Philosophy of Time

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This paper is about the theories regarding the reality of time. It specifically defends the Dummett-McTaggart thesis that time is unreal. It proves that time is a man-made concept for an artificial phenomenon rather than a naturally occurring phenomenon. This study proposes a new version of the Dummett-McTaggart theory in which time and space are intertwined. It demonstrates the connection between time and space by describing experiments executed in the past. It also defines other laws of the universe and relates them to time. This illustrates how the concept of time does not connect to a full description of reality. By doing this, this paper effectively persuades the reader that time does not exist.

Keywords:
Indexicality, Physics, Time

The philosophy of time is a complex and interesting area of study that has fascinated philosophers for centuries. The concept of whether or not time exists and why have been the subject of much debate and speculation. One of the most fundamental questions in the philosophy of time is the nature of time itself.

There are several different theories that attempt to explain what time is and how it works. The one that will be discussed below is from the Dummett-McTaggart theory along with Lowe's critical discussion on this theory.

McTaggart, the philosopher who came up with the fundamental theory that the others are based on, concluded that time does not exist using these premises:

"P1: Time essentially involves change
P2: Change can only be explained in terms of A-series expressions.
P3: A-series expressions involve contradiction and so cannot describe reality
P4: Therefore, time is unreal"(McTaggart 1908).

McTaggart's first premise that time essentially involves change is proven false when he looks at an object "moving" through the past, the present, and the future. He started by introducing two events: event N and event M. He derives event M as an event that occurs before event N, and therefore, event M must always come before event N. If event M is occurring in the present, this event was previously in the future and will be in the past soon. Since event N is after event M, when event M is in the present, event N is in the future.

McTaggart states that since you can say ***was*** in the ***future*** and ***will be*** in the ***past***, the A-Series seems to involve a contradiction because the events have conflicting temporal properties. The problem is the tensed forms of is, was, and will be. He argues that we have nine predicates instead of three, for example, will be past and was future. Dummett agrees with McTaggart's view on the A-series that there are nine second order tenses and that if there is a threat of contradiction in the first level, it cannot be evaded merely by moving up a level. These nine second order tenses are: the present from the perspective of someone in the present, the future from the perspective of someone in the present, the present from the perspective of someone in the past, the past from the perspective of someone in the past, the future from the perspective of someone in the past, the present from the perspective of someone in the future, the past from the perspective of someone in the future, the future from the perspective of someone in the future.

Time must involve change which only comes in connection with facts of the kind. The Dummett-McTaggart theory argues that time involves change because time is tied to our experience of events transitioning from the past, present, and then future. McTaggart-Dummett's suggestion is that we make "was" pure and tenseless. This is the same with all the other tenses. He uses the sentence "I will have finished my paper by next Tuesday"(Dummett 1960). This uses the past perfect tense which is like saying the paper will be finished in the past in the future.

Dummett discusses the view from nowhere. It is, "a conception of reality corrected for the special situation or other particularity of various observers" (Dummett 1960). He argues that in reality, the tenses overlap allowing for the past, present, and future to overlap. Since they overlap, time must be unreal. He uses the example that Nancy Reagan's astrologer said in 1984 that her husband will live for another 20 years. A schoolteacher tells her class in September of 2009 that Ronald Reagan died 5 years ago. While both facts were true at the time they were

spoken, those two sentences contradict each other in the present. Since these two sentences are contradictory, presentism does not apply, for that would entail that the astrologer does not currently exist, so her judgments present no problem. We can state that it is true now that 25 years ago President Reagan still had 20 years to live. McTaggart does not consider presentism to be a viable metaphysical theory of time. McTaggart considers it an evident property of temporal reality that it must create a B-series, in which all occurrences in the field of the previous connection are equally real. His solution to this is to claim that Reagan died tenselessly, 20 years after 1984 and 5 years before 2009, therefore allowing for those two sentences to not contradict as it is now tenseless.

According to Dummett, the unreality of time cannot be disregarded as an indexical fallacy. He believes that McTaggart's first and second premises are both uncontroversial. Additionally, he believes that P2 is false because the second part of McTaggart's argument retains its interest as an argument against the reality of tense. For these reasons, he created these premises:

"D1: Time essentially involves change.
D2: Change can only be explained in terms of A-series expressions.
D3: A-series judgments cannot be understood except in relation to a point of view.
D4: What cannot be understood except in relation to a point of view cannot figure in a complete description of reality.
D5: Only what can figure in a complete description of reality can be said to describe reality at all.
D6: Therefore, time is unreal." (Dummett 1960).

