

SRT v/s SRT

(From Aristotle to Einstein Even To Date Same Folly Rules the Paradigm of Special Relativity by © Our Pal Asija 2009)

This paper and concomitant presentation trace the errors in special relativity to Aristotle more than two millennia ago and how with an unintended boost from an Icon of Science Einstein himself, the paradigm that rules physics and indeed all science has been corrupted, which main stream science continues to follow blindly and even worship Einstein for it as a gesture of gratitude. How could the great scientist make such an error and why scientists still not have been able to fix it is an ever perplexing and baffling mystery, which I will try to demystify.

I. Main Stream Science – Both SRT & GRT are gospel truth. They have stood the test of time. No papers contradicting Einstein’s Relativity will be considered let alone published. According to some tacit understanding careers of Dissidents are destroyed to eliminate any dissent.

II. NPA Majority – Both SRT & GRT are wrong and baseless, notwithstanding science should not be a matter of majority vote, consensus or democracy of any variety. In this modus operandi there is little difference between main stream science and the NPA.

III. Yuri Keilman – SRT is substantially correct as Lorentz mathematical non-physical theory or concept. Both SRT and GRT are non-physical theories as they are merely concepts expressed in math. GRT is completely wrong and baseless (Same as NPA majority and my position).

IV. OUR PAL - SRT is substantially wrong but not baseless. Asija agrees with Yuri that both GRT and SRT are non-physical theories or concepts. PAL also agrees with Yuri & NPA that GRT is completely wrong or baseless. OUR PAL is convinced that Einstein’s SRT is conceptually correct and can be made substantially correct with following minor modifications

- a) Changing time and frequency dilation to contraction (travelling twin ages faster & more if he survives g forces at all)**
- b) Changing Mass increase to mass reduction to harmonize with length contraction.**
- c) Changing the gravity effect to opposite and smaller than relativistic effect rather than greater and opposite as the mainstream insists to this day.**

Galileo's Pendulum

The purpose of Galileo's gravity pendulum formula is to vicariously measure gravity by measuring the time period of the pendulum and not the length of the pendulum, nor any of the variables which affect the length of the pendulum which the experimenter can vary at will. Here are three popular ways to express the pendulum formula.

1) $t = 2 \text{Pai} \text{Sq Rt} (l/g)$

2) $t^2 = 4 \text{Pai}^2 l/g$

3) $g = 4 \text{Pai}^2 l/t^2$

The following conclusions are apparent

- 1) Gravity 'g' in the numerator and time period 't' in the denominator are inversely correlated as in equation - 1 above.
- 2) Gravity 'g' and 'l' the length of the pendulum are also inversely correlated as they appear in the denominator and numerator respectively on the same side of equation - 2 above.
- 3) Therefore it follows from equations one and two that time period 't' and 'l' the length of the pendulum are directly correlated as they appear in the denominator and numerator respectively as in equation - 3 above.

One can also readily deduce that shorter pendulum swings faster. In other words all other parameters being equal a shorter pendulum has shorter time period 't'. Conversely cooler temperature in the upper atmosphere makes the pendulum shorter and faster i.e. time contraction. However this factor is non-issue as there is no atmosphere at Geosynchronous GPS level (42,000 kms) to speak of, but one can take notice that if one were to confuse and extrapolate this atmospheric differential between sea level and Denver level with the gravity then one would unintentionally and inadvertently draw the wrong conclusion.

Let me illustrate this with many experiments already performed in connection with the GPS (Global Positioning System) and Particle accelerator and collider experiments in cyclotrons and linear accelerators, but first a note on time dilation and the twin paradox is appropriate here.

Time Dilation & Twin Paradox

It is unfortunate that Einstein got both mass increase and time dilation backwards. Even though everything physical is subject to time contraction and everything virtual, non-physical or even metaphysical is subject to time dilation. Since Einstein was a theoretical physicist (and certainly not meta-physicist and much less spiritualist) it is safe to assume that Einstein got time dilation backwards as applied to anything physical.

Time contraction also implies frequency contraction notwithstanding time and frequency are inversely related. As frequency increases they (high frequency waves) become more deadly than even Gamma rays, such that physical burns up and dies and the virtual is released from the body to experience time dilation of eternity.

It is the travelling twin that ages faster and more, if at all, and not the earth bound twin without affecting the soul of either even though two souls arguably are trapped in differently ageing bodies. The reality is that the travelling twin cannot survive the g forces and therefore dies before the frequency contraction reaches gamma rays and beyond frequencies.

It should be noted that as a natural consequence of time contraction applicable to physical bodies and time dilation applicable to virtual souls we can conclude:

- a) Dead don't age.**
- b) Virtual soul is timeless and ageless as soon as it is released from the body even without application of time dilation.**

It is obvious and apparent that Einstein never considered time dilation for the soul of the travelling twin, instead the great scientist applied time dilation to the physically body of the travelling twin. In reality he could have applied it just as well the earthbound twin as each is travelling with respect to the other.

