ENSEMBLE
A bi-lingual peer reviewed academic journal
ISSN: 2582 - 0427 (Online)
Vol. 2, No. 2
September, 2020
http://www.ensembledrms.in

Article Type:
Article Ref. No.: 20070800239TF
https://doi.org/10.37948/ensemble-2020-0202-a007

THE UNREALITY OF TIME: A CRITICAL ANALYSIS

Sadiya Afrin[1]✉

Abstract:

The problem of the metaphysics of time is whether the time is real or unreal. This paper will introduce some of the major positions and arguments concerning the unreality of time. We all know the external world is constantly changing. 'Change is the only constant in life'. We get trapped in the illusion of time and space. But in reality, the past isn't here anymore, the future yet to be seen, only the present moment seems to be real. But present time also flies or passes away very rapidly. Whenever we try to grasp it, it slips away. Before discussing the unreality of time, it is necessary to mention that we will deal with the 'experience of time' in this chapter. The mathematical or physicist concept of absolute time would not be discussed here. Firstly, 'Motion is impossible' would be discussed from Zeno's paradox, followed by an effort to connect it with McTaggert's argument on 'Unreality of Time'. Then presentism and eternalism would be discussed in reference to the unreality of time.

Article History: Submitted on 08 Jul 2020 | Accepted on 13 Feb 2021| Published online on 26 April 2021

Keywords: Change, A- theory, B-theory, Presentism, Eternalism, Reality

1.0 Introduction:

The concept of change and time is inseparably related. The difference between change and time is that events in our experience that change can be perceived directly, but for time it does not. Actually, we extract the idea of time from change. Now, the question is whether time is ontologically independent of our thought or experience of time. If there is no living being to experience time, what would be the reality status? The question can be presented another way, are all temporal experiences of object illusory or our mental construction or actual fact? If we look at our mental state, we can see what is in our memory, we call it past; what is in our perception, we call it present and what we expect to be happen, we name it future. So, one can say, these time distinctions are nothing but ideas. We can call it subjective reduction[1]. Subject In that sense, time would become subjective. If time and temporality (past, present, future) are psychological, then temporal becoming is also psychological. This theory leads us to realize the timeless entity (in Indian philosophy, Advaita Vedanta believes in this kind of theory).

1 [Author] ✉ [Corresponding Author] Assistant Professor, Vivekananda Satavarshiki Mahavidyalaya Manikpara, Jhargram, 721513, West Bengal, INDIA. E-mail: sadiya.afreen88@gmail.com

There are metaphysicians who tried to prove the unreality of 'world-appearance'. In the ancient period, some Greek philosophers raised their voices against the reality of time. Zeno was one of them (Salmon, 1970). We understand time by the reference of change. But, Zeno did not accept the change. So, He refutes time.

Zeno was the student of great Eleatic philosopher Parmenides who believed in the unchanging oneness and denied multiplicity, motion, and change (Dowden, 2021). To him, these are only appearance. Zeno, like his teacher, also tried to prove by logical means that change (motion) is impossible (Salmon, 1970). We know his arguments from the writings of Plato and Aristotle as none of Zeno's writings have survived.

In Aristotle's words: "We may say a thing is at rest when it has not changed its position between now and then, but there is no being at rest. Both motion and rest, then, must necessarily occupy time'' (Hardie and. Gaye, 1994).

By analyzing Zeno's arguments, we get a thought regarding our picture of the world. These arguments illuminate our worldview. On the other hand, another eminent contemporary philosopher, J.E. Mc Taggart (1988), also tried to prove the unreality of time in the second chapter of his book 'The Nature of Existence'. Mc Taggart said that the events of time, as observed by us, form an 'A' series and 'B' series (it will be discussed later in detail) (Fig. 1). Philosophically it is important to know that between the 'A' series and the 'B' series, 'A' is more fundamental to grasp time. Mc Taggart provides arguments that there can be no time without change, and change is expressed through the 'A' series only. But he also examined the 'A' series and proves that the 'A' series leads us into self-contradiction and infinite regress. On the other hand, if we accept the 'B' series, it will lead us to fallacy of subjectivity.

