The Nature of Motion

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The theory of relativity's concept o motion suggests that every observer must assume that his own frame of reference is always at rest; therefore, he must ascertain the state of the motion of all other entities in relation to his own frame of reference. In this article, we have shown that for every entity its own frame of reference actually behaves as if it is in the state of the absolute rest. Therefore, the motion of an entity has to be ascertained in relation to its own frame of reference. Thus, we have made only a slight but very significant change in the proposal of the theory of relativity. Our proposal is based on actual observations of how things behave.

Motion is generally defined as a change in the position of an entity.

This is a layman's definition of motion, but this definition is incomplete because it does not specify any reference frame relative to which a change in the position of a body can be ascertained. However, nothing in the universe is in the state of absolute rest; therefore, we do not have any universal rest frame relative to which the motion of all the entities can be ascertained.

The theory of relativity suggests that in the absence of a universal rest frame, the state of the motion of an entity can be ascertained only in relation to the reference frame of the observer.

This is the first part of the proposal of the theory of relativity.

The theory of relativity then goes on say that every observer must assume that he is at the rest and rest of the universe is moving around him.
Thus, every observer must determine the state of the motion of all other entities assuming that his own frame of reference is at rest.

The theory of relativity suggests that the motion causes the length contraction and time dilation.

Theory of relativity also suggests that the motion also causes an increase in the mass of the entity.

According to the theory of relativity, the length of the entity contracts and the clocks of the entity in motion run slower. The theory of relativity also suggests that the mass of an entity in motion increases.

Suppose an observer is sitting in a moving car.

The theory of relativity suggests that everything outside the car contracts and time for all the entities runs slower because of the motion of the car, but everything remains the same inside the car. However, for the observer outside the car, everything outside the car remains the same, but the car and everything inside the car contracts. Similarly, the time for all the entities inside the car slows down.

The theory of relativity also suggests that the mass of an entity in motion increases. Obviously, for the observer sitting in the car, the mass of all the entities outside the car increases, but for the observer outside the car, nothing changes outside the car but the mass of all the entities inside the car increases.

Therefore, nothing changes for anyone and everything changes for everyone. According to the theory of relativity, the motion does not cause any real physical changes in the entity in motion.

The concept of motion of the theory of relativity creates many paradoxical situations. Physicists have found convenient solutions to these paradoxes, but the fact is that these are just scientifically untenable imaginary solutions of imaginary problems.

The theory of relativity suggests that not just motion but even the direction of motion changes the nature of physical reality.

In the theory of relativity, the direction of motion of an entity can manifest the past and the future of the entire world to the entity in motion!

Suppose a person is sitting on a chair on the Earth. According to the theory of relativity, an observer located in some distant part of the world can see all the past and future states of the person by merely moving towards/away from him.

Einstein vehemently opposed the quantum mechanical proposal that the particles in the quantum world do not have any predetermined value.

Obviously, the theory of relativity suggests that an entity always exists in all its possible states simultaneously. In other words, the theory of relativity has its own concept of superposition.

This proposal of also creates absurd paradoxical situations. It is possible for a person to travel to the past and kill his own grandfather before the conception of his father or mother, which prevents the time traveler's existence. If the time traveller does not even exist then, he cannot travel to the past and kill his grandfather.

This is the famous grandfather paradox.

If the reader has studied physics even at the school level then, he must have pondered over an interesting puzzle.

Suppose a bee is flying at a velocity of 10 km/hr. from the front to the rear end of a car moving at a velocity of 50 km/hour.

What is the velocity and direction of motion of the bee?

We can assure the readers that physics cannot resolve this problem. The theory of relativity is caught in its own web of paradoxes and no other theory even discusses the problem of motion.

The bee can fly in one direction for one observer and another direction for another observer.

We must mention here that it has been observed in the experiments that an electron may actually move in one direction for one observer and in the opposite direction for another observer.

Obviously, the theory of relativity fails to explain even the nature of motion.

The theory of relativity differs with the classical physics even on the addition of velocities.

Suppose a train is moving at the velocity *v*.

A person is walking inside the train at velocity *w* in the direction of the motion of the train. Suppose another person is walking at the same velocity w in the opposite direction.

In classical physics, the velocity of these persons will be v+w in the first case and v-w in the later case. However, in the theory of relativity, v+w = v-w.

Einstein uses the experiment conducted by Fizeau to prove that v+w = v-w.

However, Fizeau experiment only shows that the direction and velocity of the motion of the medium of transmission of light do not affect the velocity of light. It has no relevance to the above proposal of the theory of relativity.

Obviously, the theory of relativity's observations are not based on any scientific logic.

The theory of relativity goes beyond quantum mechanics to assume that not just the consciousness but also the assumptions and presumptions of the observer affect the outcome of an experiment. Fortunately, neither the consciousness nor the assumptions and presumptions of the observer make any difference in the outcome of an experiment.

