EINSTEIN'S "TRAIN" THOUGHT-EXPERIMENT
ITSELF DISPROVES THE THEORY OF RELATIVITY

by

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IMAGINE an extremely high speed train moving in a straight line at speed **v** metres per second with respect to the ground. Inside the train a lady stands exactly at its mid-point. The length of the train, as measured when it is at rest at the station, is *exactly* **L** metres. Outside the train a man stands on a station platform, watching the train speed by.

As the train passes the man, two lightning bolts strike either end of the train, leaving burn marks on the track, and on the front end of the train's engine and the rear end of its caboose, as evidence.

Let's assume that the man *sees* both the lightning bolts strike simultaneously. Let's also assume that later the man measures the distance from where he was standing to each of the two burn marks on the track, and finds that the distances of each of two marks from where he was standing to be exactly the same.

The man, therefore, must conclude that the two flashes of lightning *struck* the track simultaneously. Since according to the Theory of Relativity the speed of light in all directions is the same, and independent of the motion of the source or the observer, in the man's frame the two flashes must take exactly the same amount of time to travel the identical distances from each of the burn marks on the track to where the man happened to be standing.

Let's stop right here, and think about it a little. *The above assumptions themselves are enough to disprove the Theory of Relativity!*

According to the Theory of Relativity, when the train is moving relative to the man at speed **v** metres/second, the man ought to see the train' length contracted to $\mathbf{L' = L \quad \sqrt{(1 - v^2/c^2)}}$ metres. And obviously $\mathbf{L' < L}$ (because $\mathbf{\sqrt{(1 - v^2/c^2)}}$ is less than **1**).

Since we concluded that in the man's frame both the lightning bolts struck simultaneously, the burn marks made by the bolts on the tracks cannot be *more* than **L'** metres apart in *anyone's* frame — the man's *or* the lady's.

And we also know that in the man's frame, the burn marks on the track cannot be *less* than **L'** metres apart either, since the strikes hit the front end of the engine and the rear end of the caboose, and the train's length when at rest is *exactly* **L** metres.

Let the train now come back to rest at the station. Let the man and the lady measure the distance between the burn marks on the track, and also the distance between the burn marks on the train. By the above assumptions and arguments, they will *both* have to agree that the burn marks on the track are *exactly* $\mathbf{L'}$ metres apart, and those on the train are *exactly* $\mathbf{L}$ metres apart, where clearly $\mathbf{L' < L}$.

But this proves that the train must have been moving and the track stationary — in an *absolute* sense! Note that it was the *train* which must have contracted in length when it was in motion relative to the track at speed $\mathbf{v}$ metres/second, while *no change* took place in the distance between the burn marks on the track, whether the train and the track were in motion relative to one another, or not.

However, according to the Theory of Relativity there should be *no such thing as movement in an absolute sense!* Thus findings of a distance of $\mathbf{L}$ metres between the burn marks on the train and a distance of $\mathbf{L' = L \sqrt{(1 - v^2/c^2)}}$ metres between the burn marks on the track would contradict the Theory of Relativity.

But suppose that by some strange quirk of fate the findings were reversed, and that after the train came back to a rest at the station, the distance between the burn marks on the track was actually found to be *greater* than the distance between the burn marks on the train. That *too* would disprove the Theory of Relativity, for then it could be deduced, from the length-contraction notions of the Theory of Relativity, that it was the *track* that had been moving earlier, and not the train!

Indeed, no matter *what* the separation distances between the burn marks on the track and those on the train, if it is found after the train comes to a rest at the station that the separation distances are *different* — one of them greater than the other, *regardless of which* is the greater and which the lesser — we ought to be able to tell by that fact alone which was moving in an absolute sense: the train or the track. This would contradict the Theory of Relativity.

And on the other hand, if after the train comes back to a stop at the station, the burn marks on the track are found to be exactly the *same* distance apart as the burn marks on the train, there cannot have been any length contraction of the train *or* of the track due to their relative movement! This *too* would contradict the Theory of Relativity.

Thus the Theory of Relativity can't be correct no matter *what* the findings: whether the separation distance between the burn marks on the train is found to be *different* from the separation distance between the burn marks on the track after the train comes back to a stop at the station, or whether the separation distance between the burn marks on the train is the *same* as the separation distance between the burn marks on the track after the train comes back to a stop at the station.

This proves that the Theory of Relativity is utterly inconsistent with *any* possible scenario along the above lines; and thus it must be inconsistent with logic.

Any comments? e-mail me.