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Time, Space, Dummett and McTaggart

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Abstract: Michael Dummett's fecund and uncharacteristically brief article "A Defence of McTaggart's Proof of the Unreality of Time" offers a well-known interpretation of McTaggart's proof, and makes a number of controversial claims about a range of inter-connected theses concerning time and space. I want to sort out what is plausible in what Dummett says from what is not, and identify which theses should be endorsed by A theorists and which by B theorists. It is important, even today, to get clear about these issues and their bearing on Dummett's interpretation of McTaggart.

Keywords: Time, Space, Dummett, McTaggart

The argument of McTaggart's 1908 article "The Unreality of Time" runs as follows. We distinguish positions in time in two ways: a permanent B series (in which events are distinguished using the relations of *earlier than* and *later than*) and a changing A series (in which events and facts are first future, then present, then past). Both series are essential to time, yet the A series is more fundamental (McTaggart 1908, 458). It is more fundamental because change is possible only on the A series. Thus the B series, though essential for time, is not sufficient; in contrast, the A series is both necessary and sufficient for time. This concludes the first argument in McTaggart's reasoning: his argument for the fundamentality of the A series.

Having established this conclusion, McTaggart then claims that the A series "... involves a contradiction." (McTaggart 1908, 466). His argument for the contradiction is seemingly straightforward: past, present and future are "incompatible determinations" yet "... every event has them all." (McTaggart 1908, 469). This argument is typically known as McTaggart's Paradox. McTaggart is aware of a natural rejoinder to his argument. No event, it will be urged, is *simultaneously* past, present and future, only *successively* (first future, then present, then past), and from this no contradiction follows. But, claims McTaggart, this rejoinder entails either a vicious circle or a vicious infinite regress, and so the contradiction is not removed.

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In sum, McTaggart's first argument establishes that the A series is fundamental to time (since only the A series can accommodate change). His paradox then establishes that the A series is contradictory. From these conclusions together it follows that time is unreal.

My primary aim in this discussion is not to assess McTaggart's arguments but to ask whether Michael Dummett's well-known reconstruction yields a plausible interpretation of McTaggart's reasoning (Dummett 1960). My answer will be "No". Although there have been other critiques of aspects of Dummett's article in the literature – e. g., Lowe (1987) and MacBeath (1988) – they do not address the broader interpretative questions about Dummett's reconstruction that I consider here. I also draw out broader consequences from Dummett's remarks for the character and commitments of the A and B theories of time.

In his discussion Dummett does not use the terms "A series" and "B series". Instead, he talks of "facts of kind (a)" *viz.*, facts into the statement of which tensed expressions enter essentially. (Dummett 1960, 500) Presumably, facts of kind (b) would be facts into the statement of which no tensed expressions enter (or do so inessentially). Clearly, facts of kind (a) are meant to correspond to A series facts (e. g., the fact that Hitler's death is past), and facts of kind (b) to B series facts (e. g., the fact that Hitler's death is later than Caesar's death).

Having thus set things up, Dummett begins by making the following claim. With regard to McTaggart's arguments, "[p]art two depends upon part one ..." (Dummett 1960, 500). That is, the success of McTaggart's Paradox, a plausible rendering of which Dummett sketches in his opening pages, depends upon the success of McTaggart's argument for the fundamentality of the A series. This might seem a puzzling claim. Could one not hold that the A series is not fundamental (since the B series can account for change) *and* that the A series is contradictory?

However, I take it that Dummett's point is that McTaggart's Paradox (part two) is directed against the A series as understood by the A theorist. That is, McTaggart's Paradox is intended to show that the A series is contradictory on the assumption that tensed properties are fundamental and (hence) irreducible. No one thinks that the A series is contradictory if tensed properties are taken to be reducible to B-theoretic properties (e. g., it is not contradictory for X to be earlier than t2 but later than another time t1). McTaggart's Paradox is directed against the A theory of time, i. e., the theory that the A series is fundamental and consistent. So, properly understood, Dummett's claim is correct: McTaggart's proof of the inconsistency of the A series presupposes the fundamentality of that series.

This explains why Dummett continues as follows:

... it is because the analogue of part one does not hold for space or for personality that the analogue of part two for space or for personality has no force (Dummett 1960, 500).

The analogue of part one does indeed fail for space and personality: plausibly, no spatially or personally token-reflexive expressions ("here", "there", "I", "you", etc.,) feature essentially in a description of reality.

