The unreality of tense

Change is clearly of time's essence, and many have thought it the downfall of the tenseless view of time – that only a tensed view of time can account for it. In fact the opposite is true. The reality of tense is disproved by a contradiction inherent in the idea that time flows: i.e. that things, events and facts really change when their tenses (i.e. locations in McTaggart's A series) change from future to present to past.

Change, obviously (if vaguely), is having a property at one time and not at another. More specifically, it is something having incompatible properties – such as being at different temperatures or in different places – at different dates (i.e. locations in McTaggart's B series). Thus cooling is a change of temperature: something's being first hot and then cold. Movement likewise is a change of place: something's being first in one place and then in another. Similarly, there are changes in the sizes, shapes, colours and other properties of things. In each case something has one of several mutually incompatible properties at one B series time and another one later.

This tenseless idea of change is basically right as well as being obvious. But there are objections to it, of which two especially have long preserved a tensed alternative. The first is that it does not really distinguish change through time from change across space. Properties can after all vary from place to place as well as from time to time. A poker, for example, may be simultaneously hot at one end and cold at the other: why is that not change, as much as the whole poker being hot one day and cold the next? We could of course define change to be variation in time as opposed to variation in space – but only given some other way of distinguishing time from space. If time is marked off only as the dimension of change, we should be arguing in an indecently small circle. But it is not obvious how else to distinguish time from the dimensions of space.

Consider a clock's second hand passing successively the figures '1' and '2'. The latter event is both later than the former and to the right of it. We see this as change (namely movement), which is how we distinguish the temporal and spatial relations of the two events. Specifically, it is how we tell a thin hand moving across the clock face from a fat one spread statically across it in two spatial dimensions. In short, we perceive the temporal relation in this case by perceiving change. Similarly for changes of place, temperature, colour and everything else. To see that one event is later than another is to see something change. How else could time be perceived or understood, except as the dimension of change? But change cannot then be defined as variation in time. And the objection to tenseless time is that it has no other way of defining change, and so in particular no way of distinguishing change from spatial variation.

This objection is reinforced by the other one, namely that the tenseless view of time reduces change to changeless facts. If a poker is hot one day and cold the next, then those always were and always will be its temperatures at those two dates. *B* series facts of this kind do not change with time: that after all being the mark of the *B* as opposed to the *A* series. And as for time, so for space. There is no spatial analogue of change in a poker's being simultaneously hot at one end and cold at

the other. The hot and cold ends of a poker are not a case of 'spatial change', because they coexist: what we might call the 'spatially tenseless' world contains them both. The ends of the poker are simply differently located in tenseless space: i.e. in the space of maps, which identify places without reference to the spatial present (*here*). Likewise, the hot poker and the cold coexist in a temporally tenseless world. It contains them both, only located in different parts of tenseless time. And if, as everyone agrees, coexistence prevents change in the spatial case, how can it be compatible with change in time?

The advocate of tensed time has a ready answer to these questions. Change, he says, is basically the changing tense (*A* series location) of things and events moving from future to past. It is peculiar to time because the *A* series has no real spatial analogue. In other words, the spatially tenseless 'token-reflexive' truth conditions of 'spatially tensed' thoughts and sentences (e.g. that for any place *x* what makes anyone 'token' – i.e. think, say or write – '*x* is here' truly is that they do so at or within *x*) are all there is to spatial tense. There are not also 'spatially tensed' facts (like *x* being here) which are facts only in some places and not in others. But on the tensed view of time the temporally tenseless token-reflexive truth conditions (e.g. that for any *B* series location *t* what makes any token of '*t* is now' true is its occurring at or within *t*) are *not* all there is to temporal tense. In the temporal case, over and above all such tenseless facts, there are tensed facts (like *t* being now) which are facts only at some *B* series times and not at others. In particular, there is a present moment (*now*) which is forever changing its date (*t*). The reality of the clock hand's movement consists ultimately in the events of its passing the figures '1' and '2' becoming successively present and then past; and similarly for all other changes.