So, if we analyze the arguments of McTaggart (1988), we got the new dimension regarding the nature of time. For example, whenever we are trying to prove the unreality of time we got two different alternatives about the nature of time- either we have to accept time similar to space, or we would remain satisfied only by subjective explanation of time.

Now the philosophical question is which one is the better option to explain time as existent. If we accept the first alternative, then we have to deny the continuous notion of time. On the other hand, if we choose the second alternative, we would not have an objective explanation of time. But if we consider any alternative, the traditional notions of time get changed. We have to move from the general ideas of time.

2.0 Zeno and the impossibility of motion:

Zeno introduced four paradoxes i.e., Achilles paradox, the Dichotomy paradox, the Arrow paradox, and the Stadium paradox (Salmon, 1970). Among these four paradoxes of Zeno, here we will discuss the Arrow paradox briefly as it is significant and relevant to our content.

2.1 Arrow paradox

'If everything when it occupies an equal space is at rest and if that which is in locomotion is always occupying such a space at any moment, the flying arrow is therefore motionless at that instant of time'. -Aristotle, Physics (Hardie and. Gaye, 1994).

[1] 'Reductionism is a view that asserts that entities of a given kind are identical to, or are collections or combinations of, entities of another (often simpler or more basic) kind or that expressions denoting such entities are definable in terms of expressions denoting other entities' Encyclopedia Britannica, 2020). 'Subjective reductionists are those who take one theory or phenomenon to be reducible to some other theory or phenomenon' (Ney, 2021).

In the Arrow paradox, Zeno states that, to occur the motion, an object has to change the position which it occupies already (Salmon, 1970). He says that, the arrow is neither moving to where it is nor to where it is not, because no time elapses for it to move there. In other words, at every instant of time there is no motion. If everything is motionless at every instant, and time is entirely composed of instant, then motion is impossible. If we want to simplify the Arrow paradox, we get the following premises (Hobbs 2017) -

1. Anything occupying a place just its own size is at rest.

2. In the present, what is moving occupies a place just its own size.

3. In the present, what is moving is at rest.

4. What is moving always moves in the present.

5. What is moving is always throughout its movement at rest.

Hence, the conclusion is the flying arrow is at rest. Aristotle said this paradox only works if you regard time as composed of now (present).

To prove the impossibility of movement, Zeno argued that when we throw an arrow, we see its movement, but logically it is not moving (Salmon, 1970). The arrow is in its own place at rest. But if time is infinitely divisible as he mentioned in his dichotomy and other paradoxes, to reach the destination the arrow has to fly the total distance and if it has to fly the total distance, it has to fly the half of the total distance. Then, if it tries to cover the half distance, it has to cover the half of the half distance. And it will lead us infinite regress. To Zeno, the distance is nothing but collection of some spatial points. In each moment arrow occupies a certain space. It never moves from that space. The problem is that the arrow is motionless in the smallest instant of infinite time-segment. Let's assume that the arrow occupies A1 space at the moment of t1 time. Therefore, there is no chance to occupy the A2 at the moment of t1 time. So, the flight of the arrow is motionless.

Let's try to answer in a different way. Here the question is what do we understand when we call something as 'motion'? Or what do we mean when we say 'an arrow is flying'? One can say when an arrow is flying that means the arrow occupies continuous series of places at the continuous period of time. So, we have to understand motion by certain space –time bound relation. Motion is nothing but continuity of space as well as time. If motion is a functional relation between time and position, then motion consists solely of the paring of times with positions.

A. J. Ayer (1936) tried to identify Zeno's problem and he said that motion is not impossible to mathematicians. They claim that Zeno did not know the infinite series theory. The faulty logic in Zeno's argument is often seen in the assumption that the sum of an infinite number is always infinite, when in fact, an infinite sum can be mathematically shown to be equal to a finite number. Finite sum is possible in the context of infinite Geometrical progression. But the problem does not lie here. Everyone knows that the faster one's move can catch the person who moves slower than him. But to Zeno, the problem is 'what is the metaphysical explanation of the event?'

