

FQXI CONTEST 2016-2017

THE PURPOSE OF LIFE

Wilhelmus de Wilde

Independent researcher. Alumnus Technical University of DELFT.

Abstract

All information is perceived and identified as past facts that may help to indicate the future. Both past and future are emergent phenomena. We argue that the life-line from an observer is only one of an infinity of availabilities in a time and space-less Hilbert Space that we call Total Simultaneity (TS). The specific emergent life-line we are experiencing is the result of a by time and space constrained form of consciousness, entangled with Total Consciousness (TC) in TS. Both Time and space are models that emerge from consciousness. TS is a set of an infinity of probabilities/availabilities called Eternal NOW Moments (ENM), comparable to singularities. Our experience of time (and so of our life-line) is essentially “happening” as an emerging singularity that is enfolding the experience of time in the emergent reality. We argue that the “thinking” of time-restricted consciousness about ideas that happens in the emergent NOW, is a revealing of different probability lines in T. In emergent life free will is disclosed by the choices that can be made at any ENM in TS. Better understanding the real nature of TS will bring us closer to the awareness that the specific emergent life line we experience NOW is only an excitation, a minuscule part of the endless set of Total You’s in TS.

Introduction : Our Collective NOW Memory.

It is widely accepted that 13,8 billion years ago somehow /somewhere the universe as we are (partly) aware of underwent a change that led to a conclusion that there is a “beginning”. To arrive at a for the present scientific ideas an acceptable beginning of nowhere, ideas like singularity and inflation were introduced. In this perception the the solar system was formed 4,600,000 years ago and the first indication of life is scheduled 3,8,000,000 years before PRESENT. The first hominids were planned 3.000.000 ago and their communication through speech 35,000 years ago. We are looking for proof of these data through excavations on one side and astronomy on the other. Those “scientific” actions are providing us with “facts”. However in our perception the essence of a fact needs to be reinterpreted, because every fact is only an emerging memory from the past. Like banks and investment firms are always warning us “PAST PERFORMANCE IS NO GUARANTEE FOR FUTURE RESULTS”, this also counts for physical LAWS that are deducted from so called facts from the past.

The collective NOW memory that we have been charged with informs us that 12.000 years ago the first human settlements were realised, after the use of stone tools (9.000 before present) and the first primitive exchange of data in writing (6.000 BP), the first alphabet was developed in Palestine (3.700BP). A thousand years later the Greek developed science based on philosophy.(Aristotle, Pythagoras). Until 500 years ago we still thought (for 1.500 years !) that the sun turned around the earth., it was Copernicus who came to the insight that the earth turned around the sun. History tells

us that Newton's three Laws of motion and his "Law of Universal Gravitation" achieved the goal of understanding gravity at that era, ($F=ma$).

Einstein's consciousness interpreted that these Newtonian laws of Classical Mechanics did no longer reconcile with the laws of the electromechanical field. In his Special Relativity Theory he was to explain gravity as a warping of time and space which led to his theory of gravitation from 1916.⁽¹⁾ He also predicted gravitational time delation, gravitational red shift and deflection of light.

** Space and Time were no longer fixed reference points, they became already "blurry".*

117 Years ago Quantum mechanics gradually arose with Max Planck's solution of the black body radiation problem. The later conceived theory was formulated in specially developed mathematical formalisms. In one of them, a mathematical function, the **wave function**, provides information about the **probability amplitude** of position, momentum, and other physical properties of a particle.⁽²⁾

** Now material security is becoming blurry too.*

In order to find an explanation and find a new reference of reference there are multiple interpretations and hypotheses regarding the micro and macro experiences of our "Reality".

Some "thoughts" illustrating the wandering towards the goal of understanding the cosmological scale:.