Dummett is sympathetic to the conclusion of McTaggart's first argument, that is, the tensed thesis (as we can call it) that what is in time cannot be fully described without the use of tensed expressions. Dummett offers his own argument for the tensed thesis, but it is unconvincing. Consider any description of events containing no tensed expressions. We can, says Dummett, always ask the question "And which of these events is happening now?". This question, Dummett thinks, deserves an answer, yet can only be answered if tensed expressions are added to the description. Hence, the tensed thesis is true. (Dummett 1960, 591)

However, B theorists, who reject the tensed thesis and accept its negation (the tenseless thesis) will reply that Dummett's question is either illegitimate or else can be answered in tenseless terms. If Dummett's question is asked from "outside time", it makes no sense (just as, we can all agree, the question "What is happening *here?*", asked from "outside space", makes no sense). For the B theorist, a question containing a temporal indexical can only meaningfully be asked and answered from a position within time. In that case, the answer to Dummett's question is straightforward: the events which are happening now are those events whose occurrence is simultaneous with the event of the posing of Dummett's question.

Dummett takes the tensed thesis to be equivalent to the temporal immersion thesis that a full description of events in time can only be " ... given by someone who is himself in that time." (Dummett 1960, 501) This thesis, in turn, is taken to imply the embedded perceiver thesis that only a being who is in time can perceive events occurring in time. (Dummett 1960, 501) According to Dummett, the spatial analogues of these three temporal theses are false:

... the use of spatially token-reflexive expressions is not essential to the description of objects as being in a space. That is, I can describe an arrangement of objects in space although I do not myself have any position in that space. An example would be the space of my visual field. In that space there is no here or there, no near or far: I am not in that space. We can, I think, conceive, on the strength of this analogy, of a being who could perceive objects in our three-dimensional physical space although he occupied no position in that space. He would have no use for any spatially token-reflexive expressions in giving a description of the physical universe, and yet that description might be a perfectly correct description of the objects of the universe as arranged in space. (Dummett 1960, 500-501)

Is Dummett right to identify the tensed thesis with the temporal immersion thesis? They are, to start with, far from obviously equivalent. More than that, as we shall see, a defender of the tensed thesis should reject the temporal immersion thesis (but accept the embedded perceiver thesis). A further worry for Dummett arises because the spatial analogue of the embedded perceiver thesis seems to be true. Consider that analogue: the thesis that only a being in our three-dimensional space can perceive objects in that space. If someone perceives objects in our space, she inevitably perceives some objects as nearer to her than other objects. How could this be if she occupies no position in that space? Nor does Dummett's example of the visual field help. I am not in my visual field, yet the objects which populate my visual field, presumably the objects in my immediate physical environment, are differently situated with respect to me; so I must be in the same space as them. If, instead, the occupants of the visual field are thought of as non-physical sense-data, then they occupy no space. (But, in that case, the spatial analogue of the embedded perceiver thesis can get no grip. J. J. Thomson is particularly good on this issue (see Thomson 2001, 243-247)).

Arguably, then, Dummett was wrong to identify the tensed thesis with the temporal immersion thesis, and wrong to claim that the spatial analogue of the embedded perceiver thesis is false. Fortunately, these results are not fatal to Dummett's reconstruction. Dummett should simply have claimed that the tensed thesis is true of time, its analogue false of space, and left it at that.

With regard to part two of McTaggart's argument, Dummett asks " ... does not the objection we considered – that McTaggart's attempt to uncover a contradiction rested on a neglect of the obvious properties of token-reflexive expressions – at least invalidate part two of the argument?" (Dummett 1960, 501). The objection Dummett is alluding to holds that, if McTaggart's argument for a contradiction in the A series were sound, we could equally well argue for the inconsistency of space and personality by showing that every place can be both "here" and "there", and every person can be both "I" and "you"; since the latter arguments are confused, so is McTaggart's.

It is odd that Dummett asks this question at this point since he already has the means to answer it (*viz.*, by appeal to the falsity of the analogue of part one for space and personality). More importantly, instead of answering his own question, Dummett takes a new tack and ascribes to McTaggart, without any citation, the assumption that:

... reality must be something of which there exists in principle a complete description. I can make drawings of a rock from various angles, but if I am asked to say what the real shape of the rock is, I can give a description of it as in three-dimensional space which is

independent of the angle from which it is looked at. The description of what is really there, as it really is, must be independent of any particular point of view. Now if time were real, then since what is temporal cannot be completely described without the use of tokenreflexive expressions, there would be no such thing as the complete description of reality. (Dummett 1960, 503)

I take a *complete* description of temporal reality to be one which leaves out no truth and which is free of tensed expressions, such as "past", "present", and "future". Dummett identifies a complete description with a description which is "observer-independent". (Dummett 1960, 503) However, this is a mistake: an observer-independent description need not be complete (as we have defined "complete"). All parties to the debate should agree that there can be an observer-independent description of reality. Obviously the B theorist agrees; but so should the A theorist. For A theorists the location of the NOW is an objective matter, independent of the location or even existence of any observer. Events would still be past, present and future, according to the A theorist, even if no observers had existed. The key question is whether an observer-independent description has to be tensed if it is to capture all truths. The A theorist answers "Yes", the B theorist "No".

