

Einstein used to destroy common sense in physics

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There are many people who talk nonsense in physics and realise even to themselves that they talk nonsense, but then make appeals to Einstein that the nonsense should be accepted regardless. Two examples will be looked at.

David Lyth, Professor Emeritus of Physics, Lancaster University proudly tells us that Einstein's general theory of relativity killed off common-sense physics. [1] There are others such as Cormac O'Raiheartaigh who say similar. [2]

Getting to the relevant part, David Lyth says: "Einstein's starting point for general relativity was his theory of special relativity, published in 1905. This explained how to formulate the laws of physics in the absence of gravity. At the centre of both theories is a description of space and time that is different from the one that common sense would suggest."

He goes on to say: "The theories explain how to interpret motion between different places that are moving at constant speeds relative to each other – rather than relative to some sort of absolute ether (as Newton had assumed)."

Like many of his kind, he does not go into enough detail about the aether and how later Einstein returned to the idea.

Einstein says [3]: "in 1905 I held the opinion, that one was forced to abandon the concept of aether in Physics altogether. This judgement, however, was too radical, as we shall see below, when considering General Relativity. In fact, it remains possible to assume the existence of a space-filling medium for which its state can be taken as that of the electromagnetic fields (as well then of matter) ..."

Lyth continues: "While the laws of physics are universal, it says, different viewers will see the timing of events differently depending on how fast they are travelling. An event that would seem to take 1000 years when viewed from Earth may seem to take just a second for someone in a spacecraft travelling at great speed. At the centre of Einstein's theories is the fact that the speed of light is independent of the motion of the observer who is measuring the speed. This is strange, because common sense suggests that if you sit in your car alongside a railroad track, a train passing by will seem to be moving much faster than if you followed it in the same direction. However, if you instead sit and watch a light beam go by, it would move equally fast regardless of whether you were following it or not – a clear indication that something is wrong with common sense."

And he gets to this problem with common sense by the same method of not explaining in enough detail what he means by: “if you instead sit and watch a light beam go by, it would move equally fast regardless of whether you were following it or not...” Because not saying whether measuring that lightspeed relative to a stationary point or to a moving point, and if there is any difference. So, if you “sit and watch a light beam go by” you could measure it relative to a stationary point or relative to a point that was moving relative to you. I think it ambiguities such as this that have led to confusion in relativity, a confusion that leads people like Lyth to abandon common sense.

He then starts talking about such things as relativity confirmed by experiments; but I say his false understandings are not really confirmed by experiment.

He ends up saying: “Just like the theories of relativity, quantum mechanics is counter intuitive. Whether it is possible to unite the two remains to be seen but it is unlikely to reintroduce common sense into physics.”

Thus, from Lyth we have his misunderstandings destroying common sense in all of physics for him.

So, next let’s look at what Cormac O’Raifeartaigh has to say. Cormac O’Raifeartaigh lectures in physics at Waterford Institute of Technology and is a fellow of the Royal Astronomical Society.

Getting to the relevant part he says: “Albert Einstein’s starting point for his theory was his insistence that the laws of physics must be the same for observers at rest or travelling at constant speed. Applying this seemingly reasonable principle to the phenomenon of electromagnetism, he arrived at a much less reasonable postulate: namely, that the speed of light in a vacuum (the speed at which an electromagnetic wave travels) must be the same for all, irrespective of the motion of source or observer.”

Same as Lyth he has the ambiguity of lightspeed being measured relative to what (?) - stationary point or moving point; which is not clarified any when he goes onto say:

“How could the speed of light be the same for all? If a passenger on a moving train shines a torch towards the end of the carriage, surely the speed of the light emitted by the torch will be measured as one value by the passenger but as a different value by an observer at a station passed by the train? Not so, according to Einstein: observers at “ground control” would measure the speed of the light as the same as passengers on the train.”

It being unaddressed whether the “observers at “ground control”” and “passengers on the train” – are they measuring relative to a point that is stationary with respect to them or moving with respect to them; and if there is any difference in such measurements.

He continues by talking of such things as experimental support of relativity, but once again his misunderstandings are not really being supported by such things. After which he gets to say:

“Still, relativity remains a common target for science sceptics. Most professional physicists routinely receive a great number of “refutations” from diverse commentators. Indeed, relativity scepticism is so common that most science journals and magazines have long since

stopped accepting submissions on the topic, not least because such articles usually ignore the vast body of supporting evidence for the theory.”

So, it is an admission by him that science journals are censoring discussion on this topic.

He then says: “My own view is that relativity scepticism presents an interesting case of a “clean” mistrust of science.”

And the “mistrust” as far as I am concerned is the “mistrust” that he and others like him are accurately talking about things in relativity.

Anyway, he does not see it that way and ends by saying:

“After all, the predictions of relativity are not in conflict with religious dogma, political worldviews or vested interests (unlike evolution, climate science or tobacco science). I suspect that the scepticism stems from the fact that relativity makes predictions that are apparently in conflict with our everyday “common sense” experience of the world. As Einstein himself once remarked, “Common sense is a collection of prejudices acquired by age 18”.”

It is problematic that Einstein said that; there seems a lot of things supposedly said by Einstein that comes into question as to whether he really said it or not. Anyway, for this supposed quote from Einstein that “Common sense is a collection of prejudices acquired by age 18”.” Shelby Rogers [4] says: “This one is highly debated among Einstein fans. It's been traced back to a three-part series about the physicist done by Lincoln Barrett for Harper's Magazine. In the interview, Barrett notes "But as Einstein has pointed out, common sense is actually nothing more than a deposit of prejudices laid down in the mind prior to the age of eighteen." Was this a paraphrase of something larger? Possibly. Could it just be the musings of Barrett inspired by his time with Einstein? Also probable.”

So, this appeal to Einstein for abandoning/destroying common sense might not even be correct. But we are still left with these types of people imposing rejection of common sense upon us, by what seems as really their misunderstandings of relativity. They realise even to themselves that what they say does not make sense, but then expect it to be believed regardless. In this way physics has been messed up.

References

[1] How Einstein’s general theory of relativity killed off common-sense physics, November 24, 2015 1.55pm GMT, David Lyth <https://theconversation.com/how-einsteins-general-theory-of-relativity-killed-off-common-sense-physics-50042>

[2] Einstein’s theory of relativity clashes with common sense. The first step to grasping Einstein’s theories is to forget about our everyday experience of the world, Thu, Oct 30, 2014, 01:00 , Cormac O’Raifeartaigh <https://www.irishtimes.com/news/science/einstein-s-theory-of-relativity-clashes-with-common-sense-1.1972774>

[3] A F Kracklauer translation of papers previously not translated from German into English: Einstein in English volume II: 1914-1923, p 755 circa 1920. See also: Boscovich and aether talk presented in 2018, Roger J. Anderton

[4] 13 Inspiring Einstein Quotes Never Actually Said by Einstein, just in time for National Geographic's new show "Genius," we put together some famous Einstein quotes that the physicist never really said. By Shelby Rogers April 26th, 2017

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