

## WHEN AM I? A TENSE TIME FOR SOME TENSE THEORISTS?

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Is there anything more certain than the knowledge we have that we are present? It would be a scandal if our best theory of time could not guarantee such knowledge; yet I will argue that at least two recently proposed theories, namely Tooley's [15] 'hybrid' tensed theory and McCall's [7] branching model of the universe, fail in this regard, and so should be rejected.

### I. The Present Problem

There is a clear partition between tensed and tenseless theories of time: essentially, tense theorists, i.e., those who defend tensed theories of time, assert that in some objective, mind-independent sense or other, the present is privileged, whereas tenseless theorists, i.e., those who defend tenseless theories of time, assert that all times are real, no one of which is ontologically privileged.

Many tense theorists hold that more than one time is real, yet one among them is privileged, namely the present. This, I claim, raises the question that has not been addressed in the literature on time, namely of how we can know that we are present and not past (or future). I shall call this the Present Problem:

Given that we do know we are present, and that it is absurd to doubt it, any adequate theory of time must find a way to guarantee such knowledge.

There is a seemingly obvious solution to the Present Problem: we should treat the terms 'present' and 'now' as indexical terms: my use of 'now' at any given time simply picks out the time at which it is used; consequently, my now is guaranteed to be present, since it is merely the time at which I am: *sum ergo sum nunc*. How could I be anywhere else?

The advantages for the indexical account of 'present' (echoing Lewis [5, p. 93] with his indexical theory of actuality) can be put as follows. Suppose that one time alone is the privileged present. It is still true that one time alone is ours, is this one, is the one at which we are. What a remarkable bit of luck for us if the very time at which we are is the one that is the privileged present! Out of all the people there are in the past, present and future, the great majority live at times that lack privileged presentness, but we are the select few. But what reason could we ever have to think it was so? How could we ever know? Past groats buy no fewer past leeches, and so forth. And yet we do know for certain that the time at which we are is the time at which we are. How could this be knowledge that we are the select few?

Here we should distinguish two questions, based on the different uses of 'present': the indexical use above, and the referential use, which treats 'present' as referring to the privileged time of the tensed theory. Call this privileged time \*present\* (and similarly call

the times earlier than and later than it \*past\* and \*future\*, respectively), leaving the indexical sense of 'present' unstarred, i.e., the sense in which we have unproblematic acquaintance with our surroundings. The first question can then be stated as: in the indexical sense, is it possible to doubt that we are present, i.e., doubt that we are when we are? Of course not! Consider Mellor [9, p. 53]:

... [J]udging my experience to be present is much like my judging it to be painless. On the one hand, the judgment is not one I have to make ... But on the other hand, if I do make it, I am bound to be right, just as when I judge my experience to be painless. The presence of experience ... is something of which one's awareness is infallible.

... No matter who I am or whenever I judge my experience to be present, that judgment will be true.

This lends support to the indexical analysis of presentness, for it explains why our own presentness is something we could not be mistaken about (barring severe pathological mental disorders). Nevertheless, we could perfectly well know this, i.e., that we are when we are, even if we were \*past\*, i.e., even if our time were not the time on which the badge of privilege has been conferred. So the indexical analysis itself will not solve the Present Problem, which can be restated as follows:

The Present Problem:

Although we know by immediate acquaintance which time is our own, how can we know that our time is \*present\*?

Some might not think this is much of a problem and claim that we have immediate acquaintance with what it is to be in the \*present\*, something different from what it is to be \*past\*. But, again appealing to Lewis [5, p. 93] in his analogous discussion in the possible worlds debate of knowing that we are absolutely actual rather than merely possible:

Adams [[1]] ... says that [we] can account for the certainty of our knowledge of our own actuality by maintaining that we are as immediately acquainted with our own absolute actuality as we are with our thoughts, feelings and sensations. But I reply that if Adams and I and all the other actual people really have this immediate acquaintance with absolute actuality, wouldn't my elder sister have had it too, if only I'd had an elder sister? So there she is, unactualised, off in some other world getting fooled by the very same evidence that is supposed to be giving me my knowledge.