To be right and to conform with reality Einstein should have applied

- (i) Time contraction to the body of the travelling twin (or earth bound twin)**
- (ii) Or relative time dilation to the body of the body of the earth bound twin**
- (iii) As a theoretical physicist Einstein did not even believe that physics can be applied to spirits, soul or anything non-physical or metaphysical.**
- (iv) Furthermore he did not even believe in a personal God even though he was not an atheist.**

GPS Practice & Experience

Main stream science claims GPS has confirmed and vindicated Einstein's Relativity. But GPS works not because of SRT but in spite of wrong science. Engineers made GPS work by trial and error, by doing just the opposite of Einstein's time dilation would have required (i.e. speeding up GPS clocks before launch to synch with ground based clocks. Instead experience has shown that Engineers in practice derive from their trial and error methodology actually slow down GPS clocks before launch by 38.4 microseconds per day in order to synch with ground based clocks.

Main stream science made two errors which coincidentally end up cancelling each other so that the result agrees with the actual functioning and practice of the Global Positioning System.

The second error in addition to the time dilation error (instead of time contraction) is confusing "measured atmospheric effect with gravity effect" and recklessly extrapolating it to geosynchronous GPS level of 42 million meters where there is no atmosphere, which resulted in backwards gravity effect as "Clocks run slower the deeper they are placed in the gravity field" (See Infinite Energy Vol. 12, Issue 67 (May-June 2006), page 23, column 1 middle of last full paragraph, while in reality the fact is just the opposite. "Clocks run slower at GPS level due to lower gravity." Other ways to state the same is "Clocks run faster deeper they are in gravity field" or Clocks run slower deeper they are in the atmosphere (i.e. closer to the ground where pressure and temperature are higher)

Galileo's pendulum formula $t = 2 \text{Pai Sq RT} (l/g) = 1/f$ stands as enduring testimony. It can be further observed that temperature and pressure effect of atmosphere is opposite of the Galileo's gravity formula because higher temperature at ground lengthens the pendulum which being in the numerator instead of g in the denominator has the opposite effect. Shorter pendulum swings faster. Longer pendulum swings slowly. Similarly it can be seen that higher pressure on ground also slows down the pendulum due to greater resistance. So if you measure time period of pendulum at sea level and then again at mountain level and think that you are measuring solely the gravity effect alone and then extrapolate it to GPS level where there is no atmosphere, you obviously are not only negligent but reckless in your thinking and behavior.

Accordingly main stream science erroneously concludes that 'gravity effect is greater and opposite of relativistic velocity effect while in reality my position is just the opposite to wit the gravity effect is smaller and opposite of the relativistic velocity effect. Let me illustrate this with actual numbers and GPS experience. Let time and frequency contraction by convention be positive and dilation as negative.

MAIN STREAM SCIENCE – Time dilation is - 45 Microseconds per day. Gravity effect is greater and opposite i.e. 83 Microseconds per day of time contraction. Net is $83-45 = 38$ microseconds contraction as the combined effect, which of course agrees with GPS experience as its clocks are slowed down before launch by 38.4 microseconds per day. So the two errors (Time dilation instead of contraction and gravity effect extrapolated from its atmospheric effect) cancel each other to rationalize the result in retrospect.

OUR PAL – Time contraction due to relativistic velocity or similar concept (just the opposite of Einstein’s time dilation) is 45 Microseconds per day. The gravity effect is opposite and smaller i.e. -7 microseconds per day resulting in net increase of $45-7 = 38$ microseconds per day. So again the result agrees with GPS experience as well as main stream science’s fudged rationalization by aggregating multiple comedy of errors.

To recap SRT(Special Relativity Theory) time dilation would have required speeding up of the GPS clocks before launch but by confusing atmospheric effect with gravity effect created the illusion of “Gravity effect greater and opposite while measuring its opposite the atmospheric effect” and extrapolating it to GPS level (^{42X10}where there is no atmosphere. Consequently this error helped main stream rationalize GPS experience that is slowing down of GPS clocks by 38.4 microseconds per day before launch to synch with ground based clocks. Possible sources of errors include the following.

- a) The absolute velocity of the Satellites is not easy to ascertain and calculate. The direction of the satellites motion is not the same at all times as when combined with tripartite motion of the milky way galaxy (and hence the earth) arranged in ascending order of speed i.e. rotary, orbital and almost linear motion of the earth/galaxy at 370 km/sec from constellation Aquarius to constellation Leo.**
- b) Possible Transposition of sign in the convention adopted for time and frequency contraction or dilation which are used interchangeably even though they are reciprocals of each other.**

Gravity effect is also opposite of the relativistic effect. Dr. Phipps in his now popular issue 67 (2006) cover article “GPS (Global Positioning System) Evidence Against the Relativity Principle” erroneously concluded that gravity effect is greater and opposite the relativistic effect (Vol 12, Issue 67 Page 23, column 1). My position is that the gravity effect is opposite and smaller than relativistic effect. This fact when coupled and integrated with Einstein’s time dilation (instead of contraction) false and misplaced confidence in Einstein’s SRT (Special Relativity Theory) and GRT (General Relativity Theory).