** One interpretation poses that the beginning" has been replaced by cycle of an infinity of contractions and expansions. This idea is not new, it was Heraclitus (535-475 BC) in his "On Nature" told us already : "This universe, which is the same for all, has not been made by any god or man, but it always has been, is, and will be an ever-living fire, kindling itself by regular measures and going out by regular measures"*

** Can the Universe be seen as an Hologram ?.*

** Is it a three dimensional universe floating as a membrane (or brane) in a bulk universe that has four dimensions ?*

** Happened the birth of the universe after a four dimensional star collapsed into a black hole and its ejected debris ? As gravity delates time outside, observers would see the black hole lasting billions or trillions of years or more depending on its size,*

** Or is it originating from a Hyper-dimensional Black Hole ? The Universe could also be a three dimensional wrapping around the event horizon of this four dimensional Black hole.*

** Could the Big Bang have been a quick conversion of antimatter into matter ?*

** Is our Universe just a "bubble" ? This would mean that in the beginning there was just the Vacuum simmering with energy, when this energy started to evaporate, expanding bubbles were forming, one of these bubbles would be our own universe. Our universe just one in an infinity of others, just a little part of the Multiverse. This theory was first used to explain inflation.*

** Is Space-Time a Quantum System ? (meaning that our 3-D universe is an emergent phenomenon).*

**Or the perception : "Our Universe may be based on quantum phenomena Faster than the speed of light"⁽³⁾*

Mankind is full of ideas, the Theory of Everything is just not available for now in our emerging time-restricted “thinking”. There are too much inexplicable incoming data like dark matter/energy and black holes. The unity between micro and macro universe cannot yet be realised with our scientific method of thinking. But wasn’t it Hermes Trismegistus the purported author of the “Hermetic Corpus”⁽⁴⁾ who informed us : **As Above, So Below.** To find the goal of unification of Above an Below we have to begin exploring the processing of information of consciousness..

The Subjective Simultaneity Sphere (SSS).

The origin of all “thoughts” is the reception of information. We are “observing” and interpreting signals (data) from our outside reality. Each interpretation is different also because each of us is receiving different data. It is like observing a rainbow , each observer becomes aware of a different one. An observer can be imagined to have a sphere around him where all data are entering before being processed by the brain. On the surface of this sphere all signals are entering simultaneously, even if they come from sources far away, moving or in rest with reference to the observer. We will call this sphere the “**Subjective Simultaneity Sphere (SSS)**”.

When observers are near to each other these spheres are joining like soap bubbles.. The observers receive partly the same information but each SSS is unique. Also each observer has his own way to “interpret” the received information, its consciousness is making his own conclusions. Humanity is always searching for the origin of the information that is received on his SSS. For that the human being is trying to put his head outside of his SSS only to discover a new sphere with a larger radius.

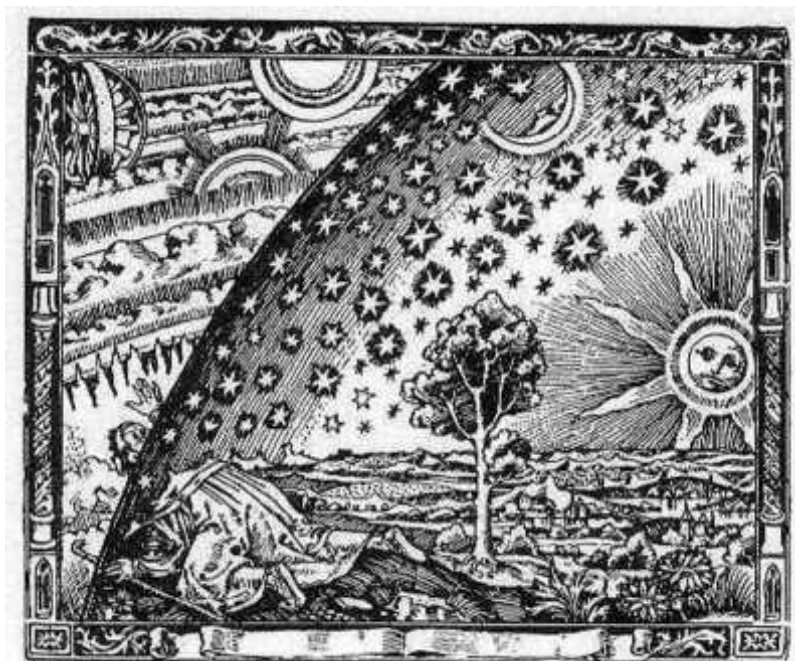


Illustration 1
The search for the origin of the signals arriving on our Subjective Simultaneity Sphere.

