

## REFUTATION OF SRT TIME DILATION

**Illustrative basis:** The Zoe + Jasper scenario to which this work refers – which scenario follows along the lines of Einstein’s train/light-clock thought experiment – can be found at Item (4) “Time dilation” at the following URL: <http://newt.phys.unsw.edu.au/einsteinlight/>

**Terminology:** In this work the term “perpendicular” is synonymous with the direction of the light/photon in Zoe’s light-clock and thus “perpendicular” to the motion of her car. Essentially it is what the reader might refer to as the Y-axis (as opposed to the X-axis along which the car travels).

### Refutation proper

At every stage of the Zoe + Jasper scenario the (supposed) diagonal light-path which Jasper witnesses derives its *perpendicular component* from the (primary) perpendicular light-path in Zoe’s light-clock: the two perpendiculars are in fact *coextensive*: indeed they are one and the same thing.

It is therefore vital to keep in mind the fact that the *perpendicular component* of such (supposed) diagonal will *at every stage* equal the perpendicular in Zoe’s light-clock; and accordingly, that such component will travel at  $c$ , for the perpendicular in Zoe’s light clock travels at  $c$ .

It is also vital to keep in mind the fact that because light always travels at  $c$ , such (supposed) diagonal will (also) travel at  $c$ .

But any diagonal that is allowed to travel no faster than the perpendicular from which it deviates, will exist necessarily at the *expense* of perpendicular speed: the *perpendicular component* of the (supposed) diagonal will (therefore) at every stage be less than the (primary) perpendicular upon which it is perpetually based, which means we shall have one photon with two different perpendicular magnitudes at the same time: an impossible scenario.

Conversely, if we allow the *perpendicular component* of the (supposed) diagonal to keep abreast of the (primary) perpendicular upon which it is perpetually based – which of course should be the case – the (supposed) resulting diagonal will of necessity travel faster than  $c$  simply by virtue of the fact that it will constitute the hypotenuse of a right-angle triangle, one side of which – its *perpendicular component* – is necessarily already travelling at  $c$ . This is of course also an impossible scenario: light never travels faster than  $c$ .

It is clear then that the ‘common denominator’ responsible for the prohibition of both the above alternatives, is the fact that because light always travels at  $c$ , it can have no other-axis components: it is stand-alone and linearly-absolute.

## **Refutation of SRT Time Dilation Theory (Cont.)**

Einstein's error is therefore twofold:

1. He has assumed up front there will in fact be a diagonal produced by an X and Y component, in so doing taking his eye of his own ball game in contradicting the trigonometric implications of his own assertion that light always travels at  $c$ .
2. He has (retrospectively) force-fit the parameters involved after the fact and thus has framed his premise as argument.

And so he has distracted everyone at the outset with a (waywardly-) presumed diagonal light-path, at the expense of a proper focus on the perpendicular which would have to create it (if it could at all be created).

Physicists are not magicians: if we are to postulate anything as apparently-magical as time dilation, we must first of all show a valid mechanism by which each and every component in the picture comes into being in the first place: we must submit to the constraints of causality rather than simply declare our end result and reverse-engineer the thing after the fact.

Einstein has bypassed this discipline, and no-one has noticed.

Until now.

### **In closing ...**

A scientific analysis does not frame its premise as argument: the trigonometry of the matter under consideration – coupled together with the constraints of natural law – tells us up front there can be no (resultant) diagonal light-path formed at all.

We are therefore forced to conclude that the *trajectory* of light is never affected by the velocity of its source and that, with specific regard to the illustration to which this work refers, if Zoe were travelling fast enough in her car, the opposing (top) mirror would move along with her quick enough so that the light heading toward it from the bottom mirror would actually miss it.

SRT Time Dilation is thus null and void. Any experimental results to the contrary will necessarily be explainable by Lorentzian Relativity or other phenomena.

**John Lawrence Duval**  
**Melbourne**  
**Australia**  
[JLDUVAL25@HOTMAIL.COM](mailto:JLDUVAL25@HOTMAIL.COM)

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