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Time - A Speculative Article and a Suggested View

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Abstract: This is a speculative article, not a scientific paper, about the time as interdisciplinary topic. I presented my view, in the light of current and brief findings in physics and psychology fields. I presented the “problem of time”, in the light of theoretical view; as we have no independent conception about time. We define time by comparing one standard motion against another. Human cultures also, emphasis on the present moment as everything, in spite of the ability of human brain to travel back and forward through the past and the future. Then, I suggested my view in the light of previous background; logically and philosophically. I suggested time as moment, as dependent definition, instead of attributing it to duration, succession or motion. In addition, I suggested replacing “moment-point” by “space-time”, all tenses are co-existing, and semi-blocked universe instead of blocked one, then the importance of this perception, in the light of my current suggested view.

Keywords: Time as interdisciplinary topic; Time in physics; Time perception; “Moment-point”, “Semi-blocked” universe, then importance of applying this view in our daily life.

1. Introduction

Although time is mainly a physical phenomenon, but many disciplines share interest about it. Since early civilizations, until now, many philosophers and human scientists, manipulate time topic as an essential part of our daily life component.

Many scientists agreed that, time stills not understood very well, compared to other fundamental concepts in modern physics. Among our scientific intangibles that shape our life, time is arguably the most elusive- and the most powerful (Evans, 2004).

Some ancient philosophies see time as a self-contradictory idea. Other philosophers and physicists, study the nature of time, and the philosophy of time travel with its logic implications. Maybe, the most popular debate about the time stills in the argument between time as an actual part of the universal system, or a hypothesis component coined by human cognition.

Although, many physicists recently confirmed that time is an essential, actual part of our universal system, but maybe the reason that keep the debate on is the way we view and manipulate the time topic.

Therefore, in this speculating article, I will try to present my view, in the light of current and brief findings in the field.

2. What is Time?

Time has been defined as a measure in which events can be ordered from past through present into the future. It is also the measure of durations of events and intervals between them (Dictionary.com, 2015).

3. Time in Physics

A- Classical Physics: (Newtonian Model of absolute time)

Around 1665, when Isaac Newton (1643-1727) derived the motion of objects falling under gravity, the first clear formulation for mathematical physics of a treatment of time began: linear time, conceived as a universal clock. Isaac Newton believed in absolute space and time. Absolute, true, and mathematical time, of itself, and from its own nature flows equably without regard to anything external, and by another name is called duration. Measurement of duration by the means of motion, which commonly used instead of true time; such as an hour, a day, a month, a year. This concept of absolute time suggested his model, in which he assumed that, time runs at the same rate for the all observers in the universe. Also, his concept, suggested one-way flow of time from past to future. Many everyday events seem to be irreversible; heat flows from higher to lower, people age and die, never rising from the dead and growing younger.

The principle fact that many physical events occur in only one time direction codified in physics as the second law of thermodynamics, which requires that the entropy of a system, must always increase or, at best, remain constant when that system is isolated from the rest of its environment (Mughal, 2009).

- Slowing of time in motion and gravity does not lead to disappearance into the past as should happen if there was block universe. Absence of time travelers from futuristic advanced civilizations is also against the concept of the block universe.

- The concept of origin of the universe in the Big Bang is at complete odds with the block universe view of time. If the block universe which is supposed to be laid out as a time-scope (from the past to the present to the infinite future) exists and began in big bang then it would mean that all of the time up to the infinite future would come into existence in the instant of the big bang. This idea is truly preposterous.

- Slowing of time in gravity and in motion as well as the ultimate speed limit c provides us the necessary clues to understand the cause of the phenomenon of time however we need to first convince ourselves that time is a process that is linked to motion and forces and the block universe view of time is not correct. (timephysics.com, 2015).

Albert Einstein, himself, once said: "Time is not at all what it seems. It does not flow only in one direction, and the future exists simultaneously with the past. The distinction between past, present, and future is only a stubbornly persistence illusion". (altanteanconspiracy.com, 2015).

On the other hand of this debate, some physicists still argue that time is not illusion, and manipulate it as an essential fundamental component of our universe. (physicsandphysicists.blogspot.com).

5. Time Perception

Time itself, for human, at least; as biological being, is not a sensual experience that one feels by any of h/her five senses. Human refers to time and in h/her perception means the present moment, mainly.

Time perception may speed up for living organisms through hibernation, where the body temperature and metabolic rate of the creature reduce. Extreme version of this is suspended animation, where the rates of chemical processes in the subject severely reduced. The brain's judgment of time known as highly distributed system; it includes at least the cerebral cortex, cerebellum and basal ganglia as its components. One particular component is the suprachiasmatic nuclei, which is responsible for the circadian (or daily) rhythm, while other cell clusters appear capable of shorter-range (ultradian) timekeeping.

