

Time Dilation reduces the Speed of moving Objects

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- *From:* Peter Riedt <riedt1@xxxxxxxxxxx>
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When Lorentz invented time dilation as part of his contraction hypothesis he did so to allow the speed of light to remain constant. He realized that if the length of a moving object contracted, its time had to slow down or the speed of light would not be constant. Time dilation restores the speed of light to 300,000km/sec by the reciprocal factor of the length contraction of the moving object.

Example 1:

An spaceship of 100m length traveling with a speed of 200,000km/sec would according to the Lorentz transformation ($\gamma = \sqrt{1 - 200,000\text{km/sec}^2 / 300,000\text{km/sec}^2} = 0.74535599$) shrink to 74.535599m ($100 * \gamma$). At rest, light will cover 100m in $100\text{m} / 300,000,000\text{m/sec} = 0.000000333333\text{sec}$. To cover 74.535599m in 0.000000333333 seconds, the speed of light would only be $223,607,021\text{m/sec}$ ($74.535599\text{m} / 0.000000333333\text{sec}$). However, the time dilation factor of 1.3416408 ($1/\gamma$) restores the speed of light to $300,000,000\text{m/sec}$ ($223,607,021\text{m/sec} * 1.3416408$). With the artifice of time dilation the speed of light remains constant.

Lorentz however considered only the effect of time dilation on the speed of light, not the object. This oversight renders time dilation invalid. While it is legitimate to apply double standards in politics, in physics it is not.

Example 2:

The spaceship in example 1 will travel 100,000,000km in 500 seconds without time dilation but time dilation expands the 500 seconds to 670.82 seconds ($500\text{sec} * \gamma = 500\text{sec} * 1.3416408 = 670.82\text{sec}$). As we now have 670.82secs instead of 500secs and to maintain the relationship $v=d/t$, the speed of 200,000km/sec must be reduced to $149,071\text{km/sec}$ ($100,000,000\text{km} / 670.82\text{sec} = 149,071\text{km/sec}$).

Lorentz should not have messed with the relationships $v=d/t$.

Peter Riedt

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