Space - Time

The concept of spacetime in which the faster an object moves through time, the slower items within that object move, is difficult to comprehend.

This is because space and time are not quite as has been imagined by people.

Space, the distance between any two points, actually doesn't exist. There is only one point of space so we cannot say that space exists and so we cannot compute how long it will take to travel between any two points as they would be the same unique point.

The reason that space, and thus time, seems to exist is because of collective agreement. We think that both space and time exist with such conviction that we invent the illusion.

However, within our illusion, it was asked why, the faster an object (a train) moves the slower things (people) within that object appear to move, we could say that this would be to keep spacetime in equilibrium. At the speed of light, objects within the carriage would appear to be at a standstill and, certainly, this would conform to the standard perception of space time but, at the other extreme, if the train used in the image was at a standstill we would assume that people in the carriages would be moving infinitely fast.

We may not be able actually to observe a train moving at the speed of light, so we cannot verify the theory, but we can easily observe a train at a halt in a station and we notice that people do not move infinitely quickly, so that theory does not seem to work.

Can we provide a logical explanation for this concept concerning spacetime and the train theory?

As we have said, in reality, the concept is meaningless as space and time do not exist, but we would like to shed some clarity on the conundrum as far as it is understood by standard physics.

Now, if a vehicle, the train in this example, increases its velocity, in fact the truth that space does not exist begins to come into play, which was why we mentioned it so, as it goes faster and faster towards light speed, what occurs is that the truth that two points of space are actually the same, one point, comes into increased evidence so that, at the speed of light, the two points become one and space ceases to exist (which it never did anyway except by illusion).

Thus, at the speed of light, as the two points of space become one there cannot be any movement.

You cannot move if your start and destination points are the same point.

It has been supposed that the process of speeding up towards light speed would cause movement, within the carriage, gradually to slow down, but this is a false assumption. In

fact, the movement never actually occurs but, if it were possible to measure the movement in a carriage as it sped up, there would not be a gradual slowing down. Movement would be normal until reaching the speed of light, at which point movement would stop.

It has just been assumed that speed of movement would slow down until it stopped at the speed of light but, as we mentioned, if one traces the process in reverse, people would speed up as the train reduced speed until at a standstill the people in the carriage would be moving infinitely fast which clearly doesn't happen.

So, to recapitulate.

If we accept the incorrect collective wisdom about spacetime, no difference would be noticed of the people in a carriage until the train reached the speed of light, at which point the start and end points of the journey would be the same point and thus movement of the passengers would cease.

The moment the train reduced speed to below the speed of light, the passengers would move at the same speed they would have if the train was at a stand still.