So if you measure gravity at sea level and again at Mt. Everest, you would measure time contraction and erroneously conclude that the clock is running faster at Mt Everest due to lower gravity, when in reality it is the temperature and pressure effect, which happens to be greater than the gravity differential when the two points of measurement are this close to the earth.

Fuzzy Math Fuzzy Reasoning

When main stream Scientists were told that engineers (by trial and error) had to slow down satellite clocks by 38.4 microseconds per day to synchronize with earth bound atomic clocks they did some quick fuzzy math rationalization as follows.

- 1. Einstein cannot be wrong. Therefore time dilation due to relativistic effect is as calculated is -45 microseconds per day.**
- 2. To achieve the +38 microseconds per day net differential they concluded the gravity effect must be opposite and greater i.e. 83 microseconds per day to agree with the engineering practice of $83 - 45 = +38$ microseconds.**
- 3. Measurements at sea level and Denver level boosted their confidence.**

It was not conceivable for Einstein worshipers to entertain the possibility that Einstein might be wrong - that instead of time dilation there is actually time contraction (+45 Microseconds per day) and the gravity effect is opposite and smaller that is -7 microseconds per day and the atmospheric effect plays no part in it.

If they did not want to fool themselves, the main stream scientists should have reasoned, realized and clearly enunciated that clocks run faster, deeper they are in the gravity field or they run slower deeper they are in the atmosphere.

Accelerator Experiments

The observation of mass increase in linear accelerators and cyclotrons would actually vindicate my position when the following sources of gross errors are eliminated.

- 1. There is no way of measuring mass in particle accelerators. The best we can do is to calculate backwards from measurement of energy and momentum.**
- 2. There is no way of measuring the energy or momentum of a single particle. The best we can do is to average the energy or momentum of (to borrow a phrase from Late Carl Sagan) billions and billions of particles over many experiments individually as well as collectively.**
- 3. The assumption that particle colliders are closed systems is baseless if not absurd as well. Therefore application of conservation (of momentum and energy) laws constitutes reckless disregard for science, reality and truth and hence the title SRT v/s SRT. The fact is there are no closed systems anywhere in our physical universe.**
- 4. Furthermore there is constant exchange of energy from, to and with zero point energy which is infinite and conservation laws make no sense if the supply is infinite.**
- 5. The absolute velocity vector of the particles is not easy to ascertain and calculate as it is constantly changing. The direction of the motion is not the same at all times as when combined rotation of the earth. Circular Cyclotrons and linear accelerators behave differently due to this one fact alone i.e. straight line v/s constantly changing direction of the beam as the earth spins and orbits and advances at high speed as part of the milky way galaxy from constellation Aquarius to constellation Leo at approximately 370 kms per second.**
- 6. It is further complicated with the orbital motion of the earth around the Sun and almost linear motion of the earth/galaxy at 370 km/sec from constellation Aquarius to constellation Leo. The changing motion of the frame of reference where the particle collider is located is complex and cannot be measured accurately with any degree of confidence as other planets and stars modify its absolute velocity somewhat.**
- 7. Mass increase is fundamentally inconsistent with length or size or volume contraction.**
- 8. Studying constituents of atoms in particle accelerators/colliders/smashers is analogous to studying how wrist watches work by smashing them together at high speeds and then analyzing the resultant mess of badly mangled components.**

CONCLUSION

In summary it is my position that science has gone wrong because of faulty science paradigm in reckless disregard for science, reality and truth. His then is the origin of the title SRT v/s SRT (Special Relativity Theory versus Science Reality and Truth). The only way to get back on track is to fix the paradigm itself, which can be the topic for another paper and/or presentation.

Just as Aristotle intuitively concluded – heavier objects fall faster – we intuitively think clocks run slower deeper they are in the gravity field (closer to sea level), but Galileo's Pendulum formula convinces us otherwise. The reason our intuition is just the opposite is due to the atmospheric effect which has opposite effect on the time period of the pendulum. We can rationalize and reconcile our intuition with reality by appreciating the opposite effect of temperature and pressure on the time period of the pendulum at sea level to that of gravity as temperature and length are directly proportional and each is opposite to gravity 'g'. Likewise the effect of the pressure at sea level (due to greater resistance of heavier air) is also opposite of gravity effect on the pendulum or any other chronometer or time measurement method. Consequently one would be justified in concluding as follows.

- 1) Clocks run slower, higher they are in weaker gravity field, especially at GPS level, where there is little atmosphere if any at all.**
- 2) Clocks run slower deeper they are in atmospheric (not gravity) field.**

Perhaps our intuition is better than Einstein's time dilation formula as it automatically and sub-consciously accounts for atmospheric effect and integrates with the time period of the pendulum near the surface of the earth.