The Growing Block's Past Problems

Abstract:

The Growing-Block view of time is the view (roughly) that past and present events exist and future events do not. A key question for the Growing-Block view is what the past is like. David Braddon-Mitchell (2004; 2013) says that one answer this question (offered by Peter Forrest 2004), that the past is real but dead, amounts to believing that the past is full of zombies – creatures just like us but with no conscious awareness. Braddon-Mitchell claims this commitment to Zombies is a reason to reject the view that the past is real but dead. Fabrice Correia and Sven Rosenkranz (2013) argue that the question is poorly formed, and, although that they accept that the past exists, there is no question to be asked about what it is like.

I outline the problem the Growing-Block view faces in talking about the past and argue that we should resist Correia and Rosenkranz' approach. I consider a particular approach to talking about the past, similar to Forrest's (2004) view of the real but dead past. I show this approach is not so counter-intuitive as Braddon-Mitchell suggests and further show that it requires no 'semantic and metaphysical gymnastics', as Chris Heathwood (2005) has suggested (section 4). In doing these things I make the problem of the past on the Growing-Block view a problem in its history, not its present.

Keywords: Growing Block; temporal ontology; zombies; the past

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I will outline the problem the Growing-Block view faces in talking about the past (section 1) and argue that we should resist Correia and Rosenkranz' approach. I will consider a particular approach to talking about the past, similar to Forrest's (2004) view of the real but dead past (section 2). I will show this approach is not so counter-intuitive as Braddon-Mitchell suggests (section 3) and further show that it requires no 'semantic and metaphysical gymnastics', as Chris Heathwood (2005) has suggested (section 4). In doing these things I will make the problem of the past on the Growing-Block view a problem in its history, not its present.

Section 1: Why the Growing-Block view has to answer questions about its past.

If there are three tense determinations (future, present and past), and the Growing-Block view is committed to these distinctions being metaphysically significant, how does it distinguish between them? It distinguishes between past and future using existence; a metaphysically significant notion if ever there was one. According to the Growing-Block view, past events exist and future events do not. But, without any further information, the Growing-Block view runs into trouble. How can it distinguish between past and present events?

Present events, a defender of the Growing-Block view may point out, are *succeeded by nothing*. That allows us to distinguish past and present events. It will not do, however, since that is not the kind of difference between past and present that would affect our experience of time. As Bourne (2002) argues, if we are guaranteed knowledge of anything, it must be that we are present. A view that allows that we could not possibly tell if we were in the present or the past is a view that will be unpalatable to most. Such a view, as Braddon-Mitchell (2013) remarks "while perhaps coherent, is pretty unpalatable"[1]. The problem, as Braddon-Mitchell (2004) argues, is even worse than I have presented it. Not only does the Growing-Block view risk our being unable to tell if we are past or present, but since there would be so many more past times than present ones, we should have positive reason to conclude that we are not present.

The first response to Braddon-Mitchell I shall discuss, and the more recent, is that of Correia and Rosenkranz. The Growing-Block view, as defended by Correia and Rosenkranz, is committed to quantifying over non-present times when it quantifies unrestrictedly 'at least as far as things in time are concerned' over all THERE IS, in the 'metaphysically speaking, most fundamental notion of quantification (hence small caps)'.[2] I shall call this 'tense-neutral quantification'. I call it tense neutral predication because it allows one to quantify over things without knowing whether or not those things are present. Correia and Rosenkranz think Braddon-Mitchell's error is due to an attempt to make use of similarly unrestricted tense-neutral predication. That is, they deny the possibility of predicating anything of Marie Curie, or Caesar, without knowing what time we are doing the predicating from. If it is 2014, then Marie Curie is dead. If it is 1898, Marie Curie is alive, and doing all sorts of things like experimenting with Radium, or asking herself if she is objectively present. We cannot ask, according to Correia and Rosencrantz, if Marie Curie is experimenting with Radium, or asking herself if she is present, if it is 2014 (which it is).

