of that **monstrosity** so called "Space-time"[…].On all the above, let me, straight away, raise **two basic** objections:

A. I believe that the reasoning that led Einstein to the analytical derivation of the Lorentz Transformation contains **an unacceptable logical leap,** a proposal that not only has not been proven, but has rather, literally, in true magician style, literally "popped-out from the hat"

B. The equations that led to (1.1.26) and (1.1.27), characterized by some typical "Sneaky Stock Exchange Accounting Practice"* (profits are profits and losses are… profits too), contain a well hidden but, nevertheless, **enormous fundamental error**."

Uncertainty turned back into classical physics

This part is inspired by James E Beichler lecture from the physics conference, although not following his maths . It is possible to undo all of the confusion caused by Heisenberg's uncertainty principle and return things back to a classical (a.k.a Newtonian) physics way of looking at things.

Heisenberg created his uncertainty relation by a thought experiment, which makes it similar to Einstein's special relativity (SR) – where Einstein claims thought experiment formulation for his theory.

A wiki article at 3 Sept 2012 has the following to say [7] :

"This thought experiment was formulated to help in introducing Heisenberg's Uncertainty Principle,

which stands as one of the pillars of modern physics and as a theory that has been tested and confirmed countless times."

So, Heisenberg's uncertainty principle formed by thought experiment like I said. Now like Einstein's thought experiment for SR it requires that experiments be interpreted by the conditions of that thought experiment So like Einstein's SR is demanding a subjective interpretation. Thus when claiming that tested and confirmed by experiments is meaning only that experiments can be interpreted that way.

Given that experiments can be interpreted by Heisenberg uncertainty, I want to show that experiments can still be interpreted the old way by classical (Newtonian) physics. In same way that experiments interpreted by Einstein SR way can still be interpreted by Newtonian physics.

The wiki article continues:

"That being said, the thought experiment has the somewhat unusual characteristic of attacking the premises under which it was constructed (Reductio ad absurdum) , or at least of being involved in the development of an area of physics, quantum mechanics, that redefined the terms under which the original thought experiment was conceived."

In other words – the construction of the thought experiment was nonsense, same as how Einstein dealt with thought experiment for SR.

wiki continues: "Quantum mechanics questions whether electrons actually have a determinate position before they are disturbed by the measurement that one might try to use to establish that they have such determinate positions."

In other words it becomes a subjective issue as to whether one wants to analyse experiments through the belief that the electron has a determinate position or not. And of course quantum mechanics due to Heisenberg wants you to analyse experiments from point-of-view that they don't have determinate position before measurement. But that being the point-of-view that Heisenberg tries to impose does not mean that the old way as per classical physics no longer works.

Wiki: "Under a more thorough quantum mechanical analysis, an electron has some probability of showing up at any point in the universe, but the probability that it will be far from where one might expect it to be becomes very low for places at great distances from the neighborhood in which it was originally found. In other words, the "position" of an electron can only be stated in terms of a probability distribution, and predictions of where it will move to can also only be given in terms of a probability distribution."

All of that is just based on interpreting experiment by the way that Heisenberg is trying to impose. The wiki article – interesting enough still wants "citation" for this information – it still want some authority figure to say that is the way things are. So like Einstein's SR there is a lot of vagueness and ambiguity created by this imposing a different way of looking at things from how things were in Newtonian physics.

Now will look at the maths and try to make sense of it and connect it back into being classical physics.

The Heisenberg Uncertainty relations are:

p. x ≥ ℏ /2

and

E.t ≥ ℏ /2

where ℏ = h/(2 pi)

and h = Planck constant

in the above equations it is uncertainty in measurements of momentum (p), position (x), energy (E) and time (t), usually a delta is used in front of these things to represent that.

Energy of a photon is E = hf where f = frequency of the photon

or if using angular frequency w = (2 pi) f

then E = ℏ w

Now the groundwork has been set for this, for the process of getting back to classical physics, start with equation:

p. x ≥ ℏ /2

multiply both sides by w

p.x.w ≥ ℏ w/2

if x is really angular wavelength then x. w = c, so have

p.c ≥ ℏ w/2

by E= ℏ w this is

p.c ≥ E/2

Now Einstein got his E=mc^2 by considering two photons being emitted from a source one in one direction and the other in opposite direction so their momentums add to being zero

p – p = 0

if allow photons to have effective mass m can write this as:

p = mc

for kinetic energy this would be $(1/2)mc^2$

so for two photons of kinetic energy $(1/2)mc^2$ the total energy is E= mc^2, put this into p.c ≥ E/2,

left hand side is mc.c = mc^2 gives:

mc^2 > (½) mc^2

thus E =mc^2 is hidden in the Heisenberg uncertainty relation.