The foregoing paragraph shows why "tensed" is preferable to "token-reflexive". For the A theorist, there can be tensed facts in the absence of any token-sentences or token-utterances (e.g., in a world with no sentient life). It also shows that defenders of the tensed thesis (i.e., A theorists) should not endorse the temporal immersion thesis. If the location of the NOW is an objective matter, there is no reason why a description of reality could not be given by a being who is not in that time (assuming that such a being can somehow know – perhaps by inference – the location of the NOW). The embedded perceiver thesis, in contrast, may well be true, since it is plausibly a condition on *perceiving* events in time that one is in that time (just as, as noted earlier, it is plausibly a condition on perceiving objects in space that one is in that space).

According to Dummett, McTaggart's overall argument amounts to the following:

- (1) What is in time cannot be fully described without tensed expressions;
- Reality must be something of which there exists in principle a complete (2) (hence, tenseless) description; so
- (3) Time is unreal.

Dummett regards McTaggart's conclusion as false since he thinks it undeniable that our apprehension of the world changes and change requires time. Since the argument is valid, and Dummett denies its conclusion, he must deny at least one of its premises. As noted, Dummett finds premise (1) plausible, and thus recommends that we jettison (2), that is, reject "... our prejudice that there must be a complete description of reality." (Dummett 1960, 504)

It is worth noting that (2) is not a prejudice, if this is meant to imply that it is a popular or pre-theoretic belief. Premise (2) is a theoretical belief, held on the ground that tense is always a feature of our representations, never of the world represented. It is also worth noting that the title of Dummett's article, as we can now see, is apt to mislead. Dummett does not defend (what he takes to be) McTaggart's argument for the unreality of time. But he does think it shows something of importance: *viz.*, the falsity of premise (2).

However, it ought to be evident that Dummett has not produced a recognisable reconstruction of McTaggart's reasoning. It is true that McTaggart would have endorsed premise (1) since it is, in effect, the conclusion of part one of McTaggart's reasoning. But Dummett has replaced McTaggart's argument for a contradiction in the A series (part two) with the completeness assumption (i. e., premise (2)), an assumption for which Dummett offers no textual support in McTaggart's writings. An account of McTaggart on time which leaves out reference to McTaggart's Paradox is like an account of *Hamlet* which leaves out reference to the Prince.

Moreover, the (1) – (3) argument is self-defeating. (This point is, of course, independent of the exegetical issue.) Anyone attracted to premise (1) (that is, any A theorist about time) should reject premise (2), a premise, as noted, with no pre-theoretical motivation. All A theorists – whether Presentists, Growing Universe theorists, or Moving Spotlight theorists – hold that the fundamental temporal facts (i. e., the tensed facts which record an event's position in the A series) change as time passes. I can state the facts as they are from the present perspective, including, e. g., the fact that my death is future. One hundred years hence a different set of facts will obtain, including the fact that my death is past. In which case, a defender of (1) will inevitably reject (2), for (2) is true only if the facts never change. The (1) – (3) argument is thus pragmatically self-defeating: anyone who accepts premise (1) thereby has reason to reject premise (2).

In sum: Michael Dummett's discussion of McTaggart makes appeal to a number of important and inter-connected theses concerning time – the tensed/tenseless theses, the temporal immersion and embedded perceiver theses, the complete description and observer-independence theses – and the relations between them (and their spatial analogues). Whatever the philosophical interest of these theses, and they are of considerable interest, there is no reason to suppose that McTaggart implicitly or explicitly assumed as a premise the complete description thesis. As a result, Dummett has misrepresented McTaggart's

reasoning and, in addition, attributed to McTaggart an argument which is pragmatically self-defeating.

Our discussion also has more general implications for the philosophy of time. We can conclude from the foregoing that A theorists about time should endorse the tensed thesis (the thesis that what is in time cannot be fully described without tensed expressions), the embedded perceiver thesis (the thesis that only a being who is herself in time can perceive events occurring in time), and the observer-independence thesis (the thesis that there can be an observerindependent description of temporal reality). But A theorists should reject both the complete description thesis (the thesis that there can be a description of temporal reality which leaves out no truth and which is free of tensed expressions) and the temporal immersion thesis (the thesis that a description of events in time can only be given by someone who is herself in that time).

In contrast, the B theorist should accept the tenseless thesis (i. e., the denial of the tensed thesis), the complete description thesis, the embedded perceiver and observer-independence theses, and reject only the temporal immersion thesis. How does space compare to time? Plausibly, the spatial analogues of the four theses endorsed by the B theorist are all true and the spatial analogue of the fifth thesis (the spatial immersion thesis) is false. This result supports, and gives more content to, the familiar idea that the B theorist treats time similarly to how we all treat space.

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