[1] (2013), p.352.
[2] Correia and Rosenkranz, (2013), p.334

Since we cannot ask if Marie Curie is wondering if she is present (since it is 2014, and Marie Curie isn't alive in 2014), it is fruitless for us to speculate whether this moment, (or this location in spacetime[3]) is present, because if we are in a position to predicate things of ourselves in 2014, Correia and Rosenkranz argue, it follows that this is 2014. Correa and Rosenkranz will respond to Braddon-Mitchell, then, by saying the sceptical question 'how do we know it is 'now' now?', even if reformulated in terms of space-time location, cannot be raised because that would involve asking if predicates apply to us without first knowing whether we are present.

We have, then, a dispute between Braddon-Mitchell and Correia and Rosenkranz over whether or not a sceptical question about our own presentness can be asked on the Growing-Block view. I will, in this section, try to establish what it is that Correia and Rosenkranz are claiming cannot be done, and argue that someone sympathetic to Braddon-Mitchell can argue that the challenge still stands of explaining how we can establish, first-personally, that we are present. To do so, I shall discuss a dispute about the status of people that we think are wholly located in the past. If such people are in a position to raise questions about their presentness, then Braddon-Mitchell's challenge returns, since raising questions about our presentness is clearly compatible with our being past.

Imagine the following situation. It is 2014. We are in the ontology room, quantifying over all the female scientists. You complain there aren't many, and I disagree. 'There are loads', I say, and start listing some: Ada Lovelace, Dorothy Hodgkin, Jocelyn Bell Burnell, Marie Curie… As a defender of the Growing-Block view, I can quantify over all these women, because I'm ontologically committed to all of them, even though some of them are dead.

You ask 'what are they each doing?'. What do I reply? If I'm in agreement with Correia and Rosenkranz's defence of the Growing-Block view, then I say that you have asked a question which only makes sense if it is asked of a living person. You can (coherently) ask what Bell Burnell is doing, but not what Curie is doing. You can, should you prefer, ask what Curie did, but not what she is doing.

You, if you agree with Braddon-Mitchell, might look perplexed, and reconfirm that THERE ARE all the female scientists I listed. I confirm there are, and so you press me: 'If there are such women, what are they doing?'. I explain that they are not doing anything *now,* since they are not alive *now*.

You press me again: 'I didn't ask what are they doing *now*, if that means what are they doing at this moment, I mean what are they doing wherever they are in your ontology!'. Correia and Rosenkranz

[3] Braddon-Mitchell reformulates the problem this way in his (2013) in response to Correia and Rosenkranz (2013)

insist that my only response is to reject this question as incoherent. I can see the temptation to do so (it is hardly the way we talk ordinarily), but, after all, we are in the ontology room, and I have permitted myself to talk about all the female scientists THERE ARE, so I can hardly be punctilious about what is our ordinary way of speaking. If the question about what THERE IS is legitimate, surely questions about *how* it IS should also be legitimate. Correia and Rosenkranz firmly disagree, and here we hit bedrock. The keystone of their response is that, while there is tense-neutral quantification, there is no tense-neutral predication, and tense-neutral predication is required to formulate Braddon-Mitchell's challenge. I, however, think the best hope for the Growing-Block view is engage with the ontology room talk, and to attempt to assuage the concerns about the status of most the things THERE ARE rather than refusing to hear them.

Given that both Braddon-Mitchell and I are, I take it, unsatisfied with the denial that we can ask what dead female scientists are doing in my ontology, I shall consider the second response to Braddon-Mitchell. This response is in the spirit of Peter Forrest (2004). Forrest (2004) does more than Correia and Rosenkranz to try and explain the status of the past on the Growing-Block view. In response to the question 'what are the non-present female scientists doing?', Forrest has an easy reply: 'Curie *et al.* aren't doing anything'. THERE ARE female scientists who AREN'T DOING ANYTHING on account of their being wholly located in the past (i.e. dead). This seems a most reasonable response (to me), but Braddon-Mitchell gets awfully excited about it. 'Zombies!', he cries, and starts ridiculing the view for saying that most people are philosophical zombies; they look just like us, but have no conscious awareness.

