Times, Locations, and the Epistemic Objection

Abstract

Very roughly, the epistemic objection to the growing block theory (GBT) says that according to that theory there are many past times at which persons falsely believe they are present. Since there is nothing subjectively distinguishable about a situation in which one truly believes one is present, from a situation in which one falsely believes one is present, the GBT is a theory on which we cannot know that we are present. In their articulation and defence of the GBT, Correia and Rosenkranz (C&R) argue that the epistemic objection fails miserably. In what follows I try to unpack their response to the objection, and locate it amongst others. Along the way I flag some confusions I have about how we are to think about the GBT as articulated by C&R.

1. Introduction

Let’s begin with a quick characterisation of some of the working components of C&R’s version of the GBT. I’ll then outline the epistemic objection, and note some of the ways that defenders of the GBT have responded to that objection. I then consider C&R’s response.

In “Nothing to Come” C&R present and defend a version of the GBT which is roughly Broadian in nature. Their view endorses two key principles, where E! is existence, T is a predicate for times, and G and H are standard temporal operators, it will always be the case that, and it has always been the case that, respectively.

 (P1): E!*x*→GE!*x*

 (P2): T*x*→ At *x*, H¬E!*x*

Jointly, these capture the idea that once things come into existence, they remain in existence thereafter (P1) and that every time is new at itself, so that any resident of time freshly added to the block is located at the time of its addition (P2).

Although C&R take quantification to be unrestricted, on their view the quantifiers range over the domain of things that exist at some time. In turn, it is t2—that is, we are at t2— just in case t2 is new (it is the latest addition to being). So if t1 is earlier than t2, then the domain of things over which the quantifiers range, at t1, will be strictly contained in the domain of things over which they range at t2. That is because by t2 more things will have been added to the domain as new things come into existence, but nothing will have ceased to exist.

So let’s turn to the epistemic objection to the GBT.

2. The Epistemic Objection

Exactly how to spell out the epistemic objection is a matter of dispute; indeed it’s unclear whether there is a single objection, rather than a class of objections.[[1]](#footnote-2) Deasy and Tallant (forthcoming) articulate five different versions of the objection. I’ll outline two of these, and then focus on the second. The first is what Deasy and Tallant call the *Evidence Argument.*

1. For any subject S, S knows that *p* only if S has good evidence that *p.*
2. For any subject S, S knows that S is present only if S has good evidence that S is present (from (1)).
3. Given the GBT we have good evidence that we are present only if we have good evidence that we are located at the time than which there is no later.
4. Given the GBT we could not have good evidence that we are located at the time than which there is no later.

Therefore

1. Given the GBT, we do not know that we are present (from (2), (3) and (4)).

The weight of the argument resets on (4). Why think (4) is true? Well, according to the GBT each of us who tokens the belief that we are present when they are present, also tokens that belief when we are past. But the situation in which we truly believe that we are present is subjectively indistinguishable from the situation in which we falsely believe we are present. Hence in each situation we have the same evidence. Hence we don’t have good evidence that we are located in the present, since we have the same evidence when we are located in the past.

Russell (2015), Cameron (2015) and Deasy and Tallant (forthcoming) all agree that this version of the argument fails. It does so, they contend, because we ought not think that *x* and *y* have the same evidence just in case they are in subjectively indistinguishable situations. To accept that account of evidence would lead us into scepticism. For it would follow that each of us has the same evidence that we have hands, as does a brain in a vat that has subjectively indistinguishable experiences from us. If that were so, then by a similar argument to the Evidence Argument, none of us would know that we have hands. So we should think that our evidence outstrips the ways things seem to us, and includes some other ways the world is. One proposal is that someone’s having evidence that they are present requires that they are present.[[2]](#footnote-3) Regardless, if our evidence outstrips the ways things seem to us, then our evidence when we are present, is different from our evidence when are not. Hence we have no reason to accept (4).

C&R don’t endorse this response to the Evidence Argument. Instead, they appear to target the claim that each of us who tokens the belief that we are present when we are present, also tokens that belief when we are past. This is important, since if their response succeeds, it also succeeds against what Deasy and Tallant take to be a more successful version of the epistemic argument. That version is as follows.

Suppose that in order to know that *p*, one’s belief that *p* must be *safe*, in the sense that one could not easily have believed *p* falsely. Then a subject S knows that *p* only if there are no close possible situations in which S falsely believes that *p.* Then the *Safety Argument,* a version of which was originally proposed by Russell (2015), runs is as follows where P is the proposition *that this time is the present time*.

