McTaggart's proof of the unreality of time

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John (McTaggart Ellis) McTaggart was one of the most prominent British exponents of idealism in the late 19th and early 20th centuries. His most prominent work is *The Nature of Existence* (in two volumes) from which we read an excerpt.

McTaggart's idealism consisted largely in the denial that what we usually take to be central features of reality are, in fact, real. Accordingly, much of his work was devoted to exposing contradictions, or difficulties, inherent in our ordinary picture of the world. Perhaps his most famous, ambitious, and influential such argument is his argument that our ordinary view that things exist in time is false. This was first systematically presented in his 1908 paper, 'The Unreality of Time.' We will be looking at his later (1927) exposition of the argument.

1 The A series and the B series

McTaggart's first central claim is that, as he puts it

> "Positions in time ... are distinguished in two ways. Each position is Earlier than some and Later than some of the other positions. To constitute such a series there is required a transitive asymmetrical relation, and a collection of terms such that, of any two of them, either the first is in this relation to the second, or the second is in this relation to the first. ...
>
> In the second place, each position is either Past, Present, or Future. The distinctions of the former class are permanent, while those of the latter are

not. If M is ever earlier than N, it is always earlier. But an event, which is now present, was future, and will be past.

For the sake of brevity I shall give the name of the A series to that series of positions which runs from the far past through the near past to the present, and then from the present through the near future to the far future, or conversely. The series of positions which runs from earlier to later, or conversely, I shall call the B series." (§§305-6)

We can think of the A and B series as consisting in a group of properties and relations associated with time. We can summarize as follows what McTaggart says about each series, or group of properties:

The A series

- Includes the properties of being past, present, and future.

- Includes properties which are temporary rather than permanent. For example, if an event is present, it will not always be present.

The B series

- Includes the properties of being earlier than or later than another event

- Includes properties which are permanent rather than temporary. For example, if A is earlier than B, it always will be.

Perhaps the easiest way to get a grip on the two classes of properties is to focus on the fact that some characterizations of temporal properties of events are temporary (A series) and that some are permanent (B series). When we say that, e.g., Notre Dame won the national championship in football in 1988, we are ascribing a property to an event — that championship — which that event always has. It will not cease to be true in the future that it happened in 1988. Thus this kind of dating of events belongs to the B series. If we say that this event had the property of coming earlier than Florida's first national championship, this also attributes a permanent (relational) property to the two events. It will not cease to be true in the future that Notre Dame's 1988 national championship came before Florida's first. Thus the properties of being earlier or later than another event also belong to the B series.

But if we say that Notre Dame's 1988 national championship is in the past, we do not attribute a permanent property to it. In 1985, this even did not have the property of being past; it had the property of being future. Hence the properties of being past, present, or future belong to the A series.

2 Problems with the A-series

McTaggart's argument against the reality of time rests on the idea that the existence of the A-series properties involves a contradiction. As we'll see, there are a number of problems to do with the nature of past, present, and future.

2.1 Does the present move?

One way into the difficulties in thinking about the A-series properties is by thinking about the fact that time seems to move. What do we mean when we say that time moves? We don't mean that there's some moment in time that is moving; rather, we mean that the property of being present moves from one time to another.

But this idea that the present moves can be puzzling, for a few reasons:

- If something moves, it must move at some speed. But what is the speed at which time moves? This question does not seem to have an answer; speed is the ratio of distance traveled to time. But how could we apply this notion to time itself?

- If something moves, it must be moving relative to something else. Usually, for example, in the case of our movements, we talk about moving relative to points on the surface of the earth. So if time moves it must move relative to something. But what could this something be?

So is the idea that the present moves an illusion of some kind?

(If so, would it still be true that time would seem to move? Would that lead to the same kinds of problems?)

2.2 McTaggart's argument that the A series is contradictory

At this stage of the argument (§325), McTaggart takes it as established that time cannot be real if there is no A series, and hence no properties of being past, present, or future. The next stage of his argument is to show that these properties involve a contradiction.

This part of the argument involves two central claims:

(1) "Past, present, and future are incompatible determinations. Every event must be one or the other, but no event can be more than one. If I say that any event is past, that implies that it is neither present nor future, and so with the others." (§329)

(2) "But every event has them all. If M is past, it has been present and future. If it is future, it will be present and past. If it is present, it has been future and will be past. Thus all three characteristics [of being past, present, and future] belong to each event." (§329)

The problem, McTaggart argues, is that (1) and (2) are simply inconsistent. This is why the A series involves a contradiction. If any events are past, present, or future, then both (1) and (2) must be true. But (1) and (2) contradict each other; hence the supposition that events are past, present, or future involves a contradiction.

One immediate response to the argument is to deny claim (2). McTaggart anticipates the objection, and gives his response, in §§330-331.

3

330. It may seem that this can easily be explained. Indeed, it has been impossible to state the difficulty without almost giving the explanation, since our language has verb-forms for the past, present, and future, but no form that is common to all three. It is never true, the answer will run, that *M is* present, past, and future. It *is* present, *will be* past, and *has been* future. Or it *is* past, and *has been* future and present, or again *is* future, and *will be* present and past. The characteristics are only incompatible when they are simultaneous, and there is no contradiction to this in the fact that each term has all of them successively.