One small point to clear up: zombies, as a philosophical term, is usually used to mean creatures who are exactly like us behaviourally, but lack conscious awareness.[4] Forrest is not claiming there are any such creatures, since he claims that Curie *et al* are neither consciously aware, nor exhibiting any behaviour whatsoever. Curie *et al* are not doing anything – neither engaging in activities nor undergoing processes – on account of being dead, which I still think is a reasonable excuse.[5]

Braddon-Mitchell may be wrong that the view is committed to zombies, but he is nevertheless right that most of the people on the view are not consciously aware of anything. His great success, as far as I can tell, is to convince people that the outlandish view is one on which dead people are not conscious, rather than the one on which people who have died are conscious and (wrongly) convinced of their own presentness.

[4] Cf. Kirk (1974),

[5] The exception to this would be the 'process' of receding into the past, and other mere Cambridge changes.

Given he has had such success, however, I will devote the next section to explaining how the Growing-Block view can allow for a distinction to be made between conscious present people and non-conscious people located wholly in the past, before arguing in section 3 that such a distinction is motivated by general considerations about the difference between past and present events.

Section 2: On what there IS and what there was.

Forrest, as I have said, claims that Marie Curie IS (read in a way neutral with respect to tense) not doing anything, given she is wholly located in the past. She IS not conscious, nor IS she engaged in any activity, nor IS she undergoing any processes. Nonetheless, Marie Curie *did*, when she was present, do many things, undergo many processes and have many thoughts that involved conscious awareness. I wish to support Forrest's answer to the question 'what, given our ontological commitment to her, is Curie doing in our ontology?'. In this section I aim to run through my version of this response in a more detailed way, before spending the next section trying to make clear why this response should be appealing, or at least more appealing than Braddon-Mitchell suggests.

Taking my lead from Forrest, I think the Growing-Block view should claim that whether something is active, or doing something, or undergoing processes, or conscious, is an extrinsic matter. Here's what I mean: If we want to know whether x is Φing, wherever x is in our ontology, we should not merely look at x, but look at the relations x stands in. In particular, we should look at what events x is succeeded by. If x is wholly located in the past, then x is not Φing, because a necessary condition on Φing is being succeeded by no events. The next section shall be devoted to motivating this idea, but for now I wish merely to show how it works.

There are two options we might have for talking about the past, illustrated in figure 1. Consider Marie Curie's discovery of Radium in 1898. Various states of Marie Curie are, according to the Growing-Block view, located in 1898, and 1898 is succeeded by many events. (see timeline β). Marie Curie is dead on β, since there are many events after the event that is the life of Marie Curie. Yet, a timeline very much like β accurately represents the current objective state of the Universe, according to the Growing-Block view.

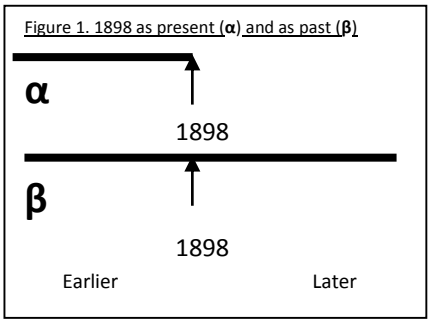

Figure 1. 1898 as present (α) and as past (β)

A curious feature of each thing on timeline β, however, is that when it came into existence it was succeeded by nothing. The events on timeline β came into existence in order, with earlier things coming into existence first, and later things coming into existence afterwards.[6] Moreover, each event has persisted, intrinsically unchanged, since it came into existence. So we know the events on timeline β must have once have been succeeded by nothing, and so been present as represented on timeline α. We know that because the Growing-Block is committed to the existence of the events on timeline β, and is are committed to a story about how those events got to be on timeline β.

When we use the past tense to talk about Marie Curie's discovery of Radium, we are not usually interested in talking about 1898 as it is on timeline β, but about how 1898 was when objectively present, i.e. as represented on timeline α.[7] In fact, it is only in the rarefied context of the ontology room that talking about 1898 as it is on timeline β would even crop up. Correia and Rosenkranz responded to this by rejecting such talk as incoherent, but, as we saw §***1***, I think that we should admit such talk if we're already in the business of quantifying over things in a tense-neutral way.