In his book, Zeno's paradoxes, Wesley C. Salmon (1970) propose a solution of time-motion problem:

> ''…if motion is a functional relation between time and position, then motion consists solely of the pairing of times with positions. Motion consists not of traversing an infinitesimal distance in an infinitesimal time." ' …… The question, how does an object get from one point to another, does not arise. Thus Russell was led to remark, Weierstrass, by strictly banishing all infinitesimals, has at last shown that we live in

an unchanging world, and that the arrow, at every moment of its flight, is truly at rest. The only point where Zeno probably erred was in inferring (if he did infer) that, because there is no change, therefore the world must be in the same state at one time as at another. This consequence by no means follows….''

3.0 Mc Taggart and the unreality of time:

Our external world is moving and changing continuously. We think that time passes as our experience tells us so. Time passes from one movement to the next. According to Mc Taggart (1908) by which theory time passes is called "A-Theory" and by which it is not, is called "B-Theory". We can construct the formulation of McTaggart reasoning in that way:

- Time essentially involves change.
- Change can only be explained in terms of A-series expressions.
- A-series expressions involve contradiction and so cannot describe reality.
- Therefore, time is unreal.

We can describe one event in time through A-series and B-series both but differently. When one event in time running from the far future through the near future to the present and then from the present to the near past and distant past is called A- series (Fig. 1). Some philosophers describe pastness, presentness and futurity as basic properties of time. In B-series, two events describe as if an event ever is earlier than other events it is always earlier than later (Fig.1). The basic difference between the two series is in A series events are changing their position constantly and relatively but in B-series it is fixed, they never change their positions (Prosser, 2016). We can say other way that A-series is tensed but B-series is tense less.

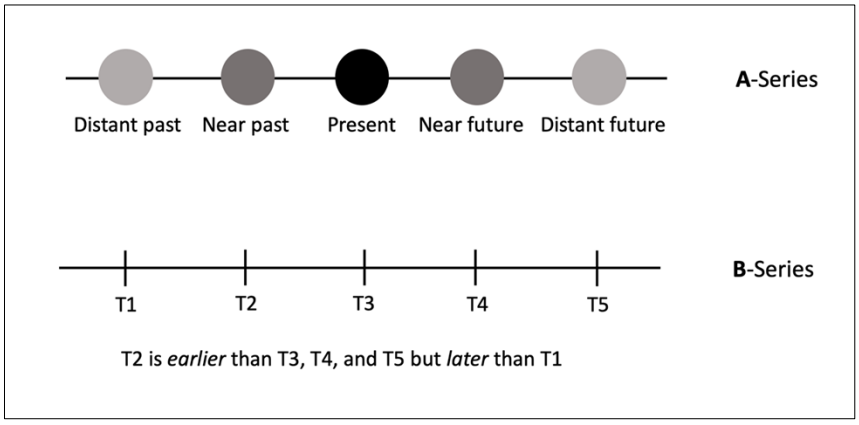

Fig.1: Mc Taggart's 'A' series and 'B'-series (Source: Author's perception)

To Mc Taggart (1988), A-series is more foundational. A-series actually constitutes the passage of time. He said that we cannot understand the nature of time through 'B' series as we cannot grasp change through 'B' series. If followers of B series admit that B series can constitute time without A series, then change must be possible without A series. Now the question remains what is change for the followers of B series? If one says that the change consists in B series, then Mc Taggart's (1988) answer is that is not possible. If July is earlier than August and later than June, it will always be, and has always been earlier than August and later than June, since the relation of earlier and later are permanent. Therefore B- series cannot express change. So, 'B'- series is not sufficient for understanding time, since time involves change and without A- series there would be no change.

First of all, Mc Taggart (1908) provides arguments to establish that there can be no time without change (Ingthorsson, 1998). Firstly, he examined that B series cannot grasp change. Then he proves that 'A' series which expresses change, is unreal. Therefore, time cannot be real.