And similarly, if such a tense theorist and I and all the other present people really have an immediate acquaintance with the \*present\*, didn't Plato have it too? So there he is, off at some other time in the \*past\* getting fooled by the very same evidence that is supposed to be giving me my knowledge of being \*present\*. Thus although subjective experience, as Mellor notes above, is an infallible guide to 'presentness', it is not an infallible guide to \*presentness\*, for if it were, then Plato's experience would have to be qualitatively different from our own, yet it is clear that there is no identifiable difference, nothing that we can call a manifestation of such an experience. For what is it to experience \*presentness\* over and above what it is to experience 'presentness'? On the other hand, if

there is something that it is like to experience \*presentness\*, then for want of a characterization of it, we can never be sure that we are presently manifesting it.

Thus, I say, and shall argue for this in more detail below, that the only way a pluralist about times (by which I mean someone who holds that more than one time is real) can solve this problem is by first denying that any times are \*present\*, and thus something we can be mistaken about. And this is precisely what tenseless theorists do. According to tenseless theorists (e.g., Mellor [10]), our time is not ontologically privileged, but is one among a plurality of equally real times; that is, they deny the assumption that there is a difference in kind between our time and other times; the only sense of 'present' they recognize is the indexical sense. And it is with these two features that they solve the Present Problem.

But this is not the only solution to the Present Problem: it only arises if we start from the position of pluralism. Consider presentism, the view that there exists one and only one real time, and which denies the existence of real past and future times. It is clear that presentism also solves the Present Problem, not due to any distinct phenomenological experience, but simply because if we only initially invoke the existence of our present time as the one real time, we could not help being \*present\*, since *ex hypothesi* it is not possible for us to be anywhere else: *I am, therefore I am present*.

Thus there are two types of theory that can solve the Present Problem: the tenseless theory and presentism. I shall now go on to show that any theory that invokes many real times, yet says one among them is privileged, cannot satisfactorily answer the Present Problem, and should therefore be rejected.

## II. Two tensed theories toppled

What about the alternative tensed positions? I shall show that at least two such recently proposed tensed theories cannot adequately meet the Present Problem, namely those of McCall [7] and Tooley [15].

### (a) *Why there's no future in Tooley's no-futurism*

Tooley defends what I shall call no-futurism: the past and present are real, but the future is not. According to Tooley's version of no-futurism, reality grows as more and more *tenseless* facts come into existence and remain in existence. In other words, the moment that is the ontologically privileged moment, the \*present\* moment, the moment at the cutting edge of reality, continually changes in the ceaseless tide of becoming, leaving behind (equally real) shadows of our present selves.

Tooley's theory is a hybrid of the tenseless and tensed theories. For Tooley agrees with the tenseless theory that it is tenseless facts that make tensed beliefs true. Thus, when I now believe that I am presently writing, my belief is not made true by the fact that when I believe it, my time of writing is \*present\*, but is made true by the fact that my believing it is simultaneous with my writing. We can say, then, that what I believe (that I am now/presently writing) is true when I believe it. Similarly, when Plato, back in 365 BCE, believes that he is now/presently teaching Aristotle, his belief is not made true by the fact that when he believed it his time was \*present\*, but is made true by

the fact that he believed it when he was teaching Aristotle. Thus, we can say that what Plato believed then of himself (namely, that I am teaching Aristotle) was true when he believed it.

But Tooley's theory differs from the tenseless theory in that, according to his theory, there is a time (the \*present\*) at the cutting edge of reality at which tenseless facts come into existence and remain in existence. Specifically, according to Tooley (p.196):

The present, at a given time, consists of those states of affairs that are actual as of that time, and which are such that there are no later states of affairs that are actual as of that time.

Initially, this appears to be an attractive definition of what it is to be \*present\* at any given time, and Tooley's theory is ingenious at avoiding many problems associated with traditional tensed theories. But, ultimately, I do not think it will work. Specifically, it falls foul of the Present Problem: what is there in Tooley's theory to guarantee the link between this definition of being \*present\* and the tenseless truth-conditions offered for tensed statements, a link required to avoid the possibility that our 'present' and the \*present\* could peel apart?