Given that we are interested in saying things about how 1898 was when objectively present, we have a problem. 1898 is not objectively present – this can hardly have escaped your notice. Crucially, when 1898 was present, Marie Curie was not dead, though Marie Curie is in fact dead. One might like to reply that Marie Curie is dead in 2014 but alive in 1898, but this can be read in a problematic way. It is no help to quantify over the events of 2014 and use that as a basis for saying Marie Curie is dead in 2014, since Marie Curie is not *located* in the year 2014. If we could appeal to Marie Curie quantifying only over current events, then the motivation for quantifying over past events (and so defending the Growing-Block view) would be undermined, as quantifying only over present events (i.e. being a Presentist) would suffice.

To avoid Braddon-Mitchell's challenge we can't merely claim Curie isn't alive in 2014, we must say Curie is not alive at *any* of the times at which she is located. We must be perspicuous in allowing that she *was* alive in 1898 but resisting the claim that she is alive, or indeed IS alive, in 1898. This point applies generally to any processes and/or activities in the past. As Forrest says:

[6] Of course, there is work to be done to explain why the Growing-Block view has these features, as I argue in my (2014) argues.
[7] It should be stressed that there is only one 1898, which we are considering as represented in two ways.

> "So we may truthfully say that Gondwanaland *is* in the past, but not that dinosaurs *inhabit* Gondwanaland in the past. We have to say that dinosaurs *inhabited* Gondwanaland."[8]

The past tense, for Forrest, and for the author, involves doing two things, rather than one. The past tense doesn't merely restrict the scope of our quantifications to times earlier than the present, but also asks us to consider those times as if they were succeeded by nothing, e.g. considering 1898 as represented on timeline **α**. Just as one can consider a merely possible world as if it were actual, one can consider a past time as if it were present (by considering it as though succeeded by nothing). When we say that Marie Curie discover*ed* Radium, we don't need to claim she IS alive anywhere in our ontology, merely that there IS a time such that, considered as succeeded by nothing, Marie Curie is discovering Radium at it. The past tense plays a key role on this view, then, in allowing us to talk about what Marie Curie did when present, committing us to the existence of Marie Curie (for surely it is she to whom we refer), but not committing ourselves to any discovering taking place, nor any behaviour, nor any consciousness in events wholly located in the past.

Section 3: Why should presentness be extrinsic?

Why should we think that activity, and consciousness in particular, is extrinsic? It is beyond the scope of this paper to give a full argument for this, but here, at least, is some motivatation for that view. The difference between the past and present is that present events are ongoing and past events have finished. It seems natural to switch between talk of an event's being past and that event having finished; they sound like they are similar claims. Similarly, consider describing an event being present, an ongoing event, an event taking place or an event happening. In our ordinary way of talking, we might use any of these descriptions to advert to the presentness of an event. If we took the relationship between a finished event and a past one seriously, as a feature to be reflected in our metaphysics, rather than as a *façon de parler*, then the idea of a past devoid of activity seems more natural. For an event to be ongoing, on such a view, there must be some activity or process taking place, and if an event is not ongoing there is no activity or process taking place. Conversely, activities, to be present, must be ongoing, and when they are past they are not ongoing.

That gets us as far as a relationship between activity and presentness, though. Why think that presentness is extrinsic? There are two thoughts I would like to offer here. Firstly, thinking that there is some intrinsic property of presentness that an event has and then lacks is liable to mystify

[8] Forrest (2004), p.359 (italics original)

matters rather than clarify them. We would need to say more about this intrinsic property, and explain why it coincided so neatly with the edge of the block. Trenton Merricks, for example, worries that whatever it is that picks out the present on the Growing-Block view might not be at the edge of the block and I have argued elsewhere that the growth from the edge of the block is something that needs to be explained.[9] If we think of activity as being extrinsic, we avoid the need to explain the mysterious intrinsic property, and explain why it is so systematically related to the edge of the block. This is because, on the Growing-Block view, the future is pure potential – it doesn't exist – whereas the past is fixed actuality – not only does it exist, but we're stuck with it. Ongoing (i.e. present) events seem naturally placed between the potential of the future, and the fixed actuality of the past; ongoing events are precisely those that have some fixed actuality (i.e. they have begun) and some potentiality (i.e. they are unfinished).[10] A connection between activity taking place and the extrinsic properties of the latest bit of the block, located as it is between the open future and the fixed actuality of the past, is not such a surprising outcome as Braddon-Mitchell would have us believe.