The Heisenberg uncertainty relation - if we multiply both sides by w reduces itself to an equality of E = mc^2 instead of inequality.

i.e. uncertainty removed and we are back to classical physics by use of w which acts like a hidden variable.

Similar can be done with the other uncertainty relation.

E.t ≥ ℏ /2

multiply both sides by w = (2 pi) f

E. t. w ≥ ℏ w/2

treating t .w = 1 if t = angular time =1/w then left hand side = E

right hand side = hf/2 = E/2

so equation is E > E/2

so really its E =mc^2 = hf

So - dispose of how Heisenberg wants to look at things through his viewpoint and we can reduce the maths back to how classical physics is handling things.

Einstein's messed up way of looking at things inspired Heisenberg to make his own messed up way.

Heisenberg's thought experiment was just about creating an overly complicated way of looking at things, which like Einstein's thought experiment also creating an overly complicated way of looking

at things – there was no need of.

Einstein makes the mess in his direction and Heisenberg makes a mess in a different direction, and we get two theories that don't seem to be able to combine. But return everything back to classical physics from which they initially started and we have a unified theory in classical physics (as I pointed out many times before with – Boscovich's theory).

Classical wave-particle duality

The Wave Theory of Christian Huygens in 1678 , where light has speed (in vacuum) c
(I take as c with respect to emitting source of an inertial frame) gives rise to the equation:

refractive index $n = \sin \theta_i / \sin \theta_r = \lambda_i / \lambda_r$

Snell's law, where λ_i is wavelength of the incident wave and λ_r the wavelength of the refracted wave. (θ_i and θ_r are angles with respect to the normal for incident and refraction.)

Since, for any wave of frequency f , $\lambda f = c$ and since the frequency of the wave
does not change on refraction, we can divide λ_i by t and λ_r by t, giving us c_i and c_r respectively, thus:

$n = \lambda_i / \lambda_r = c_i / c_r$

And we can rearrange to:

$n\ c_r = c_i$

If we assign to light an effective mass m and multiply both sides by m this gives:

$m\ n\ c_r = m\ c_i$

In terms of momentum, this is momentum of the light before and after refraction.

And can think of this as a particle with momentum. Indeed this was what Newton's corpuscular theory was- thinking of momentum of particles in this way. Except Newton thought that light was faster in a medium than it was in vacuum. Correcting that mistake for the value of what n is really observed to be then by these equations we have the classical physics theory of wave-particle duality.

The usual way of thinking has been to reject Newtonian emission theory because it thought light travelled faster in medium than in vacuum. But really one has the same equations for wave model and particle model and its minor issue then to say let n be as it is really measured to be rather than what Newton took an erroneous guess to what it would be.

In this way we have a modified Newtonian particle emission theory being combined with the Huygen wave theory giving us wave-particle duality i.e. both wave mathematical model and a particle mathematical model being equally valid descriptions.

Conclusions

So we see a terrible mess has been made of modern physics. These were merely a few of the pieces that I have managed to put together from a few of the physics lectures. There were a great deal more lectures such as by:

Jeremy Dunning-Davies (a lecturer in thermodynamics) and David Sands point out that modern thermodynamics does not make sense having been built on obsolete historical ideas in science that are no longer deemed valid.

C Y Lo lecture on "Rectification of general relativity, experimental verifications, distortions of the Wheeler School and errors".

Lectures by Hurtak, Kostro, Grantham and many others. All the pieces fit together into a very interesting jigsaw picture, which I hope to do in due course.

References

[1] THE PHYSICS OF REALITY: SPACE, TIME, MATTER, COSMOS Joint Meeting: VIGIER VIII - BCS   2012 http://www.mindspring.com/~cerebroscopic/index8.html

[2] Home Page of: Miles F. Osmaston, MA (Oxon) http://osmaston.org.uk/#thiswebsite

[3] Time and the Metaphysics of Relativity By W.L. Craig p 66

[4] http://www.dgraftopoulos.eu/About_Me.html

[5] http://apps3.aps.org/aps/meetings/april09/presentations/H14-3.pdf

[6] Dionysios G. Raftopoulos THE THEORY OF THE HARMONICITY OF THE FIELD OF LIGHT, p 45-49 http://www.dgraftopoulos.eu/Docs/raftopbook_en.pdf

[7] http://en.wikipedia.org/wiki/Heisenberg%27s_microscope 3 Sept 2012

[8] See for instance: Part I Special Relativity, G. W. Gibbons, February 14, 2008 p 7 -8- which almost gets but misses this point that we can construct classical wave-particle duality.

http://www.damtp.cam.ac.uk/research/gr/members/gibbons/gwgPartI_SpecialRelativity2010.pdf

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