Since it is tenseless facts that make our beliefs true, whether we are in fact \*present\* or not is not something to which we can have (or need) access; it makes absolutely no difference to us whether our time is \*present\* or not! At least, we can have true tensed beliefs that we are present, because these are made true by tenseless facts, but our tensed beliefs that we are \*present\* would have to be made true by the fact that our time is also \*present\*, i.e., that it is the only time at which no later times exist. Yet nothing has been said so far to guarantee the link between believing that we are \*present\* and that time actually being \*present\*. This, then, raises the question of how we can know our time is \*present\*, for we would have all the same beliefs (about, for example, whom we are presently teaching, whom we have just taught, and whom we are planning to teach) even if we were \*past\*—Plato, after all, back in 365BCE, believes truly that he is teaching Aristotle, and it makes no difference to him that he is \*past\*! How are we not in the same position, according to no-futurism? So here am I, a no-futurist, convinced that my present time is \*present\*. But wasn't I just as convinced yesterday, when I went through these arguments then? So, there am I as I was yesterday, as real as I am now, believing that I am \*present\*, and thinking pretty much the same things then about my previous selves as I think today. Yet I know now that my earlier self is mistaken; so how do I know that I now am not?

Suppose we try the following strategy to guarantee such a link. Suppose we say that when we believe (truly) that event  $e$  is present (i.e., occurs simultaneously with our belief), it is also true that  $e$  is \*present\*, i.e., that as of that time when  $e$  occurs, only that time and earlier times exist. This obvious response leads to contradiction. For suppose events,  $N_{e_1}, \dots, N_{e_n}$ , occurring now are \*present\*. This renders earlier events,  $P_{e_1}, \dots, P_{e_n}$ , as \*past\*. But if Plato believes (truly), in 365 BCE, that events,  $P_{e_1}, \dots, P_{e_n}$ , are present (i.e., occur simultaneously with his belief), then, according to this proposal,  $P_{e_1}, \dots, P_{e_n}$  must also be \*present\* when he believes it, i.e., in 365 BCE. But this a plain contradiction: under these conditions, events  $P_{e_1}, \dots, P_{e_n}$  would be both \*past\* and \*present\*. Furthermore, the position that I have just forced is clearly one successful interpretation of

McTaggart's argument.<sup>1</sup> (Note that it does not help to relativise the \*present\* to a time, since this reduces to the tenseless theory.)

The objection here might be that this is unfair: what *is* true is that Plato's belief *was* true when he believed it, i.e., that when he believed it, his present was the ontologically privileged \*present\* moment. But, however much we italicise such tenses, this does not help the theory here under consideration. For no-futurism asserts the reality of more than just the present moment, and this must amount to the following claim (if it amounts to anything intelligible), namely:

- (B1) 'There exists (not now, but located in the \*past\*) a time when Plato believes that his (then) present teaching of Aristotle at *t* is \*present\*'

i.e.,

- (B2)  $(\exists t)(\text{It was the case that: Plato believes that: } t \text{ is *present*})$

And in this, I claim, Plato is mistaken, for *ex hypothesi* *t* is not \*present\* since *t* is \*past\*. (Note that it cannot be said that Plato believed that he taught Aristotle, since this would be to ascribe him a past-tensed belief in 365 BCE, and that is not what he had then; hence, the reason for keeping his beliefs present-tensed within the scope of a past-tensed operator.)

Of course, some tense theorists may insist that this isn't the case, and that it grossly misrepresents the tensed position. They say:

- (B3) It was the case that: Plato believes that: *t* is \*present\*,

i.e.,

- (B4) It was the case that:  $(\exists t)(\text{Plato believes that: } t \text{ is *present*})$

and that Plato's belief was true when *t* was \*present\*, so Plato is not mistaken about anything after all.<sup>2</sup>

I find this account perfectly acceptable as a way to avoid being mistaken. And just as well, since this is not the view I am criticizing, but promoting as the only alternative to the

<sup>1</sup> 'Thus our ... 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 ... [But] 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. And thus again we get a contradiction.' (McTaggart [8] in Le Poidevin and MacBeath [4, p. 33].)