The details need filling out on such a story, and no doubt the devil will be in them. We have, however, some motivation for the view that the past is devoid of activity. An event, or process, in order to involve activity, must be ongoing, but a finished event or process is not ongoing, and past events or processes are succeeded by other events or processes incompatible with their continuation.

Why should Curie's consciousness, or lack thereof, get into this picture of activities and processes being extrinsic? Without needing to commit myself to whether consciousness is a process or activity, rather than a state or something else, I think it is very plausible that consciousness is dependent on all sorts of processes as sustaining causes. Unless oxygen is supplied to the brain, for example, consciousness in general, and speculation about one's objective presentness in particular, are not possible. Consciousness, then, requires processes to occur, and on this view the processes only occur when present.

This still leaves us with the 'problem' that most of the things in our ontology lack behaviour. I have said, in §**2**, how we can talk about behaviour that has taken place but not about the behaviour that there IS in the ontology that the Growing-Block commits us to. I, you may object, have said

[9] Merricks (2006); my (2014)
[10] This line of thought is suggested by comments in Aristotle *Physics III.2*, though that is not to say the view I'm defending is Aristotle's.

what Curie *was* like, but not what she IS like, and that is the mystery that makes the Growing-Block unpalatable.

I have, however, said everything I need to about what Marie Curie IS like. She is dead, inert, inactive, causally spent and, to use Mellor's phrase, has 'a retired or emeritus status'.[11] Additionally, she IS such that were a particular time in 1898 to be succeeded by nothing she would be all the things we know her to have been then. And so, *mutatis mutandis*, for the other times at which she IS located. If you press me with further questions about Marie Curie, what am I to tell you? It is not as though I can tell you what it would be like to encounter a person who is in the past, since if you are in a position to do any encountering, you must be in the present.

Section 4: Avoiding semantic and metaphysical gymnastics.

In making a distinction between the past-as-it-was-when-present, and the past-as-it-actually-is, I may appear to have opened the Growing-Block theorist up to a further objection. Chris Heathwood (2005) argues that one of the advantages the Growing-Block view over its competitor, Presentism, is that the Growing-Block has the resources to make sentences about the past true, whereas the Presentist does not. Claims about past activities, on the Growing-Block view, according to Heathwood, are "made true only thanks to some of the semantic and metaphysical gymnastics Presentists train for but Growing Block Theorists thought they could avoid."[12]

I agree with Heathwood that the Growing-Block's ability to make past-tensed sentences true is one of the main motivations for preferring the view to Presentism. I disagree that the Growing-Block view needs any semantic or metaphysical gymnastics that it hasn't trained for. Heathwood asks us to compare four sentences.

(**CC**) Caesar was conscious when he crossed the Rubicon.
(**SA**) Socrates was alive when he was sentenced to death.

(**CW**) Caesar was wet when he crossed the Rubicon.
(**SF**) Socrates was fat when he was sentenced to death.[13]

Heathwood is considering Forrest's defence against Braddon-Mitchell's objection by denying there are activities in the past. Heathwood says of these sentences "Either the first two sentences are

[11] D.H. Mellor (1981), p.23. He was not using the phrase in quite this context.

[12] Heathwood (2005) pp.250-1
[13] Heathwood (2005), p.250. Boldface added.

false, or if they can be shown to be true, they are not made true in the way the final two are made true."[14] And so, Heathwood claims, we need semantic and metaphysical gymnastics insofar as we are unable to make all four sentences true in the same way.

You will note, however, that **CC** and **SA** are not false on the analysis I have given. If the past tense involved considering an event as if succeeded by nothing, then **CC** and **SA** come out as true. Consider modified versions of those sentences:

(**CC***) Caesar is conscious when he crosses the Rubicon.

(**SA***) Socrates is alive when he is sentenced to death.

(**CW***) Caesar is wet when he crosses the Rubicon.