Unlike Dummett, Lowe disagrees with McTaggart's argument. However, Lowe does agree with Dummett in McTaggart's mistake in the logic of indexicality. By saying that an event is present, past, and future, it is contradicting each other. The logical way to say it is if e is a future event, e will occur and if it occurs, it will be past. He agrees with McTaggart's first and second claims but disagrees with three and four. However, he does not accept that change is to be explained in terms of A series expressions.

Lowe argues that McTaggart's argument is flawed because it overlooks the clear properties of token-reflexive expressions. These expressions allow a sentence to have different truth values depending on when it is spoken. Lowe objects to McTaggart's first premise, which implies that two incompatible predicates might apply to the same object. In essence, he claims there is no conflict meaning the A-series applies.

Lowe states that every place can be referred to as more than one term at any given moment. For example, if person M is at Disneyland and person N is in Florida, person M would refer to Disneyland as "here" while person N would refer to Disneyland as "there". For person M, Disneyland would be "near" while for person N, Disneyland would be "far". Since "here" and "there" and "near" and "far" are contradictory terms, calling a single location both would make no sense. Lowe's problem with McTaggart's argument is that he repeatedly contrasts time and space. McTaggart also states that events taking place in space are impossible unless temporally token-reflexive expressions enter into it. If M could observe all the events that take place in our universe, M cannot describe all of their observations without using the token-reflexive expression. If we imagine M as an observer of static-dimensional configuration, one dimension of which represents time, we can now describe M's observations as a model of the sequence of events itself.

Lowe's argument is divided into two parts. In the first part, he is trying to prove that there would be no time if there were no facts of any kind. He agrees with McTaggart that time involves change and proves that change is possible only if there are facts of the kind.

In the second part, he tries to prove that the existence of facts of kind involves a contradiction. Part two fully depends on part one meaning part one must be a strong foundation in order for part two to have a strong argument.

Lowe describes time as a fourth-dimension. He describes this as a two dimensional object moving through a glass three-dimensional object, such as a cylinder. If we replace the cylinder and the two-dimensional object with their analogues in four-dimensional space, we get something like how we think the world must be like. While we won't see the three dimensions a lot, if we look in a passage to it, it will no longer be static and we will need token reflexive expressions to report what he observes.

In reality must something of which exists in principle of complete description? If we are asked to describe something, we will describe it without the angle and as if it were in space. McTaggart's argument is stating that since there are different perspectives of one event, time moves differently to all viewers of that event. In order for an event to exist, all perspectives must be the same. McTaggart's argument shows that we must abandon our prejudice that there must be a complete description of reality. Therefore, he agrees time does not exist.

One significant difference between time and space in relation to the problem of change may be that we cannot select when we are, while we can choose where we are. While it is true that the same temporal perspective cannot be taken in multiple distinct places by the same person, the spatial order in which temporal perspectives are adopted by the same people is a matter of choice. Every path is both a path through space and a path through time, with space being the where and time being the when. Routes are simply sorted in space-time position sequences. The difference between space and time is that the order of temporal positions will be the same regardless of which path a person takes. One issue with this is that it makes time but not space the dimension of change or flux, even though it may appear to do so without using A series expressions. If this is the case, McTaggart's claim 2 is invalid.

My argument for why time is unreal starts by looking at the laws of our universe. In order for anything in reality to exist, it must follow certain rules. For example, gravity is a fundamental force that controls the behavior of objects with mass. Without gravity, the structure of our universe would be drastically different with objects being unable to attract or interact with each other. The existence of gravity and its rules allow planets to orbit around stars, objects to fall to the ground, and people to stay within Earth. Without the rules of gravity, we would have no way to predict how objects will react. If an object with mass on Earth's surface flew sideways when no outside force was acting upon it, we could argue that since the object did not follow the rules of our universe, it is a) a massless object, b) an outside force propelled it sideways, c) the object itself does not exist, or d) gravity does not exist.

Of course, it is hard to argue gravity does not exist since every other object follows the laws of gravity. For instance, if you come up with a math rule like the pythagorean theorem ($a^2+b^2=c^2$) and argue that this equation works for every triangle but find that there was one set of numbers that followed the criteria written above and proved false, you could argue one of two things:

1. One set of numbers proves this equation false therefore the formula does not work.

2. The formula is true but you must make the criteria more specific where it excludes that certain set of numbers that includes the rest that work.

In both of these potential arguments, it shows that the formula or “rule” is false since there is an exception. I am trying to prove that time does not exist since there are instances when time does not follow the rules of our universe. More importantly, that you cannot make the criteria specific enough where it includes all other instances but this one. My premises are shown below:

1. Everything in the universe must follow at least one rule.
2. Time does not follow a rule.
3. Therefore, time does not exist.

By stating that everything must follow at least one rule, we are showing that if an exception can be found and the object follows that rule, it exists.