1. If one knows that P, then necessarily, if anyone closely believes P, then P.
2. We closely believe that P.
3. Given GBT, if someone closely believes P, it will always be the case that someone closely believes P.
4. Given GBT, it won’t always be the case that P.
5. Given the GBT it won’t always be the case that if anyone closely believes P then P.
6. If necessarily *φ* then always *φ*.

Therefore

1. Given the GBT we don’t know that P.

If x believes that P, and y has a close belief to that of x’s, then this is, roughly, to say that x and y have a belief with the same content—they believe the same proposition—and their basis for this belief is sufficiently similar, where a belief’s basis extends beyond the mental states of the believer. So if Freddie believes that P, and Annie believes that P, if Freddie and Annie’s environments are sufficiently different, or the laws of nature or metaphysical laws are different, then they are unlikely to count as closely believing that P. The idea, then, is that all past persons closely believe that P.

One way to resist this argument is to deny (3). If it’s not the case that if S believes P, then it will always be the case that S believes P, then it’s not the case that if S closely believes P, then it will always he case that S closely believes P. C&R deny that if S believes P in the present, then S believes P in the past. Hence they deny that if S believes P, then it will always be the case that S believes P. If their response succeeds, then they have a reply to both versions of the epistemic argument.

To make things clearer, let’s consider S, who is located at *t*\*, believing that P. We all agree that when *t\** is present, S has the property of believing that P. The question is whether, when *t*\* is past, S has the property of believing that P. C&R say not. On what grounds might one deny that past S has the property of believing that P?

One possibility is that the property of believing that P is intrinsic to *t\** (setting aside issues about how beliefs get to have the contents they do), and that *t\**’s intrinsic properties change when *t\** goes from being present, to being past. Call the intrinsic properties that (fully) ground S’s instantiating the property of believing that P, *the B properties*. When *t\** is present, S instantiates the B properties; but when *t*\* is past some (or all) of the B properties fail to be instantiated.[[3]](#footnote-4) Hence past S does not instantiate the property of believing that P.

This is not a view that C&R endorse. Instead, they follow Broad in holding the following:

 “When an event, which was present, becomes past, it does not change or lose any of the relations which it had before; it simply acquires in addition new relations which it could not have before, because the terms to which it now has these relations were then simply non-entities. […] Nothing has happened to the present by becoming past except that fresh slices of existence have been added to the total history of the world. (Broad 1923: 66, cf. also 82)”

A second possibility is that the property of believing that P is really a disguised relation. So what it is for S to believe that P, is for S to bear the believes-that-P-at relation to the present time. Hence when S is not present, S does not believe that P.

One way to think of that view is to suppose that for S to believe that P is for S to have some intrinsic properties—the B properties—and for those properties to bear a relation to the present time. Then the complete grounds for S’s having the property of believing that P, is the instantiation of the B properties plus those properties bearing the is-instantiated-at relation to the present time.[[4]](#footnote-5) Alternatively, but in a similar vein, perhaps S’s instantiating the property of believing that P is for S to believe that P in a particular manner: in a *presently manner*. One way to think of that view is to suppose that what grounds S’s instantiating the property of believing that P, is for S to instantiate the B properties in a particular temporal manner: namely, presently. The when S instantiates the B properties *pastly*, S fails to instantiate the property of believing that P.

Something like of these latter two views seem to be what Forrest (2004) and Forbes (2016) have in mind when they say that the past is dead because nothing is *happening* there. If what it takes for things to be happening is for there to be certain intrinsic properties that either bear a relation to the present time, or that are instantiated presently, nothing is happening in the past. Certainly, no one is, in the past, believing that P.

Notably however, while C&R reject the claim that in the past, S believes that P, they claim to do so in a way that does not commit them to *any* of the views just articulated. What, then, is their response? To be frank, I am not certain. So in what follows I will attempt to tease out a number of strands to their response.

3. C&R’s Response

C&R argue that proponents of the epistemic objection must make at least one of two presumptions: A or B. Presumption A is that our earlier-selves are still believing themselves to be present. Presumption B is that individual judgements of, or beliefs in, tensed propositions, change their alethic status whenever those propositions do. C&R reject both presumptions.

To reject Presumption A is to reject the claim that if S believes that P when S is present, then S believes that P when S is past. This is the presumption that we have already met, and whose falsity allows the GB theorist to reject premise (3) of the Safety Argument and premise (4) of the Evidence Argument.

To reject Presumption B, by contrast, involves arguing that *if* S believes that P when S is past, then, when properly assessed, that belief is in fact true. This allows the GB theorist to reject (4) and (5) of the Safety Argument and (4) of the Evidence Argument.