On the tensed view, then, change is primarily the successive temporal presence of earlier and later things and events. This defines the tenseless temporal relation *earlier* (and hence *later*): one event is earlier than another if and only if its ever-changing tenses make it present first. And if there are no real spatial tenses, this definition has no spatial analogue. The tenseless spatial relations of events and things are *sui generis* – and that is the difference between space and time. In time, but not in space, the tenseless *B* series, and hence the idea of change I started with, is supposed to be derived from the *A* series. Change is still defined as variation through time; but by defining time first as the dimension of changing tense, the tensed view prevents this definition of change begging the question against its spatial analogues.

This tensed view of change may be supported by further doctrines about what else turns on the difference between present and future. There is for example the view that existence turns on it, i.e. that coming to be present is coming to exist. This provides a still more profound basis for distinguishing time from space, as the dimension in which things come successively into existence. However, it makes no odds what else turns on tense unless the idea of changing tenses actually does account for change; and despite first appearances to the contrary, the fact is that it doesn't.

To start with, one might accuse the tensed view itself of begging the question against spatial change by denying the reality of spatial tenses. Spatial tenses like the hereness of *x* do after all vary across space just as temporal tenses like the nowness of *t* vary through time. If change is different events being temporally present at different times, why is it not different things being spatially present – here – at different places? To such accusations upholders of tense reply that we have a

direct intuition of temporal presence which is lacking in the spatial case. We see things laid out tenselessly in space, they say, whereas we do not see things laid out tenselessly in time.

But this is not true. When we see the tenseless order of two events (e.g. a clock hand passing '1' earlier than it passes '2'), we don't thereby see their tenses. Astronomers who observe that one celestial event is earlier than another don't do so by seeing that it's more past. Celestial events don't look as past as they are (if they did, cosmology would be a great deal easier than it is): indeed they don't *look* past at all. Tense is not a perceptible property of the things and events we perceive. One cannot for example refute a fortune-teller who claims to see the future by pointing to the visible pastness of what he sees in his crystal ball, since it will look just the same wherever it is in the *A* series. The fact is that we only know the *A* series whereabouts of what we see by knowing how much earlier it is than our seeing them – an experience which as we have it we admittedly know we're having *now*, but only for the same trivial token-reflexive reason that we know we're having it *here*.

In short, we see things varying through time just as tenselessly as we see them varying across space. But although the tensed view of change could easily be convicted in this and other ways of distinguishing time from space no better than the tenseless view, I will not press that charge here. To prefer debatable and relatively trifling charges is pointless when a capital offence can be proved against the same party. The capital charge I want to press here is self-contradiction, an offence of which tensed views of time and space are equally guilty. But as no one will defend the tensed view of space, I need only give the prosecution's case against the tensed view of time.

The proof of contradiction in the tensed account of change is not new. It was given by J. E. McTaggart in 1908 and has been much debated since. To me it seems beyond all reasonable doubt, but since it is still disputed, I fear I must present it yet again. Two factors however encourage me to hope for more success than McTaggart had. One is that he attacked time itself. He thought both that time needs change and that change needs changing tense, and so thought to convict time along with tense. However, the obvious reality of time defeated him, and unfortunately drew suspicion on his whole argument. Tense in short has been wrongly acquitted to save the innocent time. But we need not acquit the guilty in this case in order to save the innocent. What is wrong with McTaggart's attack on time is not his attack on tense but his contention that disposing of tense disposes of change. Change can in fact be explained and distinguished from spatial variation without any appeal to tense (see my *Real Time II*, ch.8). And given that, the reality of changing tense can safely be denied without imperilling the reality of change and hence of time itself. Once this is realised, McTaggart's proof will, I hope, meet much less resistance.

The other factor encouraging me is the now standard account of the tenseless token-reflexive truth conditions of tensed thoughts and sentences. Although this factor is not new, it was not there in McTaggart's time, and it should make his proof more persuasive. For on the one hand it should make the validity of his proof more obvious and, on the other, its conclusions more palatable. Tense, it turns out, is not being banished altogether, merely replaced where it belongs: namely in our heads, as a way of thinking which we need in order to be capable of timely action. But that is another story (see *Real Time II*, ch.6).

