A Defeating Objection to Dynamic Block Theories of Time

*Abstract*

McTaggart’s argument against the reality of the A series (or some variation on it) poses a serious problem for the moving-now block theory of time (MNBT). A defender of MNBT can respond along lines suggested by Broad: by denying that we should understand ‘*e* was present’ as saying that *e* is present at some past moment *t*. There is, however, a serious—plausibly defeating—objection to this type of response: it implicitly denies a non-negotiable platitude about time. As a result, MNBT is not tenable. Growing block theories are also defeated by a similar objection.

Key words: Time; moving-now block theory; spotlight theory; growing-block theory; J. E. McTaggart; C. D. Broad; David Lewis; William Lane Craig

McTaggart’s argument against the reality of the A series (or some variation on it) poses a serious problem for the moving-now block theory of time (MNBT). A defender of MNBT can respond along lines suggested by Broad: by denying that we should understand ‘*e* was present’ as saying that *e* is present at some past moment *t*. There is, however, a serious—plausibly defeating—objection to this type of response: it implicitly denies a non-negotiable platitude about time. As a result, MNBT is not tenable. Growing block theories are also defeated by a similar objection.

In order to get to the key argument, we need to rehearse some familiar moves.

Suppose event *e* is past. It is, therefore, not present. But it *was* present. In the context of Moving Now Block Theory, this entails that *e* is present, at some moment *t* which is before now (as McTaggart effectively claims—see his 1927). But this means that *e* is present. Contradiction.

This argument faces a version of the ‘obvious response’ noted by McTaggart, that it fails to respect the fact that *e* is present at one time and not-present at another. But, if this response is to be satisfying, we need to be told how the reference to times is meant to help. If we follow William Lane Craig (1998) and draw an analogy between the attribution of temporal properties to events and the attribution of quotidian intrinsic properties to objects (as this figures in the problem of temporary intrinsics as articulated in Lewis 1986), we gain a clear view of the options.

Suppose ‘is F’ attributes some quotidian intrinsic property, and that object *b* is F at *t* and *b* exists but is not F at *t*\*. It seems that *b* is F and *b* is not F. Contradiction. But, of course, we’re neglecting the fact that *b* has these incompatible characteristics at different times—so, no contradiction, or at least that’s what the objector will say.

We can, however, ask how, in the context of MNBT, introducing times is meant to help with quotidian temporary intrinsics. In the context of such a theory, *b* being F at *t* is just a matter of *b* having presence at *t* and being F at that (temporal) location. So there is at least a prima facie contradiction to be dealt with: *b* is F (at *t*) and *b* is not F (at *t*\*). There seem to be two key ways that the introduction of times might help:

(Temporal parts) Object *b* has presence at *t* in virtue of having a temporal (proper) part that is located at that temporal location, with that part being F

(Relationism) Object *b* stands in the *is-F-at* relation to *t* and does not stand in the *is-F-at* relation to *t*\*

(See Lewis 1986, p. 204. Lewis’s third possible solution to the problem of temporary intrinsics, Presentism, is of course not relevant here, as to adopt it would simply be to abandon block theory.)

Consider now the application of these styles of solution to the application of temporal properties to events.

It is difficult to see how Temporal Parts might be applied to events and temporal properties, because *e* does not have temporal parts located at moments in time at which it is past.

It seems that Relationism would explain away the appearance of contradiction: event *e* stands in the *is-present-at* relation to *t* and stands in the *is-past-at relation* to *t*\*. The problem with this solution (as Lane Craig points out) is that in getting rid of the contradiction it also gets rid of dynamism and reduces supposed A determinations to B terms: *being-present-at-t* is a B characteristic.

Note that it will not do to say that the proposition *e is present* is true at *t* and not true at *t*\*. This simply repeats the problem of incompatible attributions—now with regard to the proposition. It is also analogous to a spatial case which is obviously absurd: suppose *b* is located at point *p*, it cannot be that the proposition *b is F* is true at *p* and yet be false at some other point *p*\*.

So it seems that, *in the context of MNBT*, introducing times cannot get rid of the sort of trouble with contradiction that McTaggart urged us to recognize.

An objection might be raised at this point, along lines suggested by Broad’s (1938) response to McTaggart. It might be complained that it has simply been assumed that temporal properties are like quotidian intrinsic properties (or, at least, that *being present* has that character). It might be suggested, against this assumption, that temporal properties are *sui generis* and that, where P is a temporal property, *e was P* does not entail that *e* is P at some past time *t*—that, as we might say, temporal properties are *traceless* (rather than *traced*, as MNBT takes quotidian properties to be).

At first blush, this looks like a way of framing a coherent version of MNBT: the possession of quotidian properties by objects is traced—if an object *b* was F, then there is some past time *t* such that *b* is (tenselessly) F at *t*—but temporal properties of events are traceless.