Now we are going to discuss Mc Taggart's arguments against the reality of A series. He says that if we accept A series then we will fall in Self–contradiction or Infinite regress. The determinants of the A series are characteristics of events. In other words, events are either past or present or future. If moments of time are taken as separate realities, we can say that they are also past, present or future. Characteristics may be either a relation or a quality. Mc Taggart holds that whether we take the determinants of the A series as relation of events or as qualities of events, in every case they involve contradiction.

Mc Taggart (1908) says past, present and future are incompatible determinations. Every event must be one or other, but no event can be more than one. If we don't accept the incompatibility of the determinations of A series, the A series would be insufficient to explain time. Time involves change and this change we grasp from the experience of future to present and from present to past (Datta, 2019). Therefore, the characteristics are incompatible. But every event has these characteristics. So, the possession of these incompatible characteristics by a single event leads to contradiction.

One can answer to the above problem as the characteristics are only incompatible when they are simultaneous and there is no contradiction to this that each term has all of them successively.

If we say an event is present, it has been future and will be past. If we analyze this sentence we will get–

- E is present at the moment of present time.
- E is future at the moment of past time.
- E is past at the moment of future time.

Mc. Taggart (1908) says that this explanation involves circularity. For, it assumes the existence of time in order to account for the way in which moments are past, present and future. So, we presupposed time to account for A -series. But here, we assumed A-series in order to account for time. So, we are in circularity as A series has to be presupposed in order to account for the A series.

The difficulty can be presented in another way, in which the fallacy will be vicious infinite series. If we consider moments of time as separate reality then we have to say moments are also past, present and future. Then we have to say a moment is present, it has been future and will be past. That means–a moment M is present at the moment of M1 present time, M1 is past at the moment of M2 future time. M2 is future at the moment of M3 past time and if it continues, we will be in infinite regress. If we avoid the incompatibility of the three characteristics by constructing a second A series within which the first falls, then the meaning of this assertion will be–time is in time. Then the second A series will suffer from same difficulties as the first and this can only be removed by placing it inside a third A series. The same difficulties will occur in the third and the forth and so on. So, the problem will remain same.

Therefore, the conclusion is that the application of A series to reality involves a contradiction. So, A series cannot be true of reality. As time involves the A series, it follows that time cannot be true to reality. Whenever we try to judge anything to exist in time, we get an error or difficulty. And whenever we perceive anything which exist in time, are not really exist.

Now, let's try to solve the problem of Mc Taggart's A- series. A. J. Ayer (1936) tried to face the problem and tried to solve this problem in two different ways–

- If we reduce A series into B series then the problem will not be arisen. But then another problem arises i.e. it will be difficult to differentiate time from space.
- The problem could be solved if we understand "being present' by "occurring now" in the place of event. But there will be another problem that demonstrative property becomes subjective.

A.J. Ayer (1936) said in the first argument that if we reduce 'A'- series into 'B'- series then we can avoid the fallacy of contradiction and infinite regress. For 'B'- series don't face these criticisms.

But the problem is we have to understand past, present and future event as earlier and later event. If we take Indian presidency as an example– the event of the presidency of APJ Abdul Kalam is earlier than the presidency of Pratibha Patil. Both of these events are later event of India's independence. But now the problem will be that we would not grasp the continuity of time or flow of time. We would not be able to differentiate time and space. Time and space will be similar to each other as the events become unchanged and static. The second argument was if we consider presentness as a demonstrative property except as a descriptive property of an event, then the problem could be solved (Falvey, K. 2010). If presentness replaced by occurring now, we don't have to find the locus of presentness. For, at the moment when we utter the word 'now' the meaning of 'now' is quite clear. Therefore, the fallacy of infinite regress and contradiction will not be arisen. But if we try to solve the problem that way it will lead us into the fallacy of subjectivity as we are asserting event subjectively.