C&R argue, in effect, that we ought assess beliefs in such a way that were it the case that in the past, S believes that P, that belief would in fact be true and so the epistemic argument would fail. But in fact, it’s not the case that in the past, S believes that P, so the question of whether that belief is true or not does not arise.

In what follows I will start by considering C&Rs discussion of Presumption B, since what they say there is instructive in trying to understand their views about Presumption A.

3.1 Presumption B

To secure the conclusion that S’s belief that P, in the past, is false, we seem to need to suppose that a belief in a tensed proposition changes its alethic status whenever that proposition changes its alethic status. As C&R note, though, we usually evaluate beliefs as true or false according to whether their propositional contents are true or false at the time these beliefs are held, not according to whether those contents are true or false at other times.

Imagine Marta who, at t1, is sitting in a long-distance train about to depart from Barcelona central station. Marta at that moment believes the present-tensed proposition <The train is still in Barcelona>, and her belief is true. Now consider some later time, t3, at which the train has left Barcelona. At t3 it’s not true that <The train is still in Barcelona>. So if Marta had that belief at t3, then she would believe falsely. But we don’t conclude, from this, that Marta’s belief, *had at t1*, has gone from being true, to being false. Were we to conclude that Marta believes falsely, at t1, we would be assessing the proposition she believes against the way things are somewhere other than where she is doing the believing. The same is true, argue C&R, when we assess S’s belief that P as false.

Here is the idea. S is located at *t\*.* When *t\** is present, the belief is true. What it is for *t\** to be present, is for it to be *t\**. So *at t\**, the belief is true. It is only at, say, *t+*,(a later time) that we are tempted to say that the belief is false. But that is because we are assessing the belief at *t+* when we should be assessing it at *t\**. That’s just like assessing Marta’s belief <The train is still in Barcelona> at t3 instead of at t1, when she formed the belief.

The core claim, then, is that we ought be assessing S’s belief at the time the belief is tokened: namely at *t\**. When we do that, we see that the belief is true.

The natural response to this thought is that the locution ‘*at t’* is ambiguous given the GBT. On the one hand, we might use ‘at *t*’ to pick out *t*, when *t* is present. After all, when *t* comes into existence, the time is, as it were, *t*. This is how C&R do, in fact, use ‘at *t*’. On the other hand, we might use ‘at *t*’ to simply pick out a particular location in space-time, or, if you prefer, a particular hyperplane in the four-dimensional structure. In this sense ‘a *t*’ functions just like ‘at Sydney’: it allows us to pick out some place and see what is the case at that place. Let’s call the hyperplane of reality that is composed of everything that is present when *t* is present, the *t*-plane. Then we can ask ourselves how things are at the *t*-plane at *t* (i.e. when *t* is present) and we can ask ourselves how things are at the *t*-plane at some time other than *t*. Let us use the phrase ‘at the *t*-plane’ to pick out the *t*-plane location, at any time.

Then we can ask whether we ought be assessing S’s belief that P, at *t\**, or whether we ought be assessing S’s belief that P, at the *t\**-plane.

Consider a case that is somewhat different from Marta’s. Freddie is sitting on the balcony in Bundanoon. Freddie tokens the belief <it is raining>. It is raining in Bundanoon. Annie is sitting in Sydney. It is not raining in Sydney. Should Annie conclude that Freddie’s belief is false because the propositional content he expresses is not true at her location? Presumably not: she should assess that proposition at Freddie’s location.

Notice that there is no mention of times or *t*-planes in this story. We simply notice that Annie ought assess Freddie’s belief based on *what is going on* *at his location* *rather than at hers* and that todo so does not require that Annie be located where Freddie is.

Suppose we try and take that advice and put it into practice regarding S’s believing that P. Suppose S\* is evaluating S’s belief that P. S\* ought be evaluating that belief based on what is going on at S’s location, not at her own. But does that require that S\* evaluate S’s belief that P, at *t*\*, or that S\* evaluate S’s belief that P, at the *t\**-plane? In either case, in some good sense S\* is evaluating S’s belief based on how things are at S’s location and not at her own. But S\*’s conclusion about the truth of S’s belief that P will be different depending on how she thinks about what it is to evaluate S’s belief at S’s location.

It’s clear that C&R conceive of evaluating S’s belief that P at S’s location, as evaluating S’s belief that P at *t\**. Return to consider (P2). (P2) captures the idea that every time is new at itself. Since for C&R something is new iff it is the most recent addition to being, and since *x* is present iff *x* is new, (P2) entails that every time is present at itself.