* The origin of this painting seems to be the early Renaissance. The dating "**around 1530**" is often found when this figure is used in the literature (eg Vogt 1961, Grössing 1993, Harthemeyer 1994, p.27, Boschke 1962 after Clausberg 1994, p Many schoolbooks for historical and German lessons, in which the woodcut is reproduced (eg Hug 21975, p. 17, Mettenleiter / Knöbl 1998, p. 152).

Once the signals have arrived on the SSS there is processing time needed for the observer to become conscious of these data, our consciousness lags 80 milliseconds behind actual events.⁽¹³⁾

** Is our temporal restricted conscious "living" always in the past...or are we just becoming aware of a timeless conscious NOW experience ?*

What Matter(s)...

Contrary to earlier thoughts particles are no longer comparable to billiard balls with a measurable speed and position. They are not compatible with Newton's Laws. Matter is no matter any more, it can be both wave and particle. Further more Heisenbergs Uncertainty Principle ⁽⁵⁾ states that there is a fundamental limit to the precision with which certain pairs of physical properties of a particle, (known as **complementary variables**), such as **position** x and **momentum** p , can be known. Once one of the variables is measured, it relates also to a moment in the past and there is no certainty at all about its position and or velocity in the future . We can only suppose probabilities.

** This again means that the "NOW" cannot be observed. The only conscious awareness is the PAST (because also the future is unpredictable).*

The Limits of the Emerging Phenomenon called Reality.

Considering these thoughts it becomes difficult to explain how it is possible that we experience a fluently passing time and the "concrete" reality. In order to to understand the essence of "Reality" and to avoid a construction of infinitely small points and/or singularities (an infinity of this points doesn't create an extension !) we introduce "limits". As the upper limit we accept the velocity of light c (at that speed the time doesn't progress). For the lower limit we have to introduce the Planck length and time ($1.6 \times 10^{-35} \text{m}$, $5.4 \times 10^{-44} \text{sec}$) where physical laws are no longer valid, so we defined this value (like in String Theory and Loop Quantum Gravity) as the limit of the emerged experienced phenomenon that is our reality. This however does not mean that the universe is formed by a finite number of finite values of quantity, like a granular construction of Planck spheres with $R=1/2 l_p$. We argue that the dimension behind these Planck units is **not existing** in the reality as we experience, it cannot be reached. We can only hyperbolically approach it. The essence of this "dimension" is that it is timeless and space-less. It can be approached at every "point" in our reality. So our reality is not granular (it is a limit) and there is no problem of the in-between of grains.

The approached entity behind the Planck Wall is everywhere of the same constitution, and can be compared to a Hilbert Space. (a Hilbert space is an abstract mathematical structure). Since it is of the same "nature" at each point of our observed reality it also contains all the information of that specific reality . But not only the observed information of a specific moment, that we will call "**Eternal NOW Moment**,

(ENM)” is present as a probability, also all the features of all possible pasts and futures of that specific ENM are “available” in this Hilbert Space like structure. This “space” also contains every ENM of every “multiverse” and/or “parallel universe” also those that are lying beyond our senses and understanding. This “space” (abstract mathematical structure) we will call “**TOTAL SIMULTANEITY**” (TS)⁽⁶⁾. Imagine that everything you experience in three dimensions including the “perception” of time emanates from there. We argue that the reality as we are experiencing it is “**EMERGING**” from this “Total Simultaneity”.

The role of the Consciousness Observer

Quantum Superposition is a fundamental principle of quantum mechanics. It states that a physical thought system (like photons, electrons) simultaneously exist partly in ALL theoretical possible states. Once measured or “observed” the observation will give a result corresponding to only one of the probable states (from the past). So a particle behaves differently in the double slit experiment ⁽⁷⁾ depending on **whether it is being observed or not**. If either path is monitored by an observer, for instance a photon will pass through one of the slits and no interference will be seen. If neither slit is “observed”, the photon will appear to have passed through both slits simultaneously, acting like a wave.