McTaggart's proof

McTaggart's proof is very simple. Many *A* series locations are incompatible with each other. An event which is *yesterday*, for example, cannot also be *tomorrow*. Past, present and future tenses are mutually incompatible properties of things and events. But because they are forever changing, everything has to have them all. Everything occupies every *A* series location, from the remotest future, through the present, to the remotest past. But nothing can really have incompatible properties, so nothing in reality has tenses. The *A* series is a myth.

The defence has an immediate and obvious riposte to this attack, and its rebuttal is unfortunately much less obvious; which is why McTaggart's proof has rarely carried the conviction it deserves. The riposte is that nothing has incompatible tenses at the same time. Nothing is present *when* it is past, or future when it is present. Things and events only have these properties successively: first they are future, then present, then past. And nothing prevents things having incompatible properties at different times. On the contrary, that is how change is defined: the successive possession of incompatible properties. All McTaggart has shown is that changing tense fits that definition, as it should.

To rebut this riposte, McTaggart asks when, in tensed terms, things and events have their various tenses; and here it will help to use some symbols. Let P, N and F be respectively the properties of being past, present (i.e. now) and future, and let *e* be any event. Then *e* being past, present and future I write respectively as 'P*e*' 'N*e*' and 'F*e*'. Complex tenses I represent by repeated ascription of P, N and F: thus 'PF*e*' means *e was* future, 'FPN*e*' means *e will have been* present, and so on. '~', '&' and '|–' as usual mean respectively 'not', 'and' and 'entails'.

Then McTaggart's basic argument is that, on the one hand, the three properties P, N and F are mutually incompatible, so that for any event *e*

(1) P*e* |– ~N*e*; N*e* |– ~F*e*; F*e* |– ~P*e*; etc.

On the other hand, the inexorable change of tense means that every event has all three *A* series locations, i.e.

(2) P*e* & N*e* & F*e*.

But (1) and (2) cannot both be true; since if (1) is true, two of the statements in (2) must be false, so (2) as a whole must be false. But our concept of tense commits us to both (1) and (2); so it leads us inevitably into contradiction and thus cannot apply to reality. Reality therefore must be tenseless: there are no tensed facts.

To this the riposte is that *e* has no more than one of these incompatible properties at once, so there is no contradiction after all. Suppose for example that *e* is actually present, i.e. N*e*. Then *e* is neither past nor future, i.e. both 'P*e*' and 'F*e*' are false, as (1) requires. The truth rather is that *e will be* past and *was* future, i.e. not (2) but

(3) FP*e* & N*e* & PF*e*,

which is quite compatible with (1).

So it is. But, as McTaggart remarks, there are more complex tenses than those in (3), and not all combinations of them are so innocuous. Specifically, there are also PP and PN, FF and FN, and NP, NN and NF. And just as every event has all *A* series locations if it has any of them, so it also has all these other complex tenses. For example, whatever has any simple tense obviously also has it *now*, i.e.

Pe |– NP*e*; N*e* |– NN*e*; Fe |– NF*e*.

Obviously also, whatever is past *was* present and *was* future, and whatever is future *will be* present and *will be* past, so that

P*e* |– PN*e*; P*e* |– PF*e*; F*e* |– FN*e*; F*e* |– FP*e*.

Moreover, whatever is sufficiently past also *was* past, e.g. what happened two days ago was already past yesterday; and sufficiently future events likewise also *will be* future: which gives us PP and FF as well as P and F.

In place then of the original three simple tenses, we have the nine compound tenses PP, PN, PF; NP, NN, NF; FP, FN, FF. But McTaggart's argument applies just as well to them. Because of the way tense incessantly changes, every event that has any of these nine tenses has to have them all; but they are not all mutually compatible. For example, FF and PP are incompatible, since what will be future cannot also have been past. And NP, NN and NF are even more clearly incompatible, because they are equivalent to the simple P, N and F.