4.0 Presentism and Eternalism:

If A series is followed, then the existence of present time can be derived exclusively. But the question is does this experience of present time give us any clue to contemplate whether present time has any special metaphysical status? Some says presentism is not compatible with the concept that time really passes as it accept the reality of what is present only. To make it simpler, usually passage of time is conceived through – the present is approached by the future and past is approached by the present. But this idea of temporal passage doesn't go with the presentism. If we want to support presentism we have to deduce something different for explaining the passage of time.

In modern time, A-theory is most popularly represented as Presentism. Presentism is also known as Nowism. According to presentism, only the present is real neither the past is real nor the future (Emery et al. 2020) (Fig. 2). Presentism thus differs significantly from other theories of time. Instead of A-qualities, presentists differently deal with the past and future. Examine some proposition, 'The apple is falling from a tree'. If the apple is falling now, then the truth about the world is simply that the apple is falling. If the same event is in the past or future, however, then reality does not contain the state of affairs that the apple is falling. Rather, it either will, or did, contain that state of affairs. This can be formalized using the PAST or FUTURE operators of tense logic, as follows: if the apple was falling then PAST (the apple is falling), or if the apple will be falling then FUTURE (the apple is falling).

Presentism has the disadvantage that it is incompatible with our everyday experience. It cannot avoid a general objection that there are some true premises about the past and future (Emery et al. 2020). For example, 'Rabindranath Tagore got noble in the past'. This sentence can only be true when the past is real. And in reality, Rabindranath Tagore got noble in the past. But if we consider presentists' claim that past and future are unreal, this sentence would be false. Another criticism against 'present things exit only' is that the use of the word 'exist' is ambiguous. And if it is ambiguous then presentism would be false. Following three premises could be derived from Presentism-

- Only present things exist now.
- Only present things exist in the present, existed in the past and will be exist in the future.
- Only present things exist absolutely.

If these three premises represent presentism then one can argue that first premise is inconsequential. And Second and third premise is false. Therefore, presentism is either inconsequential or false. But discussing elaborately the supportive arguments and refutative arguments of presentism is not our concern here.

There is another theory, eternalism in which past, present and future is equally real (Fig. 2). According to this theory the present or 'occurring now,' or temporal now is just like 'spatial here' (Emery et al. 2020). Regarding temporal ontology, presentist and eternalist have different opinion. Presentists claim that only present things exist but to eternalist past and future things like extinct animals and man on moon exist too. There is no objective flow of time. It won't be incorrect if we say presentism refuse the existence of 'a-temporal' or timeless entities. On the other hand, Eternalism also failed to account for the passage of time and change.

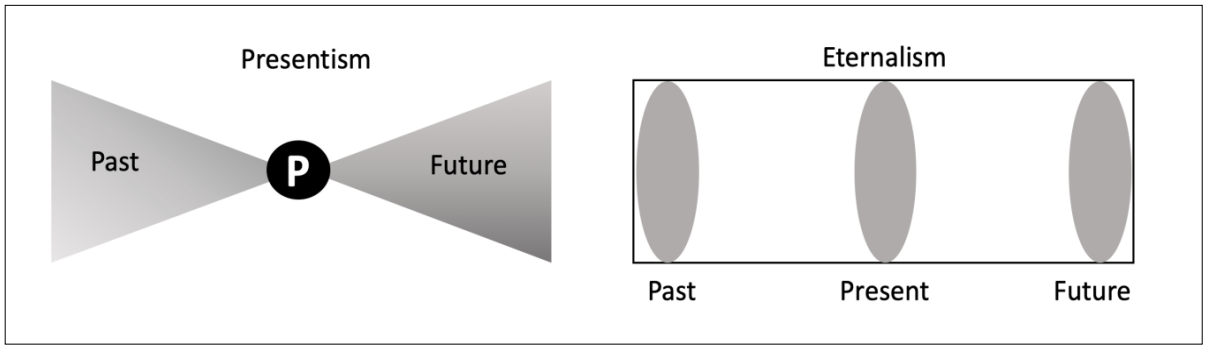

Fig. 2: Presentism and Eternalism - Presentism is the view that neither past nor future exist but only present exist, whereas eternalism is the view that past, present and future are equally real. (Source: Author's perception)

The B-theory is an ontologically eternalist theory. There is no objective present time, and no passage of time in B theory. Some B-theorists say that the B-theory does postulate passage, but by 'passage' they usually mean only that time has a direction and ordering according to the 'earlier' and 'later' relations.