<sup>2</sup> Some might complain that this is a tenseless reading of the existential quantifier. It is: the existential quantifier ranges over all that exists. Presentists require the tenseless reading, otherwise their thesis that only what is present exists is trivial. And if it were restricted to what presently exists, no-futurists could not assert the real existence of the past as well as the present. Maybe they could have two quantifiers, one present-tensed, one past-tensed. Fine, but I'd simply restate the problem as: how can any given no-futurist be sure that it is the present-tensed quantifier that ranges over them and not the past-tensed quantifier?

tenseless theory. For (B4) is a *presentist* story about how to treat statements about the past, and I have no argument with them; far from it: this is the very reason I think presentism is the only tenable tensed position as regards solving the Present Problem. Those tense theorists who are pluralists, however, cannot avail themselves of this solution, for (B4) states that Plato *believed* that *t was \*present\** (which presumably it was when he believed it), but no longer believes any such thing, since he does not exist. Pluralist tense theorists, on the other hand, state at least that past and present times are equally real, i.e., all exist. But this is unintelligible unless it means that there exists a time located in the *\*past\** when Plato *believes* that that time *is \*present\**. For to say there *was* a time when Plato *existed*, and still help yourself to the notion of the past and present being *equally real*, is to have had your cake while still eating it, and I cannot make head nor tail of that.<sup>3</sup>

In short we can say the following. No-futurists can say that when the time *was \*present\** (i.e., later than which no other times existed) Plato's belief *was* true, and he is not mistaken about anything. But this ignores the fact that Plato's time is *not always \*present\**. Yet, if there is a real tenseless fact (which there is, according to Tooley's theory), the constituents of which are Plato, Aristotle and a teaching relation of some sort, then Plato will *continue* to believe that his (then) time is *\*present\**, and in this he is mistaken. This is bad news: even the stopped clock is right twice a day. And since there is nothing in our experience to tell us whether this extra fact holds (that our present is also *\*present\**), the very possibility that the two notions peel apart with no-futurism (a link guaranteed by presentism and the tenseless theory) consequently lands us with scepticism about whether our present is *\*present\**.

Tooley's theory, then, cannot satisfy all the requirements of an adequate theory of time. His conception of a tensed theory does not play any rôle in ascribing tensed statements and beliefs truth-values, and because tensed statements and beliefs have been divorced from the tensed aspect of the world in this way, it leaves open the sceptical challenge posed by the Present Problem, something that cannot satisfactorily be dealt with by no-futurism on pain of contradiction, i.e., without being subject to a convincing interpretation of McTaggart's argument.

(a.i) *A possible response*

Suppose we swallow the conclusion that we are most probably *\*past\**, and that there is a real process of temporal becoming occurring somewhere in the future (i.e., somewhere in the *\*present\**) that only the privileged few get to experience (not that even they can tell!).

<sup>3</sup> At this point it should be noted that not all versions of presentism are immune to the sceptical challenge. Quentin Smith has recently proposed (at a conference at LSE on Time, Reality and Experience, 29 September 2000) what he calls 'degree' presentism, as opposed to 'solipsistic' presentism. Solipsistic presentism, in asserting the existence of only one time, avoids scepticism. Smith's degree presentism, however, is the view that not only are degrees of pastness and futurity from the present, but that *reality* reduces in degrees the further it is from the present, which has full-blown reality. Regardless of any of its other problems, it raises the question: consider those people who have a shady existence until they gain the full-blown property of being *\*present\**, how do we know that we are not in this impoverished state of having shady existence, either as *\*future\** people who are yet to be promoted to such a privileged position, or as those *\*past\** people with whom the full-blown *\*present\** has lost favour?

What is wrong with this? After all, we have learned from special relativity that all may not be as it seems, and that there just are certain limits on what we can know about time.

It is clear that any no-futurist that is motivated to adopt no-futurism on the basis of human concerns and experiences cannot accept this possibility—that is, that we are mistaken in taking the processes that lead them to believe in the flow of time, such as our perception of change and causation, as showing anything about where we are in time—since this would undermine their motivation. For although no-futurism may be thought to do these jobs on the assumption that we are \*present\*, the fact that we cannot guarantee that we are \*present\*, together with the fact that we would have all the same accounting to do anyway if we were \*past\*, shows that the theory cannot account for what it set out to achieve, since it isn't the unreality of the \*future\* that accounts for our experiences, etc., if we are \*past\* people, so it can't be what accounts for our experience, etc., even if we are \*present\* people. The unreality of the \*future\* would therefore be redundant.