This is, however, vulnerable to a serious—plausibly terminal—objection. Note first that the following claim is a non-negotiable platitude about time:

*e* was present iff *e* is past

We can clarify the status of this platitude by noting (a) that we reject all claims like ‘JFK’s assassination is past, but it was never present’ and (b) that the basis of this rejection is not empirical. This justifies taking the platitude as having modal content:[[1]](#footnote--1)

Necessarily, *e* was present iff *e* is past

Now, it is surely unacceptable for a theory of the nature of temporal reality to deny such a platitudinous claim, but that is exactly what the version of MNBT we have been considering does.

The problem can be made vivid by noting that, on the proposed untraced MNBT account, God could have made the block of history—all twelve billion plus years-worth of it—but have started the line of presentness at, say, the year 1963, or five minutes ago. In this case, it would be true that the battle of Hastings is past (the relevant events are there in the block, so to speak, laid out in 1066) but *not* true that the battle *was* present—because it has never been touched by presentness.

So, the advocate of MNBT faces a dilemma: say that temporal properties are traced, and fall into contradiction; or say that temporal properties are traceless, and deny a non-negotiable platitude about time.

It might be suggested that there could not be a block of events related as earlier and later without earlier events having been present. This is not, however, a claim that a defender of MNBT can appeal to: MNBT requires that future events are related as earlier and later, but if there is a real block including sequences of events lying in the future (i.e. later than the present) then these events will not yet have been present—so MNBT requires that events can be related as earlier and later without having been touched by presentness.

Alternatively, it might be suggested that a MNB theorist could simply bite the bullet and allow that there might be past times that were never present. This is not sustainable, however, as MNBT takes temporal order to supervene on tensed properties—the natural analysis being: x is earlier than y iff x is past when y is present—but this would not produce an ordering for past times that were never present.[[2]](#footnote-0)

A version of this objection also applies to growing block theories (GBT)—though there is an additional wrinkle to the argument in this case, because, at first blush, it looks like GBT allows for a response to the objection.

Note first that it seems that presentness can *only* be traceless in the context of GBT: according to GBT, to be present is to be at the growing face of the block, so slices of time within the block cannot be present at their temporal locations—they simply lack the key characteristic of present events. Secondly, a problem analogous to that facing MNBT faces GBT. God could have created a block containing billions of years worth of events with the first growth occurring at 1963 or five minutes ago. So GBT is also committed to the denial of ‘Necessarily, *e* was present iff *e* is past’, which is not acceptable.

It might be suggested that there is a way to resist this form of argument in relation to GBT that is not open to the defender of MNBT—that we can insist that, if a block is to comprise events related as earlier and later, then the structure of that block must have been laid down by the progressive generation of new presents. The advocate of this suggestion might try to press their case by saying:

If God starts the growing block from 1963, then the supposed contents of the block all come into existence at the same moment and so cannot be related as earlier and later (because they are simultaneous)

This line of objection cannot, however, be filled out in a way that is consistent with (traceless) growing block theory. To see this, suppose that the block has been growing for some time and consider some arbitrary moment in its continued growth. The advocate of traceless growing block theory cannot say that (at this moment) things and events that lie in the past (at this moment) *exist at* this moment. (If they were to say that those past things and events *exist at* that moment then their view would fall into incoherence for familiar sorts of reasons: they should have to say that these events and object are past, and therefore not present, but they will also have to say that they are present, because they *exist at* the present moment.) Of course, they can and should say that such things exist (tenselessly), but it is only things and events which have presence at the growing face which exist *at* that (present) moment. Now we can apply this finding to the case in which God starts the block growing from 1963: the advocate of traceless growing block theory will have to agree that events and objects which do not have presence at the growing face as growth is initiated do not *exist at* that moment, and so it will *not* be the case that this is the first moment of their existence. At least, it will not be the case that this is the first moment of their existence in any way which conflicts with pairs of them standing in earlier/later relations. It may be that this is the first moment at which it is the case that they exist (tenselessly), but GBT requires that that is a different matter.

So, advocates of dynamic block theories of time face a fatal dilemma: take presentness to be a traced property, and fall into incoherence; or take presentness to be untraced, and deny a non-negotiable platitude about time—i.e. that it is necessary that, for all events e, e is past iff e was present.[[3]](#footnote-1)

*References*

Broad, C. D. 1938: ‘McTaggart’s Arguments Against the Reality of Time’, in his *Examination of McTaggart’s Philosophy, vol. 2, pt. 1*. Cambridge: Cambridge University Press, pp. 309–17.

Craig, William Lane 1998: ‘McTaggart’s Paradox and the Problem of Temporary Intrinsics’. *Analysis*, 58, pp. 122–7.

Lewis, David 1986: *On the Plurality of Worlds*. Oxford: Blackwell.

McTaggart, J. E. 1927: *The Nature of Existence*, vol. 2. Cambridge: Cambridge University Press.

1. None of the factors which would lead two-dimensional semantics to get a grip and make a difference are in play here, so the claim can be taken to express metaphysical necessity. [↑](#footnote-ref--1)
2. Thanks to an anonymous referee for suggesting this addition. [↑](#footnote-ref-0)
3. Thanks to Tom Stoneham, Helen Yetter-Chappell, Guy Longworth, and an anonymous referee for helpful comments on earlier versions of this paper. [↑](#footnote-ref-1)