In light of this, Meyer (2019) interprets C&R as rejecting the existence of a metaphysically special present in favour of a purely indexical present. This, he concludes, is how their version of the GBT eliminates the challenge of the epistemic objection. For if there is only an indexical present, then if S believes that P, then it is always the case that S believes truly. To put it another way, if there is really only an indexical present, then even when we assess S’s belief that P at the *t\**-plane, at a time other than *t\**, that belief is still true. For S’s belief that P is just the belief that S is located at the *t\**-plane, and that belief, is, of course true.

This interpretation of C&R’s response to the epistemic objection is, however, puzzling. After all, if presentness is merely indexical, it must surely be that if S believes that P, it is always the case that S believes that P. But this is something C&R deny.

So what is going on here? I take it that for C&R there is a metaphysically special present: that time that is new. But, as Meyer notes, every time is present at itself. How so? Well, what it is for it to be some time, *t,* just is for *t* to be present. So at *t*, *t* is present. So whenever we are thinking about what is true at *t*, we are thinking about what is true when *t* is present. Thus, while every time is, trivially, present at itself, it is not the case that every *t*-plane is present at itself. Since C&R talk about times, not *t*-planes, this is not a distinction they draw.

But, it seems to me, this is a distinction we want to make: we want to be able to talk about *t*-planes. We want to talk about how things are at a location when that location is present, but also how they are at that location when that location is past. Indeed, I think we want to be able to talk about both of these ways that things can be, at a location, even if we think that in fact, however things are at a location when that location is present, is exactly how they are at that location when the location is past. This is a point to which I return in the following section. For now, I will say just this: if one allows that we *can* talk about *t*-planes, then it is not clear that C&R’s response to Presumption B succeeds.

Suppose S\* is located at the *t+-*plane, and that it is *t+.*. If S’s belief that P must be evaluated at *t\**, then in some good sense S\* cannot evaluate S’s belief: for at *t\*, t+* does not exist and neither does S\*, and at *t+* when S\* does exist it is no longer *t\**. So to demand this is, in a way, to demand that S\* be located at the same place as S: namely *t\*.* But we don’t demand that Annie be located in Bundanoon in order to assess Freddie’s belief: we just demand that she see how things are at Freddie’s location, a location that is other than her own. This seems perfectly analogous to S\* assessing S’s belief that P, by staying at her own location and looking at the *t\**-plane to see how things are with S. In that event, S\* will assess S’s belief that P as false.

C&R want to say that this is an illegitimate way to assess S’s belief that P: but, as yet, I fail to see why we should take this to be so. The issues, here, are ones that resurface when we consider Presumption A, so it is to C&R’s discussion of that presumption that I now turn.

3.2 Presumption A

C&R argue that we ought reject Presumption A. That is, we ought reject the claim that if, in the present, S believes that P, then, in the past, S believes that P.

But C&R do not appear to reject this claim because they think that what it is for S to believe that P is for S to bear the believes-that-P-at relation to the present time, or to believe-that-P in a presently manner. For C&R hold that there is no reason to endorse the dead past hypothesis (the hypothesis that nothing is happening in the past).

Instead, their reason for rejecting the claim that if S believes that P, then always, S believes that P, seems to stem from intuitive features of tense. They note that it is intuitive to judge that “Thatcher is dead” is true, but not to judge that “Thatcher is crushing unions” is true. What we should instead judge is that “Thatcher *was* crushing unions” is true. By similar reasoning we ought deny that S *has* the property of believing that P, and instead maintain that S *had* the property of believing that P. Hence we ought deny that if S has the property of believing that P, it is always the case that S has that property.

This proposal is perfectly general. For all properties φ, and individuals ϕ, we will say that ϕ instantiates φ just in case it is presently the case that ϕ instantiates φ, and we will say that ϕ instantiated φ just in case there is an earlier time, and at that time (i.e. when that time is present) ϕ instantiates φ.

Notably, this appears to be inconsistent with a natural way of spelling out the dead past hypothesis. Suppose one thinks that for S to believe that P is for S to bear the believes-that-P-at relation to the present time. Suppose, further, one thinks that this proposal is best thought of as one in which S instantiates certain intrinsic properties—the B properties—and what grounds S’s believing that P is that these B properties bear the instantiated-at relation to the present. One can endorse something like this proposal consistent with thinking that most, or all, ordinary predicates pick out disguised relations of this kind. But one nevertheless needs to think that there are non-relational properties (like the B-properties, which are a partial ground for S’s believing that P) and that if S instantiates these properties, then, always, S instantiates these properties. It is just that at past times, these properties fail to bear the relevant relation to the present, which grounds its being the case that some ordinary predicate picks out any property. But C&R’s proposal seems to rule out its being the case that there are *any* such properties. For they will say that it is false that some past object instantiates the B-properties.