The riposte will again be made, that events do not have these incompatible tenses all at once. But again, saying in tensed terms just when they do have them only generates another set of properties, including mutually incompatible ones like PPP, NNN and FFF, all of which every event has to have. There is, in other words, an endless regress of ripostes and rebuttals, a regress that is vicious because at no stage in it can all the supposed tensed facts be consistently stated.

The defence of McTaggart

That, basically, is how McTaggart put his case. His critics have reacted by denying the viciousness of his regress. At every stage, they say, the appearance of contradiction is removed by distinguishing the different times at which events have different tenses. They ignore the fact that the tensed means they use to distinguish these times are also subject to the contradiction they are trying to remove. However, the debate by now is too well worn to be settled by mere repetition of McTaggart's proof, sound though it is. To change the metaphor, too many people have managed to inoculate themselves against it. If it is to wipe out belief in real tenses, as it should, a more

immediately virulent strain of it is needed, a strain that I believe is best nurtured on the token-reflexive facts that make tensed sentences true or false.

Before developing the new strain, however, it is worth neutralising some antidotes that have been proposed to McTaggart's original proof. First, I should perhaps remark that although I have dealt only with the unqualified past, present and future, the proof applies also to more precise *A* series locations. *Yesterday* and *three days ago*, for example, are likewise incompatible properties of things and events of less than a day's duration, both of which they must all nevertheless possess. But there is no point in complicating the discussion by bringing all these other tenses into it explicitly. If the argument works for P, N and F, it will work for all tenses; and if not, for none.

Secondly, I have followed McTaggart in ascribing these problematic *A* series properties to events. Tense logicians mostly prefer to treat 'P', 'N' and 'F' as 'operators' (analogous to 'It is not the case that' or 'It may be the case that') prefixed to present tense core sentences or propositions. This is tantamount to regarding P, N and F as properties, not of events, but of tensed facts. Where, for example, McTaggart and I start with a thunderstorm, tense logic starts with the sentence or proposition saying that a thunderstorm is happening now. Where we say the thunderstorm is two days past, they say the fact of its happening now is two days past, i.e. the present tense sentence or proposition saying that it is happening now was true two days ago. In the symbolism above, this amounts to replacing '*e*' throughout by 'N*e*'. But it makes no odds to the argument, as readers may verify for themselves: facts are no better at being at once both and not both past and present, present and future, etc. than events are.

Nor does it help to distinguish the 'object language', in which events are said to be past, present or future, from a 'meta-language' in which object-language sentences are said to be true or false. At least, it helps only if the meta-language sentences are the tenseless ones used to give tensed object-language sentences their tenseless token-reflexive truth conditions: e.g. 'Tokens of "*t* is now" are true iff they are located at *t*'. When the meta-language sentences are themselves tensed, the problem simply reappears in a new guise. Truth and falsity are now the incompatible properties of the object-language sentence types (since tensed truth conditions are supposed not to be token-reflexive: if they were, as we shall see later, they would not be tensed). But to say that a particular sentence type is true – i.e. that any token of it would be true – is to say that it is not false, and *vice versa*. Yet any true and non-trivially tensed sentence type will also be (sometime) false. This now is McTaggart's basic contradiction, and the riposte to it is the same: no tensed sentence type is both true and false at the same time. Meta-language sentences then say when these object-language sentences are true and when false. But if the meta-language sentences are themselves tensed, they too will be both true and false. The contradiction simply recurs in the meta-language. Removing it from there by using a tensed meta-meta-language to say when meta-language sentences are true and when false only leads to McTaggart's regress. Iterating tensed meta-languages no more refutes McTaggart than iterating tensed properties of events or facts does, or than iterating tensed operators on propositions or sentences within a single language.