5.0 Conclusion:

Mc Taggart agreed with Zeno at one point that the world-appearance i.e. the transformation of everything is in time is self –contradictory. But, Mc Taggart didn't try to extract contradiction from our conception of change and motion. Rather his argument was about how time can be understood of itself and to find out the flaws in debates about the reality of time. There is a difference between Mc Taggart's argument about 'B'-theory and the arguments given by 'B'-theorist. This difference found in the fact that to Mc Taggart, 'Dynamic change' is indispensable property to time and 'A'-series is indispensable property for 'Dynamic change'. We know according to 'B' theory, time is real but it also fails to explain the 'Dynamic change' or 'Passage of time'. Although this hasn't created any problem, because to Mc Taggart, 'A'- series is also inconsistent, so, time is unreal. One can consider time as a dimension-less instant. If the present (now) is a dimension-less moment, what is the present? Present could be a dimension less dividing line between past and future. The illusion of fragmented time-view is somehow generated by facts about the parthood relations obtaining between false perceptions, but how exactly this illusion is generated? This question may have an answer i.e. our experience; but the answer is not satisfactory to our intelligence. From the above discussion, we gained an insight on the nature of time and perception of time passage. It would enable us to think differently from conventional assumption about time.

References:

Ayer, A. J. (1936). Language, Truth and Logic (London: Gollancz, 1936). Philosophy in the Twentieth Century.

Britannica, The Editors of Encyclopaedia. "Reductionism". *Encyclopedia Britannica*, 28 Feb. 2020, https://www.britannica.com/topic/reductionism. Accessed 2 February 2021.

Datta, M. (2019). Does a Philosophical Probe into Our Experience of Temporal Passage Determine Its Status? *Axiomathes*, *29*(1), 5-16.

Dowden, Bradley (2021). Zeno's Paradoxes. *The Internet Encyclopedia of Philosophy*, ISSN 2161-0002, https://iep.utm.edu/zeno-par/

Emery, N., Markosian, N., & Sullivan, M (2020), "Time", *The Stanford Encyclopedia of Philosophy* (Winter Edition), Edward N. Zalta (ed.), https://plato.stanford.edu/archives/win2020/entries/time/

Falvey, K. (2010). The view from nowhen: The mctaggart-dummett argument for the unreality of time. *Philosophia*, *38*(2), 297-312.

FitzGerald, J. J. (1965). Commentary on Aristotle's Physics. *The New Scholasticism*, *39*(2), 261-264.

Hardie, R. P., & Gaye, R. K. (1994). Translation of Aristotle, Physics. MIT Internet Archive. http://classics.mit.edu//Aristotle/physics.html.

Hobbs, Angie (2017, Feb 14). Zeno's Paradoxes: The Arrow. The University of Sheffield Library. Retrieved from https://www.youtube.com/watch?v=IPNttsu8x24

Ingthorsson, R. (1998). McTaggart and the Unreality of Time. *Axiomathes*, *9*(3), 287-306.

McTaggart, J. E. (1908). The unreality of time. *Mind*, 457-474.

McTaggart, J., McTaggart, J. M. E., & McTaggart, E. (1988). *The nature of existence: Volume 2* (Vol. 2). CUP Archive.

Ney, A (2021) "Reductionism", *The Internet Encyclopedia of Philosophy*, ISSN 2161-0002, https://www.iep.utm.edu/, retrieved February 2, 2021.

Prosser, S. (2016). *Experiencing time*. Oxford University Press. DOI: 10.1093/acprof:oso/9780198748946.001.0001

Salmon, Wesley C., ed. (1970). Zeno's Paradoxes, The Bobbs-Merrill Company, Inc.: Indianapolis and New York. Reprinted in paperback in 2001.