

# relativity of simultaneity – real or perceived?

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  - *Date:* 13 May 2005 19:16:33 –0700
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Does 'relativity of simultaneity' mean that an event which is simultaneous in one frame of reference, need not be simultaneous in another frame? Or do the two frames just APPEAR to have a different timing of events?

In the common example of a fast train struck by lightning at both ends, simultaneously from the point of view of the embankment, and an observer on the train sees the lightning at different times, is that not merely a result of his \*perception\* of the events? If he were a scientist, could he not calculate the time taken for the light to travel and realise that the lightning did indeed strike at the same time?

If two photons pass opposite ends of a box at the same time as measured by an observer at rest wrt to the box, could they ever be correctly calculated to be in the same positions at some point in time to any observer at any speed? Or would they be correctly calculated to pass the ends of the box at different times by that other observer?

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- *Follow-Ups:*
    - ◆ **Re: relativity of simultaneity – real or perceived?**  
◇ *From:* Ben Rudiak–Gould
    - ◆ **Re: relativity of simultaneity – real or perceived?**  
◇ *From:* Benno Muilwyk
    - ◆ **Re: relativity of simultaneity – real or perceived?**  
◇ *From:* kenseto
    - ◆ **Re: relativity of simultaneity – real or perceived?**  
◇ *From:* Daryl McCullough
    - ◆ **Re: relativity of simultaneity – real or perceived?**  
◇ *From:* Dirk Van de moortel
    - ◆ **Re: relativity of simultaneity – real or perceived?**  
◇ *From:* N:dlzc D:aol T:com \(\dlzc\)
    - ◆ **Re: relativity of simultaneity – real or perceived?**  
◇ *From:* Paul Stowe

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