The plain fact is that nothing can have mutually incompatible properties, whether they be tenses or truth-values: neither events, things, facts, propositions, sentences, nor anything else. I prefer therefore to stick to events and things, as being the natural inhabitants of *A* series locations. I

will not translate the problem into other and more fashionable idioms, which only pander to the erroneous conviction that McTaggart can be thus easily answered.

Thirdly, however, I must deal with the complaint that in symbolising McTaggart's argument I have myself begged the question against tenses. Specifically, in using 'P*e*' to say that *e* is past, I have left out the verb 'is'. By so doing I have tacitly treated the 'is' in '*e* is past' as a tenseless copula, which is why *e*'s being past, present and future appear to be contradictory. For in fact the verb 'is' in '*e* is past' is tensed, i.e. it really means that e is *now* past. And given that, the contradiction vanishes, since if *e* is now past, it is not also now present or now future. Of course, it *was* future and it *was* present, but that is quite compatible with *e* being now past. In short, the supposed contradiction has been artificially generated by suppressing the essentially tensed verbs used in ascribing to *e* the properties P, N and F.

This complaint misses the point of tense completely. The *A* series is supposed to be a feature of the world, not of verbs. We don't need tensed verbs to make tensed statements, i.e. statements ascribing *A* series locations to things and events. We can do that just as well by using adverbs and phrases like 'yesterday', 'this week' and 'next year'. They make verbal tenses redundant, and so do the expressions 'in the past', 'now' and 'in the future', i.e. 'P', 'N' and 'F'. That is their function: to take over the semantic roles respectively of the past, present and future verbal tenses to which by definition they are equivalent. Given these expressions, verbs might as well be tenseless, i.e. take the same form regardless of the *A* series location of the events they refer to. Suppose for example that 'happens' is made (by stipulation if necessary) into such a tenseless form. Then 'It happened' means 'It happens in the past'. If the past tense form of the verb in 'happened in the past' were not redundant, that phrase would have to mean PP rather than P, which it clearly doesn't. It simply means 'happened'. Just as 'in the past' is superfluous given the past verbal tense, so the verbal tense is superfluous given 'in the past'.

As for the past, so for the present. Adding 'now' to 'It happens' or 'It is happening' makes the present tense connotations of the verb superfluous. Given the 'now', 'happens' is as tenseless in 'It happens now' as in 'It happens in the past' and 'It happens in the future'. And as for 'happens', so for 'is'. The temporal meanings of '*e* is past', '*e* is present' and '*e* is future' are supplied entirely by the words 'past', 'present' and 'future'. The 'is' *is* a mere tenseless copula, present only because English grammar gives sentences verbs even when, as here, they contribute nothing to the content. Nothing therefore is left out by abbreviating these sentences to 'P*e*', 'N*e*' and 'F*e*'. So the abbreviation can generate no contradiction that was not already there.

Anyone who still says the 'is' in '*e* is past' is present tense, so that '*e* is past' means '*e* is now past', will have to say what tense 'is' then has in '*e* is now past'. It is clearly either tenseless or present tense – and if tenseless, McTaggart's contradiction reappears at once, because '*e* is now past' is not always true. It cannot be, since it must be true when and only when '*e* is past' is true: otherwise those two sentences would not mean the same and the one could not replace the other. So all we have to do to regenerate McTaggart's proof, as readers may again easily verify, is replace 'P', 'N' and 'F' throughout by 'NP', 'NN' and 'NF'.

But if the 'is' in '*e* is now past' is tensed, as in '*e* is past', the same vicious regress appears in the form of the verb itself. For '*e* is past', meaning '*e* is now past', must now also mean '*e* is now

now past', in which again the 'is' must either be tenseless or present tense. If tenseless, we again get McTaggart's argument, starting this time with 'NNP', 'NNN' and 'NNF'; and if present tense, the regress continues with '*e* is now now now past', '*e* is now now now now past', and so on *ad infinitum*. And for no sentence type in this endless sequence can we consistently give tensed truth conditions. It is no use saying, at any stage in the sequence, that the last sentence type in it is true *now*, because whether that is so depends on when *now* is. Saying this merely generates the next type in the sequence, concerning which the same question arises. To stop and give a definite answer at any stage only produces a contradiction, because if the sentence is true (at some present time) it is also false (at some other). The only way to avoid contradiction is never to stop at all, which is tantamount to admitting that the original sentence type has no tensed truth conditions, i.e. cannot be made true or false by any tensed fact such as that *e* is past, *e* is now past, *e* is now now past, etc. In short, supposing that there are such facts is either self-contradictory or useless for saying what makes tensed sentences true or false.