331. But what is meant by "has been" and "will be"? And what is meant by "is," when, as here, it is used with a temporal meaning, and not simply for predication? When we say that X has been Y, we are asserting X to be Y at a moment of past time. When we say that X will be Y, we are asserting X to be Y at a moment of future time. When we say that X is Y (in the temporal sense of "is"), we are asserting X to be Y at a moment of present time.

Thus our first statement about M—that it is present, will be past, and has been future—means that M is present at a moment of present time, past at some moment of future time, and future at some moment of past time. But every moment, like every event, is both past, present, and future. And so a similar difficulty arises. If M is present, there is no moment of past time at which it is past. But the moments of future time, in which it is past, are equally moments of past time, in which it cannot be past. Again, that M is future and will be present and past means that M is future at a moment of present time, and present and past at different moments of future time. In that case it cannot be present or past at any moments of past time. But all the moments of future time, in which M will be present or past, are equally moments of past time.

McTaggart's argument was that every event is both past, present, and future, which is a contradiction. The objector responds that some events may be such that they will be past, are present, and were future; but never such that they *are* present, past, and future.

But what does it mean to say that something, e.g., was present? Presumably it just means that there is some point in the past at which it was present.

We can combine any two of our predicates 'past', 'present', and 'future' in this way, so that just as any event can have any of the three 1st-level properties

    past
    present
    future

so any event can have any of the nine 2nd-level properties

    past in the past
    present in the past
    future in the past
    past in the present
    present in the present
    future in the present
    past in the future
    present in the future
    future in the future

The objector is suggesting that instead of describing events in terms of the first-level properties, we describe them in terms of the second-level properties.

But, McTaggart argues, the contradiction remains at the second level. For just as it is true of any event (again, for simplicity ignoring first and final events) that it is past, present, and future, it is true of any event that it is past in the present, present in the present, and future in the present. But these are no more compatible than our original three.

To escape this reply on McTaggart's part, the objector might reject the claim that every event is past, is present, and is future. Instead, she might say, it is true that some event might be, e.g., such that it *will be* past in the present, *is* present in the present and *was* future in the present.

How should McTaggart reply?

3 McTaggart's view that time is unreal

We can think of McTaggart's argument that time is unreal as having the following structure:

1. If time is real, then some things must be past, present, or future.
   (I.e., Time essentially involves the *A* series.)
2. The properties of being past, present, and future involve a contradiction; hence nothing can really be past, present, or future.

C. Time is not real.

The argument is clearly valid; the question then is whether the premises are true. McTaggart gives arguments for each.

Could there be time if there were no properties of being past, present, or future? McTaggart notes (§307) that we never experience time without the *A* series; but he notes that someone might object that this does not show that time essentially involves the *A* series, on the grounds that "the distinction of positions in time into past, present, and future, is only a constant illusion of our minds." (§308). To counter this view, McTaggart gives two arguments why the reality of time requires the properties included in the *A* series.

The argument from change

McTaggart argues that time is impossible without change, and that change essentially involves the *A* series.

Why time is impossible without change; the objection that "in ordinary language ... we say that something can remain unchanged through time." (§309) Why, acccording to McTaggart, change in any object entails change in all objects.

McTaggart's argument that change requires an *A* series:

"Let us suppose that the distinctions of past, present, and future do not apply

to reality. In that case, can change apply to reality? ...

...this is impossible. If N is ever earlier than O and later than M, it always will be, and has always been, earlier than O and later than M, since the relations of earlier and later are permanent. ... [If] as, by our present hypothesis, a B series by itself constitutes time, N will always have a position in a time-series, and always has had one. That is, it always has been an event, and always will be one, and cannot begin or cease to be an event.

...

Nor can such change be looked for in the different moments of absolute time, even if such moments should exist. For the same argument will apply here. Each such moment will have its own place in the B series, since each would be earlier or later than each of the others. And, as the B series depends on permanent relations, no moment could ever cease to be, nor could it become another moment." (§§309-310)

The argument from the direction of time

It is essential to time that it have a direction; but it could not have a direction without the properties of being past, present, and future.

A problem for McTaggart's view is that it is difficult to understand the conclusion. It's important to note that if time is unreal, then there's not even such a thing as a temporal ordering of your own thoughts or mental events; the conclusion is not 'just' that there's no time in the world outside of oneself (as if that wouldn't be bad enough).

4 Time without the A-series

It is possible to respond to McTaggart's argument by maintaining that time is real, but just giving up on the idea that being present, being past, and being future are real properties of times. One way to think about this is to try to translate talk about A-series properties like being present into talk about B-series properties. Maybe, for example, when I say 'is present' in this sentence I mean 'at the same time as this utterance.' (Why is this a B-series property rather than an A-series property?) How would you then translate 'in the past'?

This leaves us with the problem of explaining the direction of time. Two possibilities: explain the direction in time in terms of causation, or in terms of increasing entropy.

There's also an important argument for this view: special relativity apparently implies that there is no such thing as absolute simultaneity, and this means that there is no such thing as the class of events which are absolutely simultaneous with my current utterance. But then how could 'being present' be a genuine property of events?

If this is the right view, how should we think of the relationship between the times we call 'present', 'past', and 'future'?