Tooley (pp. 379–80), however, is explicit that he is not interested in motivations from experience: his version of no-futurism is motivated by his account of causation (cf. his chapters 3 and 4). It is open, then, for Tooley to accept these results as just another one of those things we have discovered about time. But first, we should question whether our experiences can be so neatly divorced from issues of causation. Since a tenseless fact is a tenseless fact regardless of whether there are later facts than it or not, \*past\* people would believe and experience all the same things if we supposed them to be \*present\*. That is, their causal beliefs and their causal interactions at that time would be no different if that time happened to be \*present\*. Thus, this casts doubt on the claim that an adequate account of causation has anything to do with the existence or non-existence of later times, and thus casts doubt on whether Tooley's argument from causation is sound. The option is not open to argue that these people would not experience or believe the same things because they are \*past\*, since then it would not be intelligible to claim that the world grows by the accretion of *equally existent tenseless facts*. Tooley cannot have it both ways.

Finally, the special theory of relativity (STR). Some might object that I am asking too much of a theory of time for it to be able to guarantee the knowledge that I am \*present\* (if such a privileged time is posited), for STR shows that this cannot be had, and STR is one of our best physical theories. However, this argument is misguided; STR shows no such thing. STR does not cause trouble for the tenseless theory since the tenseless theory posits neither a \*present\* moment nor has any need for absolute planes of simultaneity. STR does, however, cause trouble for tense theorists because of their need for absolute planes of simultaneity. But this is a separate issue from whether a given tense theorist's theory of time can guarantee that their *own* 'now' is \*present\*. I do not take it as a minimal requirement that an adequate tensed theory of time should guarantee that we can know that our own now is \*present\* and also know which events are absolutely simultaneous with our now, and hence \*present\*. If this were the requirement, then apart from having to justify the grounds for it—something far from obvious, unlike the weaker requirement that we can guarantee that *our own* now is \*present\*—then the argument from STR would be a good one: STR shows that we cannot know such things, that *no* theory of time can meet such a requirement. But if we believe, with the presentists, that only the present exists, then we can conclude that we are indeed \*present\*. Everyone else that exists can conclude the same thing. And further, presentists should say that there is a fact of the matter

whether one observer is absolutely simultaneous with another, i.e., whether both observers are \*present\*. All that STR shows is that we cannot *know* such facts, not that there are none. But this is very different from saying that we cannot know that *we* are \*present\*, for we can certainly know *that*, if we are presentists, and nothing in STR precludes it. So, if Tooley does take my sceptical conclusions as just another one of those discoveries about time, then that is one more weird and wonderful fact about time that he cannot know that the presentist can, and this must surely be counted as a massive disadvantage of his theory.

(b) *McCall's branching model dropped*

McCall's theory [7] states that whereas there is only one (actual) past and present, there are many equally real possible future 'branches', and time's flow amounts to the dropping off of these branches as one of them becomes actual. So whereas Tooley conceives of reality growing, McCall conceives of reality shedding, but both conceive of time's flow as a change in what exists. The \*present\*, in McCall's theory, is distinguished as the point at which these future branches become actual.

McCall's conception is represented in the following diagram:

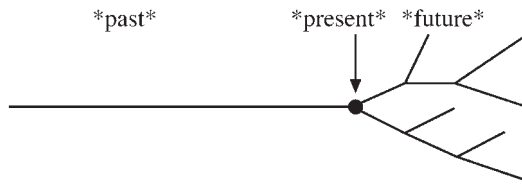


Figure 1.

McCall argues that this model has many explanatory virtues, such as accounting for 'the direction and flow of time, the nature of scientific laws, the interpretation of quantum mechanics [in its account of quantum non-locality], the definition of probability, counterfactual semantics, and the notions of identity, essential properties, deliberation, decision, and freewill' (McCall [7, preface]). McCall argues that these features give us good reason to think that it is the correct model of the universe however implausible it may appear at first sight. Nevertheless, there is an objection that such theories must address. But, in meeting this objection, I say McCall's model still fails to meet the Present Problem in a most disturbing way.

Smart [13] argues that in order to make sense of tensed theories of time, such as those of McCall and Tooley, higher dimensions of time must be invoked, for changes of temporal properties in events are themselves changes *in* time and therefore require a meta-time in which this change can take place. And specifically against McCall, in his [14], Smart argues that because the shape of the tree structure is different at different times:

This seems to imply a proliferation not only of branches of the shrub but also a proliferation of shrubs. After all a given shrub either has or has not branches on a certain lower part ... of its trunk. A single space-time universe surely either has branches before  $t$  or it does not have branches before  $t$ . We must suppose therefore a vast multiplicity of universes, one for each value of  $t$ . Think of a universe with

branches after *t* but none before *t* as a card with a shrub drawn on it. Then McCall’s picture suggests ... that there is a super-universe which is like a pack of continuum-many cards, one above the other, cards higher in the pack portraying a longer unbranched ‘trunk’ than those lower in the pack (p. 7).