The absence of a universal rest frame creates a genuine theoretical problem. The theory of relativity comes quite close to finding the right solution of the problem, but Einstein's wrong interpretation of the facts created all the chaos. Einstein fails to see that the nature has offered a solution to this major problem.

The theory of relativity suggests that for every observer his own reference frame is always at rest; therefore, the state of motion of all the entities has to be determined in relation to the frame of reference of the observer.

The fact is that for every entity his reference frame is always at rest. Therefore, the state of the motion of every entity has to be determined in relation to its own frame of reference.

This proposal is not based on any assumptions because for all the practical purposes, the frame of reference of every entity actually behaves as if it is in the state of the absolute rest.

For all practical purposes, the Earth is considered to be the static frame of reference for the physical entities existing on the Earth.

We ignore the direction and velocity of the Earth while determining the velocity of the objects moving on the Earth. Similarly, we ignore the motion and direction of motion of a train while throwing the things around in a moving train.

None of the absurd situations discussed above are created if we throw the things towards each other. The same logic applies to other celestial bodies as well. For example, if we move to the Moon then, the Moon is supposed to be the static frame of reference for us.

Therefore, routine observation of the world around shows that the frame of reference of every observer behaves as if it is in the state of absolute rest. Obviously, an entity can be in motion only if it changes its position on its own frame of reference.

We do not have to assume anything because for every entity its own frame actually behaves as if it is in the state of absolute rest.

Thus, the motion, hence the velocity no longer remain an observer dependent relative phenomena.

Even the direction of motion of the entity is inconsequential.

Suppose a person is moving in a train. He peeps out of the window and sees a person walking in a park and another person sitting on the bench.

The person is the train does not conclude that both the persons are in motion. He uses simple logic and concludes that one person is in motion and the other person is at rest.

We can define motion as follows: *The motion of an entity has to be defined as a change in the spatial coordinates of an entity on its own frame of reference.*

The motion of an entity does not have any effect on the properties of any other entity. The experiments conducted to verify the proposals of the theory of relativity also confirm these observations.

A clock was flown onboard commercial aircrafts to verify the proposal of the theory of relativity on the time dilation.

As predicted by the theory of relativity, the clock rate of these clocks reduced. However, physicists conveniently ignored another important fact – there was no effect on the clock at the Earth.

The clock rate of the clocks used in this experiment changes irrespective of the presumptions and assumptions of the observers, but the motion of aircraft does not have any effect on the clock rate of the clocks on the ground.

The assumptions and presumptions of the observers or the motion of the aircraft have no effect on any clock on the Earth.

In case of the addition of velocities, the value of v, which is the velocity of the reference frame of the observer, is always zero; therefore, the direction of motion does not have any effect.

Obviously, the velocity and direction of the motion of the bee depend on the change in its position on its own frame of reference.

Therefore, the velocity and direction of the motion of the ball as well bee will be the same for all the observers.

In the twin paradox, to start with both the twins are at rest in their respective frames of reference. Therefore, there will be no change in the clock rate of the twin on the Earth. However, the clock rate of the spaceship will change because of a change in its velocity. Suppose both the twins have identical clocks that transmit one signal per second.

The emission frequency of the signal emitted by the clock of the space twin will reduce as soon as he starts moving. Since the received frequency is always equal to the emission frequency; therefore, the Earth twin will know that the clock rate of his twin has reduced. The spaceship will not observe any change in the frequency of the Earth clock, but he will not be able to determine whether his clock has slowed down or the Earth clock is running faster.
On his return to the Earth, the twin who had gone to the space would realize that his twin on the Earth is much older than he is. Therefore, he would know that the time for him was running slower.

However, the twin who had gone on space voyage does not have any real advantage because everything slows down in his frame. Therefore, he takes proportionally longer time to complete a task.

As already pointed out, the experiment conducted to verify the proposals of the theory of relativity confirm our observations.

Obviously, for every entity, its reference frame is at rest.

The relativity of velocity comes into play only if two bodies are in motion with respect to their own frame of reference or if we have to determine the length contraction and time dilation effect.

This concept of motion does not create any paradoxes. More importantly, it is based on how the things actually behave.

The theory of relativity fails to provide a causal explanation of its observations. For example, it does not explain why motion causes length contraction and time dilation because Einstein fails to realize that a change in the mass causes a change in the energy of the emitted wave, which in turn, causes a change in its emission frequency.

If the mass of an entity increases then, its emission frequency reduces. Therefore, atomic clocks run slower. Obviously, an increase in the mass, not the motion is the cause of the time dilation. Obviously, any factor, not just the motion, that causes a change in the mass/energy of an entity must cause a change in its emission frequency.

However, the motion does not cause contraction of the entity. The length contraction is about a change in the length between the observed and observer, not about a change in the length of the entity in motion.

We will discuss the concept of length contraction in another article.

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Note: *Vixra does not have any plugin for attaching supplementary video files. Therefore, we have presented this entire discussion in a youtube video. The link to the video is:* https://youtu.be/PebJmg0p5mc