McTaggart

Ted Sider
Intro Metaphysics

1. The A series and the B series

> Positions in time, as time appears to us *prima facie*, are distinguished in two ways. Each position is Earlier than some and Later than some of the other positions… 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. (McTaggart, p. 117)

The A series: the series of positions which runs from the far past through the present, and then from the present through the near future to the far future

The B series: the series of positions which runs from earlier to later

A-series statements are from a particular perspective in time; B-series statements are from an "atemporal" perspective.

"The year 1967 is 55 years in the past" (A-series statement)

"The year 1967 is 55 years before the year 2022" (B-series statement)

Present, past, future, distant past, near past, distant future, near future, 5 years hence, 5 years ago (A-series properties)

Earlier than, later than, simultaneous with, 5 years later than (B-series properties)

2. The main argument

McTaggart's argument for the unreality of time

M1: Time is real only if there is an A series

M2: There is no A series

M3: Therefore, time is not real

3. Arguing for M1: the argument from change

Is it essential to the reality of time that its events should form an A series as well as a B series? Bertrand Russell thinks *no*:

> [According to Russell,] past, present, and future do not belong to time *per se*, but only in relation to a knowing subject. An assertion that *N* is present means that it is simultaneous with that assertion, and assertion that it is past or future means that it is earlier or later than that assertion. Thus it is only past, present, or future in relation to some assertion. (p. 119)

McTaggart thinks *yes*, time requires an A series:

The argument from change

1. Time is real only if there is change
2. There is change only if there is an A series
3. Therefore, time is real only if there is an A series

3.1 No time without change

> It would, I suppose, be universally admitted that time involves change. In ordinary language, indeed, we say that something can remain unchanged through time. But there could be no time if nothing changed. (p. 118)

Reason 1: we wouldn't notice time without change
Reason 2: Ockham's Razor suggests that time just *is* change

3.2 No change without an A series

> Let us suppose that the distinctions of past, present, and future do not apply to reality… What, on this supposition, could it be that changes? Can we say that, in a time which formed a *B* series but not an *A* series, the change consisted in the fact that the event ceased to be an event, while another event began to be an event? … this is impossible. If *N* is ever earlier than *O* and later than *M*, it will always be, and has always been, earlier than *O* and later than *M*, since the relations of earlier and later are permanent. *N* will thus always be in a *B* series. And 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. (p. 118)
>
> If the characteristics of an event change, then there is certainly change. But what characteristics of an event can change?… (p. 119)
>
> Take any event — the death of Queen Anne, for example — and consider what changes can take place in its characteristics. That it is a death, that it is the death of Anne Stuart, that it has such causes, that it has such effects — every characteristic of this sort never changes. . . . But in one respect it does change. It was once an event in the far future. It became every moment an event in the nearer future. At last it was present. Then it became past, and will always remain past, though every moment it becomes further and further past. (p. 119)

He's saying that these are the only types of change:

Type 1: An event coming into or going out of existence

Type 2: An event changing its non-A properties

Type 3: An event changing its A properties

But only type 3 is really possible—and that requires an A series.

3.3 Russell's response: change in objects

Russell: you've left out a type.

Type 4: Change in *things*

Russell's theory of change an object x changes if and only if there are true statements of the form "x is F at time T_1" and "x is *not* F at time T_2"

For example, the poker changes if these two statements are true:

(S) The poker is hot on Sunday

(M) The poker is not hot on Monday

3.4 Reply to Russell: mere variation in a series isn't change

McTaggart's first reply:

> But this makes no change in the qualities of the poker. It is always a quality of that poker that it is one which is hot on that particular Monday. And it is always a quality of that poker that it is one which is not hot at any other time. Both of these qualities are true of it at any time – the time when it is hot and the time when it is cold. The fact that it is hot at one point in a series and cold at other points cannot give change, if neither of these facts change — and neither of them does. (p. 120)

McTaggart's second (better) reply: compare variation across space:

> At Longitude W 104° (Colorado), the USA is mountainous
>
> At Longitude W 98 ° (Kansas), the USA is not mountainous
>
> But no one would say that this gave us change. Why should we say so in the case of the other series? (p. 120)

4. Arguing for M2: McTaggart's paradox

McTaggart's Paradox: A properties would be both compatible and incompatible with each other

> Past, present, and future are incompatible determinations. Every event must be one or the other, but no event can be more than one… The characteristics, therefore, are incompatible. 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 the three characteristics belong to each event. (p. 121)

(Good 1) *M* is present, *M* was once future, and *M* will be past

(Bad 1) *M is* past, present and future

(Good 2) M is present at a present time, future at some moment of past time, and past at some moment of future time

(Bad 3) every moment of time is present, past, and future

(Bad 2) *M* is present at a present moment, future at some moment of present time, and past at some moment of present time

(Good 3) For every moment, *t*, EITHER i) *t* is present, *t was* future, and *t will be* past, OR ii) *t* is past, *t was* future, and *t was* present, OR iii) *t* is future, *t will be* present, and *t will be* past

(Good 4) …i) *t* is present at the present time, future at some moment of past time, and past at some moment of future time…

(Bad 4) …i) *t* is present at the present time, future at a moment of the present, and past at a moment of the present

> This, of course, is the same difficulty over again. And so on infinitely. (p. 122)

> Every number is both positive, negative, and zero.
>
> Every number is both positive relative to a smaller number, negative relative to a greater number, and zero relative to itself.
>
> Every number is both positive relative to zero, negative relative to zero, and zero relative to zero

4.1 What went wrong?

> The real motive of this analysis, and the real cause of the subsequent infinite regress, seems to me to be a certain assumption which McTaggart tacitly makes. He assumes that what is meant by a sentence with a *temporal copula* must be completely (and more accurately) expressible by a sentence or combination of sentences in which there is no temporal copula, but only *temporal predicates* and non-temporal copulas. And the regress arises because there remains at every stage a copula which, if taken as non-temporal, involves the *non-temporal* possession by a term of certain temporal predicates which could belong to it only *successively*. (Broad, "McTaggart's Arguments against the Reality of Time: an Excerpt from *Examination of McTaggart's Philosophy*, p. 127)

5. Aftermath of McTaggart

A theory The A series exists

B theory The A series doesn't exist; only the B series exists