If an exception to a rule does exist, the exception must follow a different rule. Time is different because it breaks the rules of the universe and does not lay under any of the current rules made. Of course we could argue that the rules have not been discovered yet and no formulas have been made. However, the concept of time is such an intriguing concept that has allowed for many other formulas and equations to be made. If we are proving that time does not exist, does that also prove that these equations are unreal as well?

I argue that the reality of time and the use of time in these equations are unrelated. This is because the concept of time is measured by the amount of rotations of earth and the moon. When you use time in a physics or math equation, you are using the amount of rotations of the moon around the sun. However, time in general is more abstract than this. Think of time as a parallel reality where no rules apply: no gravity, no concept of “time”, and no temperature. To me, this sounds a lot like outer space before the Big Bang where a bunch of particles floated around in “nothingness”. My conception of time is that it and space are similar. Space also allows for jumps in time to happen. If we look at McTaggart's theory of time, he argues that time involves constant change. However, there is proof that moving at a fast speed causes you to experience time at a slower rate. There are also studies that show that you can jump through time if you move at a fast enough velocity (NASA 2020). One study consisted of two clocks: one put on an airport that flew in the direction of Earth’s rotation and one kept on Earth’s surface. After the experiment was done, the clocks were checked. The clock put on the airplane was behind the clock left on the surface showing that time moves slower on a fast-moving plane.

If you are able to jump through time, an object will exist at the instant before you jumped and the instant after you landed in the new “time”. Since you are not changing at a constant rate and exist, cease to exist, then exist, time cannot exist. If I fall into a black hole while someone observes, I will feel time run normally, but they will see time run slower and slower until it will take an infinite amount of time for me to reach the black hole. This is similar to finding the limit of a function that is heading towards infinity but never reaches it.

Another reason why time does not exist is because everyone experiences time at their own rate. For example, if a lady is on a train bouncing a ball up and down and a man is observing this outside the train, they both observe the same ball moving different distances at the same instance. For her, the ball is going straight down and up. For him, it is moving down

and up but also accelerating with the train. And, the Dummett McTaggart theory states, “only what can figure in a complete description of reality can be said to describe reality at all.” Does what we proved above not completely contradict this premise? Since it does, time does not exist. My completed list of premises lie below:

P1) Everything in the universe must follow at least one rule.
P2) An object must change constantly.
P3) Time does not follow a rule.
P4) An object does not always change constantly.
P5) Therefore, time does not exist

My concept of why time is unreal differs from that of all the philosophers’ views mentioned above. While they’re taking a more direct approach to proving that time does not exist, I am giving a philosophical interpretation of scientist’s experiments to show why time is unreal. While scientists are not exactly sure what will happen if you are sucked into a black hole and not instantly crushed, enough data has been taken to prove that time moves differently within and near a black hole. Similarly, time moves at a different pace for every person depending on their speed and how far they are from the Earth’s core. Due to this, time does not exist.

There are a couple objections to my argument. First, why not say that time follows a more limited rule, like how the pythagorean theorem only applies to right triangles while there are other rules that apply to all triangles, for example, the rules that the angles of a triangle must add up to 180 degrees and that triangles must have three sides. If a three-sided shape does not follow the pythagorean theorem, it does not mean that it is not a triangle just that it is not a right triangle. This three-sided shape therefore falls under the rule that all triangles are three-sided and have angles that add up to 180 degrees proving that it is a triangle.

While this is a reasonable concern, it is false. Like I previously stated, everything in existence must follow rules and must be categorized into at least one rule. There are many instances where objects belong to more than one rule and therefore follow more than one rule like how a right triangle follows both the pythagorean theorem and the rule that the angles of all triangles must add up to 180 degrees. However, time does not follow any existing rule. As of now, there is no proof that time is actually real and not a concept created by humans made to make it easier for people to communicate and work. Since time is a human-made concept that does not follow any rule, time cannot be real.

Like Dummett, McTaggart, and Lowe, I agree that time is an unreal concept used to make life easier. Personally, the explanations as to why time does not exist used in the Dummet-McTaggart theory and Lowe’s criticism of McTaggart’s theory make the most sense as they give actual explanations as to what time is. With Dummett, I like how he introduces time as another dimension, passing through objects. I believe that this is a great description of time as it allows for people to view it as something that is intangible and in its own “world” that we are unable to access. Although contrasting Dummett’s description of time, Lowe’s argument also is a very plausible one as it shows space and time going hand in hand. This is similar to my argument since physics relates time and space and most abnormalities of time happen when in space. Since Lowe’s theory has a lot more evidence behind it than the Dummett-McTaggart

theory, I believe that Lowe's definition of time is more right than Dummett-McTaggart's definition of time.

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