** The conscious observer has a definite role in the creation of his specific emergent reality.*

In 1978 John Archibald Wheeler posed the “Gedankenexperiment” of delayed choice. Alan Aspect and colleagues at the Institut d’Optique, Ecole Nationale Supérieure de Cachan and the National Centre for Scientific Research, all in France, actually performed this delayed choice experiment in 2007 with single photons. (Wheeler’s delayed-choice Gedanken Experiment with a single atom ⁽⁸⁾). They used beam-splitters instead of slits. By removing or inserting a second beam-splitter randomly they could either recombine the two paths or leave them separate. It became impossible for an observer to know which path a photon had taken. They showed that if the second beam-splitter was inserted, even AFTER the photon would have passed the first one, the interference pattern was created! This implicates that an article’s wave or particle nature is most likely undefined until a measurement is made. It also gives an indication of “Backwards Causation”: the particle must have somehow information from the future, which could mean that this involves sending a message faster than light...

** Not only the passing of time is relative, but also the ranking of past and future is no longer a main principle.*

Two explanations through the perception of TS :

1. Backwards causation

The explanation of the structure of reality as emerging from Total Simultaneity is a clear one: Reality seems to be imprisoned in time, but each experienced NOW moment is in “contact” (entangled) with its Eternal NOW Moment in TS. The introduction of the second beam-splitter is in our future, but “represents” a timeless ENM in TS. The photon is “associated” with its timeless ENM in TS and so connected with one of the probabilities where the beam-splitter is inserted. It is also related to an ENM where the beam-splitter is not inserted. The choice is representing different available time-lines in TS. Total Simultaneity is acting like a wormhole connecting choices and time-lines.

Total Simultaneity however would only be an infinite collection of ENM's without the catalyst called Consciousness. In our time restricted emerging reality, it is through the conscious observation of a “superposition of emergent phenomena ” that we become aware of a certain probability, that is altered to a memory. In our reality we are only aware of the past. The emerging reality we are experiencing as a time-line (life-line) is one of the available infinity of chains of Eternal Now Moments in T, changing at every ENM..

2. Spooky action at a distance

Emergent subatomic “particles” or “excitations” can become entangled, meaning their qualities are bizarrely linked. Emergent subatomic “particles” or “excitations” can become entangled, meaning their qualities are bizarrely linked. For instance if two photons are sent from a source in separated directions and encounter a two channel polariser, their spin will be linked the moment one of the particles is measured. No matter how far the entangled particles are, or how fast a particle is measured, or how many times they are measured, their states become inextricably linked. The distant effect is instantaneous with the measurement.⁽⁹⁾

Without simultaneity at a distance this notion doesn't make sense in our reality. We argue that this coupling is achieved in Total Simultaneity. The decision of Alice (conscious observer) in TS (see illustration below) has an **immediate parallel with the ENM of the emergent universe where Bob is making his measurement.** (TS is time and space-less). We need no longer non-local hidden variables (particles interchanging information at a velocity $> c$) in our emergent reality. The Spooky Action at a Distance (Einstein) has vanished, its causation (the decision of the observer) is just an ENM in TS that is also in contact with the merging reality of Bob in Total Simultaneity. TS can be compared to the effect of a wormhole.