Psychoactive drugs can impair the judgment of time. Stimulants can lead both humans and rats to overestimate time intervals, while depressants can have the opposite effect. The level of activity in the brain of neurotransmitters such as dopamine and neuro-pinephrine may be the reason for this. Such chemicals will either excite or inhibit the firing of neurons in the brain, with a greater firing rate allowing the brain to register the occurrence of more events within a given interval (speed up time) and a decreased firing rate reducing the brain's capacity to distinguish events occurring within a given interval (slow down time) (Carter, 2009).

Time perception refers to the way we perceive time as changes in events; so that, we perceive events and the temporal relationships among them. [Pöppel \(1978\)](http://Pöppel (1978) summarized human experience of time in these five components: duration, non-simultaneity, order, past and present, then finally, change. They are all aspects of time perception as a human cognitive experience.

Therefore, we perceive the motion. The motion occurs in the present moment, even the past, manipulated in the present moment, by connecting motions that occurs over intervals (Evans, 2004).

V. Evan suggested that, we talk about the time as we think, not as the time is. Time is an important a necessary dimension to our understanding of the world and our place in it. Investigating time represents the human conceptual system, with its problems in cognitive sciences. He argued that our experience of time included to our subjectivity. Time is not a unitary phenomenon restricted to a particular layer of experience. Rather, it constitutes a complex range of phenomena and processes, which relate to different levels and kinds of experience.

To his suggestion, Evan defined time as an internal subjective phenomenon related to the perceptual mechanisms that process sensory experience. Evan's definition of time is like a circular. Time is duration, duration is an interval, an interval derives from succession, and succession derives from duration: the loop is closed. In this formulation, these entire concepts entangled very tightly, that it is impossible to tell which one of them generates the others (Evans, 2004).

Arzy, S. and others, suggested in 2008 "mental time travel"; what they call (MTT), which refers to human conscious experience and ability to experience the present moment, recall the past and predict the future, or to "travel" back and forth in time. MTT for the past proposed to rely on episodic autobiographical memory, allowing one to re-experience one's personal past through the subjective "location" of the self to a specific

time and place that has previously experienced. Comparatively, thought for "episodic future thinking," or the ability to locate mentally the self- forward to pre-experience an event. Converging evidence from recent memory research suggests that re-experiencing and pre-experiencing an event rely on similar neural mechanisms. Similar strategies and the same brain regions found in imagining past and future events, as future predictions may base on past memories.

However, when changing the location of one-self in time to past or future, one does not only recall and predict, but one also changes h/her mental egocentric perspective on life events. They suggested in their study that self-location in time and space may share cognitive and neural mechanisms. They found in their study that MTT effect was always faster and more accurate for relative future than relative past events. It suggested that anteromedial temporal cortex area might play a key role in MTT, which based on similar cognitive processes.

Finally, they findings may summarize as:

- 1) Two independent components of MTT: Absolute MTT, which is the mentally imagined self-location in time (past, now, and future), and relative MTT, which is the relation between this temporal self-location and the experienced event (relative past or relative future).
- 2) MTT is faster with self-related than non self-related events.
- 3) Three brain regions suggested as recruited for self-location in time: the occipitotemporal cortex, contributing to MTT, mental imagery, and visual memory, the temporoparietal junction, which is a crucial region for self-related processing and self-location, and the anteromedial temporal cortex, a core region in memory and spatial processing. This network of regions indicates how MTT requires not only memory skills but also self-location and mental imagery elements. (Arzy, 2008).

Parapsychologists suggest that human abilities represent in extra-sensory perception; as clairvoyance, precognition, Psychometry, telepathy...etc. refer to continuum space-time; which is unbroken succession of events, they can, no longer considered as separated parts. They hypothesises that, the source of all aspects of psychical abilities; extra-sensory perception (ESP), and mind-over matter (PK), is what Myer called “subliminal-self”, this self does not exist in time, it is dimensionless (Ireland, 2010).

We cannot separate time and space, to their suggestion. Instead, they form a matrix called space-time, because the past, the present and future all coexist, foreseeing the future becomes possible. However, in this model the future may change by exercising the free will. Our universe is multidimensional and highly interconnected. These connections and other dimensions are not readily apparent in our usual state of consciousness, during which our inner and outer worlds appear separated. They suggest that, the worlds are all contiguous; they also interact in a dynamic process of mutual influence (Powell, 2009). Some parapsychologists, also, suggest that being under any condition that produces a tense may increase psychic sensitivity, (Parra, 2011) that delete the barriers among places and present, past, then future.

After many experiments, with odds against chance of 1000 to 1, parapsychologists found that our minds in (ESP) experience; like presentiment, are constantly and unconsciously scanning our future and preparing to respond to it. Our minds perceive the future, not only infer it (Radin, 2005).

Physicist David Bohm once said that, our consciousness exists outside of time/space/matter, in an explicit hologram. Therefore, under the right conditions human has the ability to access and experience anything in the implicate order. He added; when people dream of accidents, they may not take a plan or a ship. He suggested that, this may not be the actual future that people saw, but there is some implicate thing in the present and moving toward making that future. So, the coming events cast their shadows in the present, and their shadows are being cast deep in the implicate order. (altanteanconspiracy.com, 2015).