(**SF***) Socrates is fat when he is sentenced to death.

where the uses of 'is' are all tense-neutral, and we are invited to consider past events as they actually are (i.e. as completed events), rather than as if they were succeeded by nothing. For these modified sentences, the first two come out false, and, assuming for the sake of argument the second two involve no appeal to activities, the second two come out as true. Their truth and falsity is decided by the same method. We consider the ontology that (unrestrictedly) exists, we restrict our attention only in that we consider the event of Caesar's Rubicon crossing or Socrates' sentencing, and we say what those events make true.

As I stressed above, such tense-neutral sentences are not interesting outside technical discussions in the philosophy of time, where, as Bourne points out, they allow the debate between various views of time to be substantive.[15] I don't believe that the truth-value of sentences in that technical vocabulary can be claimed to pump such strong intuitions that any appeal to common-sense compels us to reject the theory. Common-sense is presumably much more relevant to the truth-values of sentences in a less technical register. It is not such tense-neutral sentences we should worry about, but past-tensed sentences, such as we ordinarily use for talking about the past.

Heathwood's argument focuses on the loss of a key advantage for the Growing-Block view. Both the defender of the Growing-Block view and the Presentist usually want to refer to the past. The Growing-Block view is at an advantage, its defenders argue,[16] because they believe the past exists to be referred to, and the Presentist does not believe this. The difference between the Presentist and the defender of the Growing-Block view is that the Presentist claims there *were* times which

[14] Heathwood (2005), p.250
[15] Bourne (2006), p.10
[16] E.g. Tooley (1997),

were once present, but cannot actually refer to them, whereas on the Growing-Block view we can both claim there were times which were once present, and refer to those very times. The Presentist looks to be unable to use the past to make our ordinary sentences about the past true, or if true, not really about the past. To show that Heathwood's argument fails, I shall show that the Growing-Block view maintains this advantage over Presentism.

For a Presentist to make **CC** true they need to give some account of what 'Caesar' refers to, since their ontology contains no Roman emperors. Various Presentists have offered various solutions to this problem, but many have run into difficulty.[17] The Growing-Block avoids such difficulties, since it contains at least one Roman emperor called Caesar that occupies an important relation to the Rubicon. To make **CC** or **CW** true, we need to consider that bit of ontology as it would have been when objectively present. Under those conditions would Caesar be conscious? Yes. Would Caesar be wet? Yes. When the Growing-Block was younger did those conditions obtain? Yes. Then **CC** and **CW** are true, and made true by the same method! The only gymnastics involved are such as are involved in appealing to a change in what exists over time (e.g. to a difference between the world as represented by timeline **α**, and a world as represented by timeline **β**). The Presentist is equally committed to a change in what exists over time, so the Growing-Block view and Presentism are on a par with respect to that particular commitment. The gymnastics that the Growing Block avoids are having to appeal to surrogates for past ontology like haecceities,[18] ersatz times,[19] or present ontology,[20] appealing to brute facts,[21] or claiming that sentences like **CC** and **CW** are not really true.[22] The Growing-Block view, then, has a straightforward account of the truth of sentences about the past, and, despite Heathwood's misgivings, retains its advantage over Presentism. This means that the costs of adopting the past as involving finished activities, and thinking of the past tense as directing us to consider how things were when succeeded by nothing, do not involve sacrificing one of the Growing-Block view's key advantages.

Concluding remarks

The Growing-Block view has had its reputation suffer a good deal because of the problems it has had explaining what the status of past people is. I have, in this paper, diagnosed those problems,

[17] Baron (2013)
[18] Cf. Keller (2004)
[19] Cf. Bourne (2006)
[20] Cf. Bigelow (1996)
[21] Kierland and Monton (2007)
[22] Cf. Markosan (2004)

and explained how I think they should be dealt with. I have argued that, since we are already are prepared to deal in the language of the ontology room we should reject Correia and Rosenkranz' resistance to tense-neutral quantification and accept that, on the Growing-Block view most of our ontology is devoid of consciousness. I have offered some motivation for thinking that the solution I offer is a natural one, by considering the relation between finished events and past events, and I have shown that this solution does not risk the ability of Growing-Block view to make sentences about the past true, and true in a consistent way.

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