Metaphysics // Fall 2017

Handout 14

Time: McTaggart

THE TWO SERIES. Time passes: Ankara is rainy today, tomorrow it will be dry. What is today is not what will be tomorrow, and not what it was yesterday. I said 'time passes', but haven't been able to say anything about the *time* itself. Instead I simply gave you a changing condition of Ankara. Hence the guess: time passage is articulated through change. More ambitiously, it *consists in* change.

Couldn't time pass without any change whatever? Newton thought so, but our ordinary experience tells otherwise. If I sit 'motionless and still', close my eyes, trying to perceive the passage of time without any change, the evidence that time has passed would presumably consist in the change of thoughts. It is, however, tempting to adopt a synoptic view of the situation and imagine a changeless collection of things ('all that mighty heart is lying still'), nevertheless inserted in time.

Previously I had this sequence:

$$\text{Dry(Ankara):past — Rainy(Ankara):present — Dry(Ankara):future.} \tag{14-1}$$

Indeed, there was not one sequence. At every moment in time I could expect to obtain a different sequence. So *now* I perhaps have (14-1), but later I will have:

$$\text{Rainy(Ankara):past — Dry(Ankara):present — Rainy(Ankara):future.} \tag{14-2}$$

In the changeless time scenario I am contemplating the following sequence:

$$\text{Rainy(Ankara):past — Rainy(Ankara):present — Rainy(Ankara):future.} \tag{14-3}$$

This same sequence will obtain now, obtained before, and will obtain later. A moment of reflection shows, however, my trouble: rain involves motion, hence change. The putatively changeless condition is in fact described through change. For this reason it is better to leave aside altogether the possibility of a changeless time.

The upshot is that time will be characterised by change. This means the possibility of coming up with *different* past-present-future sequences at *different* points in time—that is, at different points designated as 'present' (see Table 1). Those sequences are of course McTaggart's A-series.

	Past	Present	Future
1pm	Dry	Rainy	Dry
2pm	Rainy	Dry	Dry
3pm	Dry	Dry	Rainy

Table 1: Two-dimensional change

But there is another way, one thinks, for characterising time. Suppose I arrange the conditions of Ankara as follows:

$$\text{Dry:earlier — Rainy:present — Dry:later.} \tag{14-4}$$

This does not really give me any different result: I would still end up with changing rows in my table.

Question 1. Explain the last claim.

Instead, I should first fix a point of reference—say, some event E. For example, let E be [SB writes on December 6, 2017]. Then I will have:

$$\text{Dry:earlier — Rainy:simultaneous with } E \text{ — Dry:later.} \tag{14-5}$$

This *is* a different series. For if I try to emulate my two-dimensional table for A-series, I end up with identical rows (see Table 2). The sequence in (14-5) is McTaggart's B-series.

	Earlier	Simultaneous with E	Later
1pm	Dry	Rainy	Dry
2pm	Dry	Rainy	Dry
3pm	Dry	Rainy	Dry

Table 2: Two-dimensional non-change

A-SERIES ESSENTIAL FOR TIME. We have already touched on the first claim of McTaggart's, that time cannot be unless there is change. It should be characterised by A-series. The change we are talking is a change in things. Now you might think that X changes if it is F at t and G at t'. Having different properties in different times amounts to change.

McTaggart rejects this claim. Consider Ankara: suppose it was not rainy before a certain Monday. You might think a change has occurred—in the condition of Ankara:

$$\text{Ankara is dry before Monday, and later, on that Monday, it was rainy.} \tag{14-6}$$

But McTaggart evidently thinks that this relies on an untenable assumption, that things have certain properties at one time and other properties at another. These are 'temporal properties'. He claims that '… is rainy' is not a temporal property. Instead of (14-6), we should say:

$$\text{Ankara is dry-on} \ldots, \text{Saturday, Sunday, and rainy-on Monday.} \tag{14-7}$$

Ankara does not have a unary property of being dry or rainy. It rather stands in a binary relation to the days of the week: Dry(Ankara,Sunday), Rainy(Ankara,Monday) etc. And if so, then change is lost, because these relations hold at any time.

But what *are* temporal properties? Apparently the only such properties are 'past', 'present', and 'future'. And the only entities that can change and can have temporal properties are events. So for the change to be real we must be able to say something like the following:

$$\begin{array}{l}\text{The event [Ankara is rainy] has, on Monday, the property of being present,} \\ \text{and does not have it on other days.}\end{array} \tag{14-8}$$

A-SERIES IS CONTRADICTORY. Having established, more or less, that A-series is essential in characterising time, McTaggart seeks to establish that it is self-contradictory.

Suppose that an event M is past. Then inserting it into an A-series, we get:

(1) M is past
(2) M is present
(3) M is future.

We have a contradiction. But an opponent is not impressed. He has a different set of claims:

(1) M was past
(2) M is present
(3) M will be future.

No contradiction here. However, what exactly does all of that mean? Nothing but this:

(1) M is past at t such that t is present, and t will be past and t was future.
(2) Etc.

The opponent repeats the move, and regress is under way.

YSB