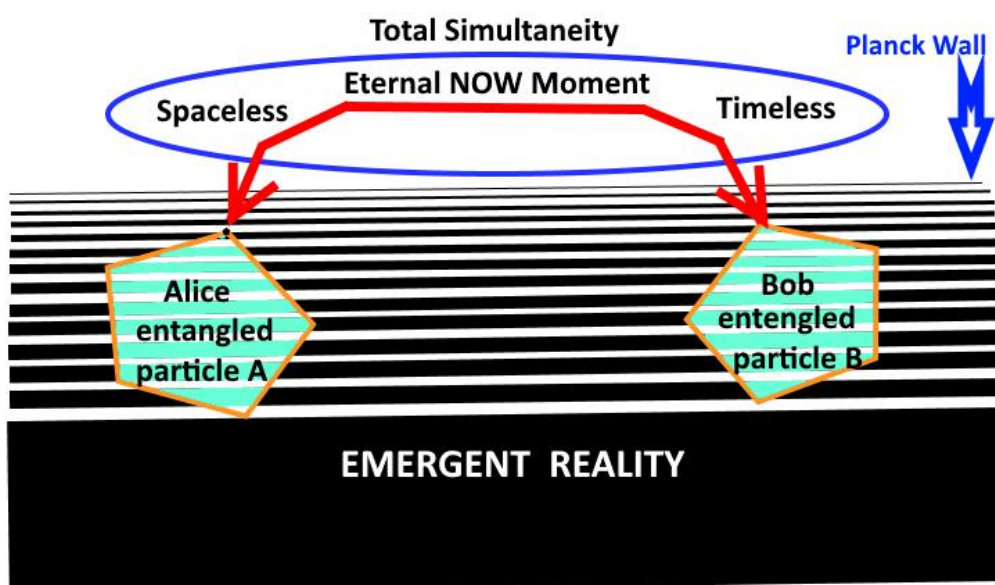


Illustration 2
Instantaneous action through Total Simultaneity on entangled particles.

In our emergent reality the observer added one of these positions in his memory, each position has become part of his own emergent experienced time-line . However we experience only one life-line (see illustration 3) that is embedded in the infinity of ENM's each one with its own information stock of the connected ENM's.

TOTAL CONSCIOUSNESS

We argued already that Total Simultaneity without Consciousness just would be infinite pile of information without any intent, chaos. Conscious observers (mankind, animals, trees and plants) are emergent creations that during their lives seem to have principal goals like surviving and procreation. A goal means that the living entity has a WILL. Observing the collective memory of humanity gives the indication that since the beginning of time, mankind has always searched for a reason of life bigger then the materialistic one. Not only the “HOW” but also the “WHY”.(sticking your head outside the SSS). There are now about 4,200 religions and spiritual traditions in the world with a total of 7,167 million of practising people.⁽¹⁰⁾ on a total population of 7.400 million !. Belief and religion are ways for humanity to understand their reason of living and to get answers on the WHY. It also gives humanity in a lot of answers of the HOW (even if the answers are metaphysical). Religion and spirituality are together with science providing explanations. Many religion is in this way a Theory of Everything (TOE) for certain individuals. Our consciousness is constantly searching for THE answers, and we are aware that in this emerging temporal reality each new answer will give an infinity of new questions...

In TS Consciousness is not restricted or limited by space or time, because both space and time are not present in this concept. We argue that in TS the catalyst for the emergence of time-restricted forms of consciousness is **Total Consciousness. (TC)**. Total Consciousness creates an infinite alphabet of ENM's, ALL the possible stories that can be written, are in this way available.

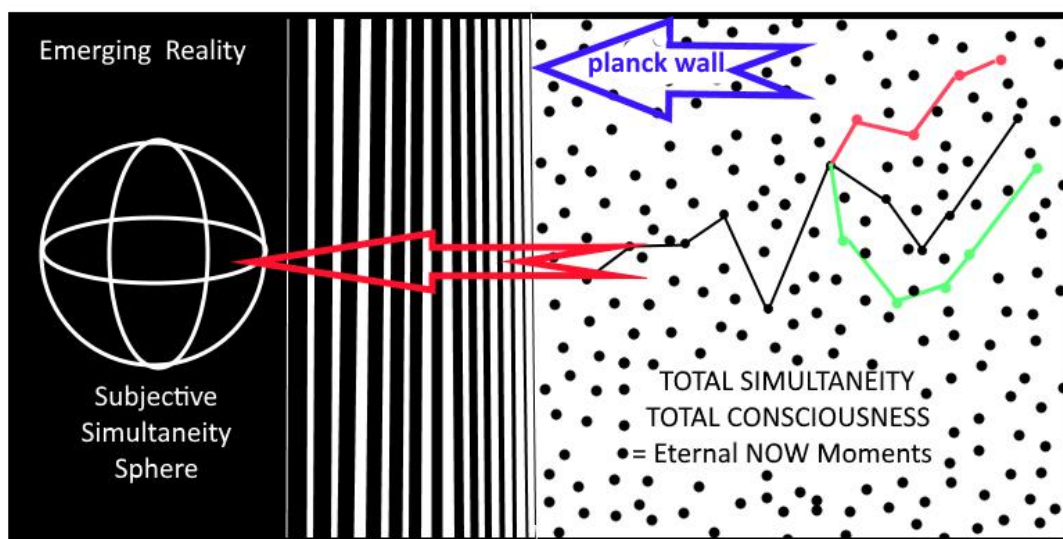


Illustration 3

The “projection” out of the space and timeless TS of the “data” from a life-line(story) (black line) on a momentary Subjective Simultaneity Sphere.