Furthermore, this argument applies *mutatis mutandis* to no-futurism (such as Tooley’s): there must be ‘a whole array of universes so that “later” ones have more content than “earlier” ones’ (p. 10). So, Smart concludes: ‘... [I]n order to make sense of a dubious notion of pure becoming we end up by postulating a bloated universe’ (p. 10).

Now, although Smart’s argument is one from excessive ontological commitments of such theories, we can extend his argument and raise sceptical worries concerning *our* place in this deck of cards. Presumably, we would prefer (now) to be on the top card of the deck, but if all cards are real, and consequently, all individuals on each card are as real as each other, how can we guarantee we’ve been dealt such a lucky hand and are located where we hope we are?

We needn’t, however, concern ourselves with spelling out this worry, for McCall does have an ace up his sleeve. For this problem only arises once the commitment to higher dimensions of time has been established. But this is something tense theorists need not concede, for, as McCall notes (pp. 10 & 31) a change of temporal properties is not something that itself takes place *in* time, but is rather precisely what time’s flow *consists in*. This fair response certainly avoids Smart’s objection from bloated ontological commitments, and consequently avoids any sceptical problem that it could be said to generate. Nevertheless, this response in no way addresses the Present Problem, which could be rephrased as: although we may grant that there is only one card in McCall’s deck, what guarantee have we that we are located at the first node of the shrub drawn on this card?

Similar arguments can be made *mutatis mutandis* against McCall’s theory in regard to the status of *\*past\** people as were made against Tooley’s, so I shall not spell them out here. More worrying considerations that affect McCall’s theory concern those equally real *\*future\** people. Again, there is nothing to rule out the possibility that we might be them, precariously perched on one of the branches; and disturbingly so, since they (i.e., *we!*) may drop out of existence at any moment as soon as one of the other branches becomes actual. Suppose we shift Figure 1 back in time, and are located in the *\*future\** as follows:

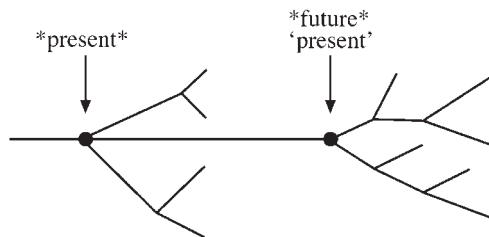


Figure 2.

According to this view, we will drop out of existence as soon as someone (possibly one of our past selves) in our past, that is to say, in the *\*present\**, decides on a course of action that conflicts with what happens along our branch. This is clearly absurd. We’re not

\*future\* people, let alone *possible* \*future\* people who, in the history of the world, never will become (became?) actualized. But could we ever know? I see no way the theory can rule out the unsettling possibility that we may drop out of existence. It won't do for McCall simply to stick a 'you are here' arrow on his diagrams (e.g., pp. 3, 4 & 63). And even if we were \*future\* people with the \*present\* moment somewhere in our distant past, we would still have all the same things to account for. But since our present is not *the* \*present\*, such things cannot be accounted for in terms of branches in our future dropping off as they become actualized. But if branches do not need to drop off to account for our experiences, etc., then why do they need to drop off at *the* \*present\*? And furthermore, it is difficult to see how the dropping off of branches does account for our experience of the flow of time anyway, given that for McCall too, it is tenseless facts that make our tensed statements and beliefs either true or false, consequently separating the tensed aspect of the world from our tensed beliefs.

### III. Tensed truth-conditions: token-reflexive or non-token-reflexive, that's not the question

It might be thought that the problems encountered by pluralist tense theorists could be avoided by giving the correct account of truth-conditions for tensed statements. Tooley and McCall adopt tenseless truth-conditions for tensed statements and it might be thought that the arguments above show that this is where the problem lies. But I will now show that this is an independent issue.