McTaggart and token-reflexives

So much by way of reinforcing McTaggart's own proof. But in case it still does not convince, I will now put it explicitly in terms of token-reflexive truth conditions. First, we must note that tensed facts are supposed to provide *non*-token-reflexive truth conditions for tensed thoughts and sentences. Just as all tokens of 'Snow is white', whenever and wherever they occur, are made true by the single fact that snow is white, so all true tokens of '*e* is past', whenever they occur, are supposed to be made true by the single fact that *e* is past – or, if for some reason that won't work, by the fact that *e* is now past, or that *e* is now now past, etc. All tokens of the same tensed type are supposed to have the same *tensed* truth conditions, however much their tenseless truth conditions may vary from token to token.

This looks possible because what prevents tensed thoughts and sentences having non- token-reflexive tenseless truth conditions is that tenseless facts, unlike tensed ones, are facts at all dates. That is why the tenseless truth conditions of tokens of '*e* is past' must vary with their dates, to allow their truth values to vary from 'false' before *e* to 'true' after it. But since the tensed facts that *e* is past, now past, now now past, etc. are *not* facts at all dates, but only at dates later than *e*, they should be able to give all tokens of '*e* is past' the same tensed truth condition: namely, that *e* is past (or now past, or now now past, ...).

But they can't. None of these supposed tensed facts will give '*e* is past' correct non- token-reflexive truth conditions, because even when they *are* facts, its tokens' truth-values still depend on their own dates. Thus at any date *t* later than *e*, the facts are that *e* is past, now past, now now past, etc. But none of these facts makes tokens of '*e* is past' which occurred before *e* true at *t*. Those tokens – as opposed to the *type* '*e* is past' – are false then, just as they always were and always will be. (A long-lasting token can of course vary in truth-value during its lifetime: e.g. a token of '*e* is past' printed before *e* will start off true and end up false. But that does not change the truth-value it had earlier – any more than a death posthumously verifies premature announcements of it.)

But perhaps these tensed facts will give '*e* is past' correct non-token-reflexive truth conditions when its tokens' temporal locations are specified in *A* series terms? Unfortunately for them, they won't. For even when it is *now* a fact that *e* is past, *e* is now past, etc., tokens of '*e* is past' are still not all true now regardless of their own *A* series locations. Tokens that are now more past than *e* itself will be false now, just as they always were and always will be. So even when stated entirely in *A* series terms the tensed truth conditions of '*e* is past' remain token-reflexive, i.e. they vary with its tokens' *A* series locations.

And as for '*e* is past', so for all seriously tensed thoughts and sentences, i.e. those whose tokens would be true at some dates and false at others. (For present purposes we may ignore tensed thoughts and sentences made contingently false at all dates by non-temporal facts: e.g. 'Napoleon won at Waterloo last year'. The fact that Napoleon lost is irrelevant to this sentence's temporal meaning: what matters here is how its tokens' truth-values would have varied with time if he'd won.) Some pairs of tokens of any such tensed type will therefore differ in truth-value just because their *B* series locations differ. But whatever has a *B* series location also has, at any *B* series moment, a corresponding *A* series location. So in particular, these pairs of tensed tokens will also always differ in their *A* series locations, with which their truth-values will therefore also always vary. In short, if the tenseless truth conditions of tensed thoughts and sentences are token-reflexive, so must their tensed truth conditions be.

