The Objectivity Of Relativity

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There are some mad people out there. They call themselves non-relativists, and some of them even call themselves critics of relativity!

In the past we have tended to shun them and have managed very successfully to silence them completely by keeping their silly arguments out of all mainstream physics publications, saving them at the same time much unnecessary embarrassment. Our success in this respect has not been limited to America and England, but can also be seen in many other countries, including most of Einstein's earlier "home" countries (he got around).

One such country that we are particularly proud of is Germany. Our successes here go back to the early nineteen twenties. Do you realize what that means? Think about it. The modern Federal Republic of Germany has only existed since 1949. That means that these foolish critics have never had an opportunity to mislead our German public at all. Einstein would certainly applaud in his grave.

You know what the worst thing is? These critics have somehow got it into their heads that they are the ones who take an objective position in physics, and not us. Such infamy never used to matter, of course, because they were unable to get their ideas published anyway. Until the Internet came. And now their views - and challenges! - are suddenly popping up all over the place.

These people not only have the cheek to claim that they have counter-arguments for all of our relativistic findings - who is this GOM fellow anyway? - but they even reject one of the best and most famous laws of physics discovered by Einstein and Lorentz: time dilation.

That's why I've decided to discard our previous policy of ignoring them, to make it clear to everyone that - and why - we relativists are the only objective authority in the world of physics today.

So taking up this point in the context of the twin(s) paradox I will now make very clear just who is objective here and who is not!

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As we all know, this so-called paradox ("so-called" because it's not really a paradox) describes the journey of one of two twin brothers in a spaceship from the earth to a distant star and then back to the earth again. Upon returning he is found to have aged less than his twin brother, who had remained on the earth.

The reason why, of course, is very clear to all of us: the travelling twin had moved faster on his space journey than his twin brother, and the faster you move - as the relativistic factor in time dilation has it - the slower you age. No paradox here. And what could be simpler? Yet these critics and non-relativists deny it.

At least they are objective enough to admit that they would concede the point if we did send a twin off and bring him back again and he was younger. This, of course, is easier said than done, otherwise we would long since have quashed all their doubts. Fortunately we can carry out an experiment instead - Thought Experiment 1.

So imagine we send our twin off and bring him back again and he is now younger. Both sides would now agree that time dilation exists. The critics indeed might now even think that, in agreeing with us, they are just as objective as we are. But things are not quite that simple.

This can be shown with a second thought experiment, Thought Experiment 2. This is the same as the one above, only now the travelling twin is not younger (upon returning) but is older! What would these non-relativists say to that? Fickle and subjective as they are, they would certainly jump to the opposite conclusion to that of Thought Experiment 1, namely that the faster twin does not stay younger but gets older. That's what happens when you have no objective principles to fall back on. What you have just thought-experimented a few moments ago is suddenly worthless and is discarded and you are now even prepared to claim the exact opposite.

Here we can see the true value of our theory of relativity. We may be a little surprised by this unexpected result, but we are not abashed and the answer to the problem quickly occurs to us, provided we remain objective. We know, after all, that the faster-travelling twin stays younger. And we know that the twin on the earth is younger than his brother. And now things are suddenly crystal clear! It was not the twin in the spacecraft who had travelled off and returned again, but the twin on the planet, together with the earth and the rest of the universe. We owe this discovery solely to a combination of relativity and objectivity!

But let's not leave it at that. We can now put the last nail in the coffin of these non-relativists by considering Thought Experiment 3. This separates the physman from the layman. Imagine now that the supposedly travelling twin returns to the earth - and there is no age difference between the two. What does the baffled and unprincipled non-relativist say now?

You know it. Having learned nothing from past experience - as though our thought experiments had never taken place at all! - he quickly abandons the objectivity he thought he had in common with us after our first thought experiment and returns to his

hopeless starting point. Thought-experiment 3 shows, he would claim, that there is no time dilation at all and that we relativists were wrong from the start.

But we know better. The answer, after all, is again obvious. Both the travelling twin and the earthbound twin - together with the earth and the rest of the universe - have clearly moved away from each other, and then back again, at the same speed.

Oh! What would we do without Einstein's relativity and our objectivity.

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