The probability (story) of the life-line you are experiencing as living right now is just a timeless point in TS and it seems to be a sequence of memories for your time-restricted consciousness. (being the string of “connected” timeless ENM’s in TS projected on your Subjective Simultaneity Sphere, see illustration 3 above)

Conclusion

There is an infinity of parallel life-lines available for the “YOU”, this means that there are also an infinity of “YOU’s” available, a multiverse of realities not in a material way but as probabilities. Both parallel and multi universes don’t need any space and/or time nor energy in TS. They become a reality (an emergent phenomenon) for any form of dimension-restricted forms of consciousness. What we experience as reality is essentially a complete emergent phenomenon that doesn’t need space and/or time, These emergent phenomena are in our minds (also emergent phenomena !). Our whole life is experienced entirely in a “present” moment, emergent from the Eternal NOW Moment. It is not a matter of measurable intervals of time.(clock-time). Each Eternal NOW Moment becomes a timeless memory once we became conscious of it.

** In the emergent phenomenon of reality it is instantaneous, in Total Simultaneity it is “eternal” (timeless).*

Whatever is eternal must be out of time. Total Consciousness is in TS “out of time”. The emergent phenomenon of consciousness out of Total Simultaneity is “entangled with TC in TS. In TS every probability you can think about becomes an availability. (for example : Boltzmann’s Brains, but don’t be afraid it is only a probability that can become available ⁽¹²⁾) Once you are thinking about an interpretation (model) of your reality (like the theories on page 2) these ideas become available in a specific timeline in TS. The so called mindless mathematical formula’s are explanatory expressions , not mindless at all because they are the result of the emerging consciousness thinking., they are interpretations of the data received by the SSS. All the probability “lines” do not HAPPEN in the emergent phenomenon of the thinker, the thinker is becoming an emergent reference point (centre of SSS) for a specific ENM in TS.

In our reality when a goal has been attained it is finished. Each time we arrive at a decision point (an ENM) there is an infinity choice of branches available. Our “free will” in this emerged phenomenon of reality is constrained to ONE of the availabilities, at each ENM of your life-line the story is changing. Birth and death are constructed emergent entities in the emerging thoughts of the emerging thinker, they form a singularity in the “wholeness” of TS.