It follows that trying to give tensed thoughts or sentences non-token-reflexive truth conditions, tensed or tenseless, always leads to contradiction. That, for tenseless truth conditions, is what shows why tensed sentences cannot be translated by tenseless ones: since all tokens of any such translation would have to have the same truth-value regardless of their date, they will contradict some possible tokens of the original sentence, whose truth-values do vary from date to date. And the same goes for tensed truth conditions. Since the truth-value of tokens of any such tensed sentence will also vary with their *A* series locations, our giving them all the same truth-value because some tensed truth condition does or doesn't obtain *now* will inevitably conflict the truth-value of some of the sentence's past or future tokens.

This, in token-reflexive terms, is McTaggart's contradiction. That it is so is most easily seen in the meta-language version of his argument given above. Because the tensed truth conditions of '*e* is past' are token-reflexive, any attempt to state in a tensed meta-language the one tensed fact that makes all its true tokens true is bound to fail. The alleged fact would by definition have to make all tokens of the type true, regardless of their *A* series location, whereas in fact some are always true and others always false. Hence the contradiction. And it is, I hope, easier to see in this version of the argument that complex tenses are no better off, i.e. that the regress of meta-languages McTaggart's critics invoke is indeed vicious. For the above argument applies to tenses of any complexity. Provided only that, as everyone now agrees, all thoughts and sentences of all tensed types have tenseless token-reflexive truth conditions, their tensed truth conditions will also be token-reflexive. And whatever doubts there may be about the token-reflexivity of some complex tenses, there can be none about those McTaggart's critics resort to. For as I have already remarked, unless '*e* is now past', '*e* is now now past', etc., had the same token-reflexive truth conditions as '*e* is past', they could not be substituted for it. And if they do have those truth conditions, then McTaggart's

argument disposes of the tensed facts they allegedly state, just as it disposes of the alleged fact that *e* is past.

Finally, I suppose defenders of tense might ask why tensed truth conditions cannot be token-reflexive, if tenseless ones are. The answer is that they then cease to be tensed. Suppose for example it is now *n* years after *e*: *e* is now past, but that fact alone does not suffice to make all tokens of '*e* is past' now true. However, consider a token that is only *m* years past, where *m* is less than *n*. The token is true, because it is less past than *e* itself. Those are the ostensibly tensed truth conditions of any token of the type: it is true if and only if when it is present *e* is past, i.e. if and only if *n-m* is positive. But if *n-m* is ever positive, it is always positive, because the temporal distance between *A* series locations never changes. The values of *n* and *m* continually increase, but always at the same rate, so the value of their difference stays the same. The fact is simply that the token is – tenselessly – *n-m* years later than *e*. The variably tensed elements *n* and *m* in the supposedly tensed token-reflexive truth conditions cancel out, leaving the already familiar tenseless truth conditions: true if later than *e*, false otherwise.

Similarly for all other tensed sentence types. Their tensed truth conditions are either self-contradictory or token-reflexive; and if token-reflexive, they reduce to tenseless truth conditions. As McTaggart saw, the truth conditions of tensed sentences are either tenseless or self-contradictory. My version of McTaggart's proof started from the fact that all tensed sentences and judgments have tenseless token-reflexive truth conditions. To start with I left open the possibility that tensed sentences also state tensed facts; but we can see now that this is not a real option after all. And while those who have immunised themselves against McTaggart's proof of the unreality of tense may need something like the above argument to convince them, here finally is a much quicker argument which should serve to sway more open minds.

The sole function of tensed facts is to make tensed sentences and judgments true or false. But that job is already done by the tenseless facts that fix the truth-values of all tokens of tensed thoughts and sentences. Provided a token of '*e* is past' is later than *e*, it is true. Nothing else about *e* and it matters a jot: in particular no tensed fact about them matters. It is immaterial, for a start, where *e* and the token are in the *A* series; and if that is not material, no more *recherché* tensed fact can be. Similarly for tokens of all other tensed types. Their tenseless truth conditions leave tensed facts no scope for determining their truth-values. But these facts by definition determine their truth-values. So in reality there are no such facts.