Mellor [9, p. 101] thinks that tensed theories of time must supply tensed truth-conditions for tensed statements. Furthermore, he thinks that these truth-conditions must be non-token reflexive, as follows:

(NTR.1) Any token of '*e* is present' is true iff *e* is \*present\*

(NTR.2) Any token of '*e* is past' is true iff *e* is \*past\*

(NTR.3) Any token of '*e* is future' is true iff *e* is \*future\*

Mellor then argues that such accounts have incredible consequences, and should therefore be rejected. Because tensed tokens are made true, according to these tensed theories, by tensed facts, all tokens of '*e* is past' are made true by the same tensed fact, namely that *e* is \*past\*, all tokens of '*e* is present' are made true by the same tensed fact, namely that *e* is \*present\*, and all tokens of '*e* is future' are made true by the same tensed fact, namely that *e* is \*future\*. That is, the truth of various tensed statements depends on the tensed facts alone regardless of when the statements are tokened. But, if tokens do change their truth-values, then according to Le Poidevin [2]:

This makes nonsense of tensed assertion ... [For] if we say 'It is raining', we only rule out dryness for the time of the utterance, not for the indefinite past or future. But if that very utterance is capable of becoming false, then we must interpret it as ruling out dryness at all other times. This means that we could never be in a position to make any tensed assertions, nor to believe any made by anyone else. This is clearly absurd (p. 55).

Tensed theorists wishing to adopt the non-token-reflexive account should in response distinguish between truth-at-a-time and truth *simpliciter*.<sup>4</sup> This allows them to say that ‘Plato is being born’ is true at that time *t*, although false at the \*present\* time, i.e., false *simpliciter*. This is intuitively obvious and solves the problem with tensed assertion, since although such assertions change their strict truth-value, if they ever were true at *t*, they remain true-at-*t*, which is the relevant time people should believe them, act upon them, etc.

This solution alleviates the sting of Mellor’s objection. According to the non-token-reflexive accounts, if the token ‘The Queen is dead’ is said earlier than the Queen’s death, then it is false until the Queen’s death becomes \*present\*, in which case that very token becomes true. But that tokens change truth-value is untenable, according to Mellor, because ‘No one thinks, for example, that my death will posthumously verify every premature announcement of it!’ [9, pp. 78–9]. However, the distinction between truth and truth-at-a-time above makes the position palatable, because it allows us to keep hold of the idea that the token if once true will always remain true, i.e., will remain true-at-that-time for all time, and yet according to \*present\* fact, is false, i.e., false *simpliciter*.

This is a plausible account that gives an explanation of the conflicting intuitions. However, it will not help avoid the absurdity involved in holding a tensed position that asserts the existence of more than the present moment. For if \*past\* times are as real as the \*present\* time, then at \*past\* time *t* a speaker’s utterance of ‘*e* is present’ is made false by the fact that *e* is \*past\*. So we have a case of the Present Problem: the speaker is mistaken in thinking that *e* is \*present\*. The solution offered here is to distinguish truth *simpliciter* from truth-at-a-time. But surely we do not want to concede so much and admit that although something could be true-for-us-at-a-time it could in an absolute sense be false *due solely to the fact that our present is not \*present\**? But then either we fall into contradiction by guaranteeing that our present is \*present\* (as explained in II above), or we simply relativize truth to a time, and it has collapsed into the tenseless truth-conditions position.

Presentism, however, can adopt this non-token-reflexive account. Following Prior ([11, pp. 79–82]; [12, pp. 122–6]), presentists could construct times from certain sets of propositions, namely the conjunctions of all those present-tensed propositions that we would say were true at that time. This gives presentists the guarantee that they are not mistaken about which time is \*present\*, for from the fact that only one time has a real instantiation, together with the fact that the time in which we live is not a set of propositions, but real, we can derive the conclusion that our time is \*present\*. This allows presentists the warrant for thinking that their statements about the present are true *simpliciter*, rather than merely true-for-them-at-that-time.<sup>5</sup>

<sup>4</sup> I take my cue here from Adams [1] in his analogous distinction in the possible worlds debate between truth *simpliciter* and truth-at-a-world.

