Einstein's errors

HOME: The Physics of Bruce Harvey

Einstein's 1905 paper on special relativity⁴ is most probably plagiarised from the work of Lorentz and Poincaré. Because it contains their results in the form of mathematical equations, it is hard to criticise within the framework of the scientific method which demands that theory produce equations which stand the test of experimental verification. However:

- Einstein is wrong to say that the speed of light is a universal constant.
- Einstein is wrong to say "The introduction of a 'luminiferous ether' will prove to be superfluous inasmuch as the view here to be developed will not require an 'absolute stationary space' provided with special properties,"
- Einstein is wrong to say that space and time are distorted.

The speed of light is a very interesting phenomena. It does vary, but that variation is impossible to measure in any local experiment. There is a non local experiment in which the speed of light is measured via the exchange of radio signals between earth and a space probe on the other side of the sun. While the earth and the probe follow well defined orbits, the radio signals are found to be delayed when they pass close to the sun. The speed of light measured over the scale of planetary orbits shows experimental variation. Locally along its path, it would always be measured to be the same numerical value because the rulers and clocks used to measure it would be affected by gravitational potential in the same way.

If we could measure the local one way speed of light, we would find it added to our speed through the stationary system, but we cannot do this because we have no way of synchronising two clocks to time the one way speed of light between two points. As we have seen, even placing two clocks side by side, synchronising them and then moving them apart causes synchronisation errors. These errors will always conspire to give the same numerical result for a one way measurement of the speed of light. Two way measurements to a mirror and back will always be affected by the length contraction and the slowing of clocks to give the same numerical result. Einstein's error is to assume that this numerical result is the speed of light. It is a measurement of the speed of light. Thus it is legitimate to say that 'The "locally measured speed of light" is a universal constant.' It is an error to précis that statement to 'The speed of light is a constant.'

The key to understanding Einstein's theory is the ownership of light. All his derivations require one system to be called stationary and the other moving. The trick is to make the stationary system own the light. The observer in the moving system then uses stationary system light to synchronise his clocks. By this trick Einstein temporarily gives to his two systems the properties of the stationary and moving systems of a Lorentz-Poincaré world. Properties which in his interpretation of "the relativity principle" may not exist. (Einstein most probably plagiarised the relativity principle from Poincaré who published it in "The Principle of Relativity" Bull. des Sc. Math xxviii 1904) His derivations are a fudge because he uses this ownership of light trick to justify using c + v and c - v in his equations in spite of the fact that he latter asserts that the result of such sums must always be c.

Einstein's basic assertion is that their is no "privileged system" by which he means that there is no æther which can have a physical effect on bodies moving through it. Therefore according to Einstein's axioms; clocks cannot be slowed, rulers cannot contract and mass cannot increase. These according to Einstein are artefacts of observation caused by observing objects in relative motion, not real physical effects. As such they appear to be reciprocal. Both observes see the other's clocks running slow. Both observers see the other's rulers to have contracted in the direction of motion. Both observers find moving objects harder to accelerate and say their mass is increased. Einstein gives no reason for this other than the will of God. No privileged system, therefore no physical effect. For Einstein, it is simple: God created a universe in which the laws of

physics would be the same for all observers.

In the real Lorentz-Poincaré world, the effects of motion through the background and the way we see things and synchronise our clocks conspire as we have seen, such that both observes see the other's clocks running slow, their rulers to have contracted in the direction of motion and find moving objects harder to accelerate inferring that their mass is increased.

The result of Einstein's subversion of Lorentz Poincaré relativity is to turn logical causal events into paradoxes. In the real Lorentz-Poincaré world, the twin who takes a trip on a starship really does come back to find his twin has aged more. In Einstein's imaginary universe in which there can be no physical effect, an ingenious fudge is needed. In latter years with the introduction of the General Theory of Relativity, the "slowing of time" is attributed to the acceleration. Mathematically it cannot go wrong as an explanation because integrating acceleration gives velocity and it is velocity through the background of the real universe which causes time dependent processes to slow. Physically, the use of acceleration is nonsense because there are three types of acceleration: linear acceleration, linear deceleration and centripetal acceleration. The acceleration fudge depends on matter knowing which type of acceleration is taking place, yet Einstein not only fails to understand that there are three types of acceleration, but states that acceleration and gravity are indistinguishable.

All the arguments used by Einstein and those who teach his theory hinge on the problems of clock synchronisation. In the real Lorentz-Poincaré universe, clock synchronisation errors occur because of the real physical effects we have discussed, but in an Einstein world, there can be no physical effects, only artefacts of observation. In Einstein's illustration of a train moving down a track, the train does not physically contract. Therefore if two trains pass each other, the passing of their carriage ends will beat out perfectly synchronised Newtonian time allowing local clocks to be calibrated and synchronised. With both trains populated with perfectly synchronised clocks all running at the same speed, no relativistic effects should be observed.

The fact that we observe the relativistic effects proves we live in a Lorentz-Poincaré world.