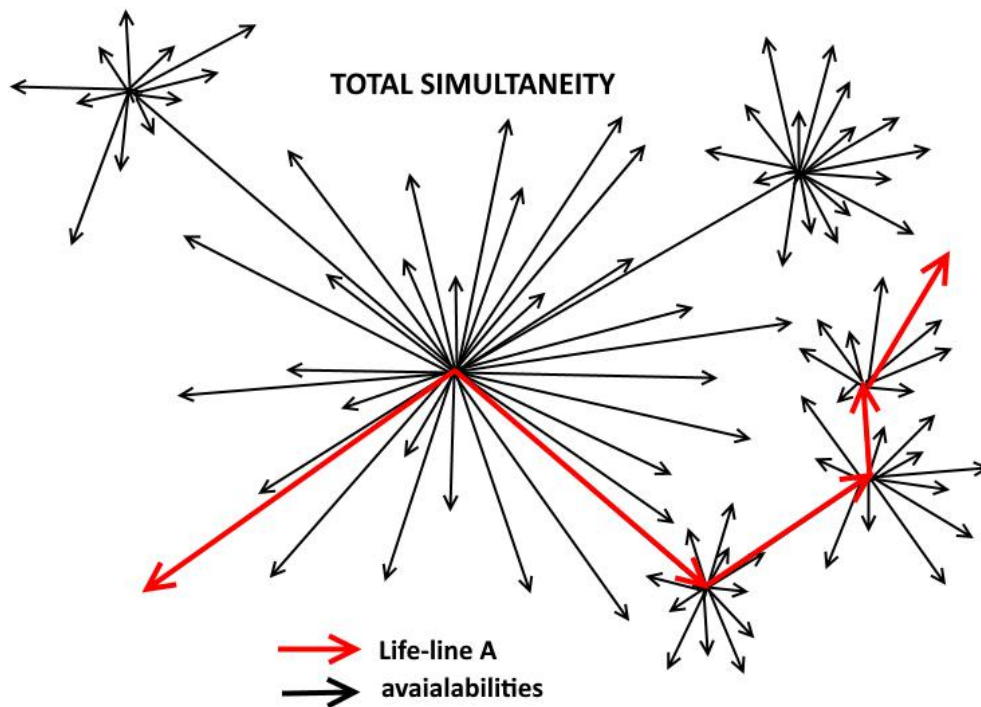


Illustration 3

The timeless memory- line of ENM's in TS representing an emergent NOW.

Each decision made by the emerging yourself is an unique one, the other choices you had are staying available as probabilities. The YOU doesn't split up like in the Many Worlds Interpretation ⁽¹¹⁾ but just **changed to a different YOU life-line in TS**, that was already an availability. The reality you are dreaming of is available and so are others. The goal of our limited consciousness is to advance the limitations of our temporal consciousness to come closer to TC.

As awareness of existence in an emergent reality is a timeless moment that is directly becoming a non attainable past , "existence" is just a timeless moment an excitation resulting in the conscious effect of enrolling time. The models of time and space are constructions of consciousness.

Our goal/purpose : Come closer to the TOTAL YOU.

Montrouveau February 2017
 Wilhelmus de Wilde
 Wilhelmus.d@orange.fr

References

1. Einstein, A (June 1916). "Näherungsweise Integration der Feldgleichungen der Gravitation". *Sitzungsberichte der Königlich Preussischen Akademie der Wissenschaften Berlin*. part 1: 688–696..
2. Feynman, Richard. "The Feynman Lectures on Physics III 21-4". California Institute of Technology. Retrieved 2015-11-24. "...it was long believed that the wave function of the Schrödinger equation would never have a macroscopic representation analogous to the macroscopic representation of the amplitude for photons. On the other hand, it is now realized that the phenomena of superconductivity presents us with just this situation.
3. Feb.20 2014 : Jennifer Chu. MIT News Office.<http://news.mit.edu/2014/closing-the-free-will-loophole-0220>
4. Hermes Trismegistus ; The Emerald Tablets, Tablet XV : The Secret of Secrets. Hermes Trismegistus may be a representation of the **syncretic** combination of the **Greek** god **Hermes** and the **Egyptian** god **Thoth**. Greeks in **Hellenistic** Egypt recognized the equivalence of Hermes and Thoth.
5. Werner Heisenberg : 1927 : "Über den anschaulichen Inhalt der quantentheoretischen Kinematik und Mechanik" ("On the Perceptual Content of Quantum Theoretical Kinematics and Mechanics").
6. Wilhelmus de Wilde . Journal of Consciousness Exploration & Research. Volume 8 n°1 , 2017.:” *Total Consciousness in Total Simultaneity*”.
<http://jcer.com/index.php/jcj/issue/view/75/showToc>
7. Feynman, Richard P. (1988). *QED: The Strange Theory of Light and Matter*. Princeton University Press. ISBN 0-691-02417-0.
8. Nature, Physics, published online 25 mai 2015, A.G Manning, R.I. Khakimov, R.G. Dall and A.G. Truskott (DOI 10.1038/NPHYS3343
9. Schrödinger E (1935). "Discussion of probability relations between separated systems". *Mathematical Proceedings of the Cambridge Philosophical Society*. **31**(4):555–563. **Bibcode**:1935PCPS...31..555S. **doi**:10.1017/S0305004100013554.
10. https://en.wikipedia.org/wiki/List_of_religious_populations (January 2017)
11. Everett, Hugh (1957). "Relative State Formulation of Quantum Mechanics". *Reviews Of Modern Physics*. **29**: 454–462. **Bibcode**:1957RvMP...29..454E. **doi**:10.1103/RevModPhys.29.454
12. Sean Carroll: Why Boltzmann Brains are Bad : 6 februari 2017 .
[arXiv:1702.00850v1](https://arxiv.org/abs/1702.00850v1)
13. David Eagleman: Motion Integration and Postdiction in Visual Awareness, *Science* , 17 march 2000, vol. 287).