6. The suggested View

If we acknowledge for the sake of argument that time is physical matter, what arouses our interest as psychologists is the way we perceive the time, human cultures dealt with time as age; in proverbs, we say, time is gold. This metaphoric background refers to the way us emphasis on the present moment. We perceive the present moment as everything, as the only or main fact, so that, the past has gone, we cannot retrieve it, while the future does not come yet.

From this prospect, as human sciences got benefit from physics, mathematics and biological sciences, human sciences may also benefits such sciences, as vice versa. Human frontiers, talents and extra-sensory perception showed that one might perceive past and/or future now, in the current moment. Not only parapsychologists, but also neurologists, referred to such human ability, as they called “time travel” phenomenon. Therefore, this finding, that proved many decades ago, pointed at something else we perceive in the current moment, rather than now. In addition, our perception to the now moment is a relative thing, that affect by many factors; like perceiver age, health, normalcy. So that, one may perceive duration faster than the other, and one may perceive h/her future in the present moment, while the other concentrates mainly and only on the right now.

Therefore, on basis of such logic, I may suggest that:

- Past, present and future may all coexist, as the human mind can reach any moment under special circumstances, and factors, as mentioned above.
- When we define time, we always attribute it in the light of something else; as duration, motion, succession.
- In the light of the previous point, we may redefine time as an independent phenomenon, if we postulated, with some modern physicists, that time is a real physical phenomenon. If time is not duration, motion, and succession, what will be the time then? To what extent, does this attribution refer to human perception more than the time itself?
- If we speculate on what parapsychologists prove and describe as mind scanning the future, the blocked universe perspective may fall down. To clarify this, we take an example- see; Tylor (2014) of a woman who dreamed of a chandelier falling in her baby’s bedroom and killing the baby. As a result, the woman took the baby from the bedroom, so that the chandelier fall without harming the baby. The sleeper here perceived an alert, and felt a danger that arouses her instinct of immortality “here in her baby’s life” as a mother, so she perceived the future in the present moment as a dream. If we postulated that, the precognition is the falling chandelier, we cannot put a full stop to refer to the pre-determined universe. As the story, did not end; the woman interact with what she perceived

she prevented her baby from the danger, and prevent her miserable fate. It is not a block universe then, there is continues communication among all beings, which allow – only if we pay attention to – reshape the fixed model somewhat. So, it maybe a semi-closed universe, a half-blocked one. The events already existing, but when we pay attention to, under some conditions, we may improve our reality into better one. It is not the matter of free will that facing forced, pre-determined life. Instead, it maybe the matter we become aware of, conscious, to our life, the way we perceive events and interact to. Mind over matter or (PK), refers to Psychokinesis, the ability of healing, the hundreds of experiments done by Dr. D. Radin and Dr. Roger Nelson, using meta-analysis to hundreds of experiments did through decades, with odds against chance beyond a trillion to one. Then global consciousness project (GCP) – (Xiong, 2010) all refer strongly to the possibility of this interaction, then not closed, pre-determined system, not as completely opened system, rather as semi-closed one.

- Is there space-time continuum then? We attribute time to events, duration, and succession; past, present then future, then found that, they might all exist at the same moment, depending on the factors that affect the perceiver, what about the space, then? If we talk about the space as interval or distance between two or more objects, then we hypothesize in quantum theory that we all entangled, as completely whole one, with no distance, where will be the space then?

- If there is a time – as some modern physicists suggest- time maybe a moment; as independent definition, apart from all attributions of events, motion, duration and succession. Time is moment, and this moment maybe long, short, near, or far, backward or forward, up to perception process' factors. In addition, if we are all connected nonlocality, and everything entangled, there will not be a space, there will be, for example, a giant net, a deep hidden order that connect everything, everywhere. So that, there will be points alerted everywhere along this giant net. When right moment meets right point, progress, success, and construction happens. There for, we may replace “moment-point” by “space-time”. In an exact moment at exact point, creation happens, change occurs, and collapse falls. Exact moment meets exact point always in this whole, global, giant and totally connected net.

Exact moments meet exact points, and shape so vital interaction, that we may participate in harmony, when we became aware of this communication. So, if we perceive the life, the universe, as multidimensional, wholly connected, all one, so flexible; semi-blocked, and has continuous conscious interaction, from all and multi-directions, not only one-way direction, and generalize this on all -not only social, psychological phenomena- but also natural one, we will gain positive, optimistic, vital, and more peaceful life. We have to concentrate on moment, with relaxed background that we can retrieve things; we can utilize the moment consciously, without worry, if we practise how to take decisions in right moment at right point. Time then will be for us, with us, not against us, as fever race. Time will be, apart from anxiety, we will enjoy our life; we will invest our ages, when we become in harmony with nature; that aims consciously to balance, in each moment, at each point. Our consciousness then will be more positive, and more constructive.

Time is one of our tools to adjust life, and if we reshape our perception, consciousness, we will gain life that is more relaxed, helpful and fruitful.

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