<sup>5</sup> Of course, the success of this response depends on how presentism is to be understood: if there is no such thing as the past, then there is no such thing as a past token to have a truth-value. But if times are some sort of construction from present-tensed propositions, an ersatz theory of past (and future) times becomes possible, according to which propositions can be true-at-a-time but true/false *simpliciter*, in the same way that propositions can be true-at-a-world but true/false *simpliciter* according to ersatz theories in the possible worlds debate. For such an ersatz presentism, see my ‘A Statement of Presentism’ (forthcoming).

An alternative to the non-token-reflexive theory is the tensed token-reflexive account of truth-conditions, such as offered by Lowe (e.g., in his [6, p. 45]). This account runs as follows. The tenseless token-reflexive account holds:

- (T1) An utterance  $u$  of ‘ $e$  is present/occurring now’ is true iff  $u$  is simultaneous with  $e$ .

Here the ‘is’ is tenseless. However, tensed theorists such as Lowe suggest we read the ‘is’ as present-tensed. We then get something along the following lines:

- (T2) An utterance  $u$  of ‘ $e$  is present/occurring now’ is now true iff  $u$  is now simultaneous with  $e$ .

And for completeness we must add:

- (T3) An utterance  $u$  of ‘ $e$  is present/occurring now’ was true iff  $u$  was simultaneous with  $e$ .

- (T4) An utterance  $u$  of ‘ $e$  is present/occurring now’ will be true iff  $u$  will be simultaneous with  $e$ .

This theory has the advantage over the non-token-reflexive account that the truth of tensed tokens depends to some extent on when it is tokened, and so avoids the objections that Le Poidevin and Mellor raise against the non-token-reflexive theory: if ‘The Queen is (presently) dead’ is tokened before the Queen’s death, and is therefore false, it will not become true when the Queen dies, but will remain false.

This account, however, is still subject to the Present Problem depending on how the tenses are to be interpreted. For if ‘was’ and ‘will be’ mean ‘is true at a moment of \*past\* time’ and ‘is true at a moment of \*future\* time’ respectively, then anyone at these times tokening ‘ $e$  is present/occurring now’, although not mistaken about whether  $e$  is occurring then, are certainly mistaken in believing that their ‘now’ indexes the \*present\* (on pain of contradiction). Again, however, this account is perfectly acceptable for a presentist who prefers to give token-reflexive truth-conditions for tensed statements, for the same reasons as are given above.

In sum, it does not matter which of these accounts tense theorists adopt; rather, the issue is whether the tensed theory in question asserts more than one real time. Or rather, the issue is where in time the tense theorist locates the truthmakers for the tensed statements, for if they are located anywhere other than the present, scepticism about where we are located immediately arises.

Of course, some reject the notion of truthmakers altogether—after all, the truthmaker story is a theory about truth, not time. But it is hard to establish what such people actually believe when they reject the truthmaker story other than the platitudes that everyone believes about time; that is, it is hard to see how they can make a real distinction between the tensed and tenseless views. For most now agree that tensed statements cannot be reduced in *meaning* to tenseless statements: both sides agree that tense is irreducible in this sense. Thus, unless a difference between tensed and tenseless views is located at the level of the *factual* by invoking truthmakers of some sort, it is hard to see how tensed and

tenseless theories can be peeled apart. But since Tooley and McCall and many other tense theorists do already accept the truthmaker story, I need not concern myself here with arguing for the stronger contention that the truthmaker theory is a necessary presupposition of a substantive tensed-tenseless debate, and thus something that should be accepted by all who take the debate seriously. So my argument is essentially of the conditional kind: *if* you buy the truthmaker story, then you must be careful to satisfy the minimal requirement that any adequate theory of time should, namely to satisfactorily answer the Present Problem.

This still leaves tense theorists with quite a bit of scope. They may still claim that only the past and present are real, for example. Only they must interpret this as: statements about the past and present are made true by present facts, and that statements about the future are neither true nor false (or all false, depending on taste) either because there are *no* facts to make them true, or because there is no *unique* set of facts about what will happen, just many sets of facts about possible futures. The drawback, of course, is that an account needs to be given of the nature of these facts: what, on this view, makes it true to say ‘The First World War did happen’? The most transparent option is to say that the First World War is located in the \*past\*. On a tenseless interpretation, this is unproblematic for tenseless theorists. On a tensed interpretation, I have shown this option lands tense theorists in trouble with the Present Problem. A satisfactory account of present truthmakers for past-tensed statements is yet to be given by presentists.<sup>6</sup>

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