Given C&R’s proposal, it seems, there is nothing we can say about the past, qua past. All we can say is how things *were*, where how things were is not a function of how they are, at some earlier *t*-plane, but of how things are, when that *t*-plane is present.

To coin a technical term, that seems weird. As long as we think that there are *t*-planes, then we ought have a philosophical language that can describe them. Perhaps it’s true that in ordinary tensed English we will assert that “Thatcher *is* dead” and that “Thatcher *was* crushing unions”. But that hardly gives us reason to conclude that the best philosophical language in one in which we cannot express any claims about how *t*-planes *are*.

Surely we cannot solve the epistemic objection by stipulating that we cannot *express* the claim that S, at the *t*-plane, believes that P, unless our metaphysical model is one on which there is no way that S at the *t*-plane is. But it’s very hard to see why that would be, given the GBT. After all, it seems perfectly reasonable to ask what properties S instantiates when the *t*-plane is past, as well as to ask what properties S instantiates when the *t*-plane is present, and to wonder if these are the same. In fact, I think it madness to think that S instantiates different properties at the *t*-plane, depending on what time it is: but I think the question is at least expressible. I don’t see how we can even ask that question if, at all times after *t*, we only talk about the way S *was*.

This brings us full circle to our discussion of (P2), and the extent to which every time is present at itself. I noted previously that ‘at *t*’ can plausibly be thought to be ambiguous, such that on only one disambiguation is it true to say that every time is present at itself. In order to capture this ambiguity one needs to introduce the idea that we can talk about locations within the block when those locations are not present; hence the introduction of *t*-planes.

If one resists this idea, *then* one might say that one can only talk about how things *are*, at the present time. Indeed, C&R will no doubt say that to do otherwise is to fail to take tense sufficiently seriously. And here is where my imagination runs out. Tense is a feature of language. It can be a mere feature of language, or it can map onto something metaphysically important. In the GBT, it maps onto something metaphysically important. Nevertheless, the GBT is a view on which there *are* past things: it’s not merely the case that there *were* some things. That would be presentism. Moreover, in some perfectly good sense on this view past things are no different from present things, aside from the fact that they are no longer new. Now, perhaps ordinary language is best regimented in such a way that we use only the past tense to talk about past things. But that does not help me understand how it is that past things aren’t some way or other. I grant that the way past things are, might be such as to make it false that S believes that P, when S is past. I do not, however, see how simply adopting a language on which all we can say about S, is that S believed that P, can be a way to respond to the epistemic objection in the absence of these being some metaphysical story about why a language with only that expressive power, is the correct one. And I see no such story.

References

Bourne, C. (2002). When am I? A tense time for some tense theorists? *Australasian Journal of Philosophy, 80,* 359–371.

Braddon-Mitchell, D. (2004). How do we know it is now now? *Analysis, 64,* 199–203.

Braddon-Mitchell, D. (2013). Fighting the zombie of the growing salami. *Oxford Studies in Metaphysics, 8,* 351–361.

Broad, C. D. (1923). *Scientific thought*. Abingdon: Routledge.

Deasy, D. (2015). The moving spotlight theory. *Philosophical Studies*, 172, 2073–2089.

Deasy, D. and J Tallant (forthcoming). “Hazardous Conditions Persist” *Erkenntnis* 1-24

Forbes, G. (2016). The growing block’s past problems. *Philosophical Studies, 173,* 699–709.

Forrest, P. (2004). The real but dead past: A reply to Braddon-Mitchell. *Analysis, 64,* 199–203.

Merricks, T. (2006). Good-bye growing block. *Oxford Studies in Metaphysics*, 2, 103–110.

Meyer, U. (2019). ‘Review of Nothing to Come: A Defence of the Growing Block Theory of Time” *Notre Dame Philosophical Reviews.* https://ndpr.nd.edu/news/nothing-to-come-a-defence-of-the-growing-block-theory-of-time/

Miller, K. (2019). The cresting wave: A new moving spotlight theory. *Canadian Journal of Philosophy* 49, 94–122

Russell, J. (2015). Temporary safety hazards. *Nous, 51,* 152–174.

Tallant, J. (2007). There have been, are (now), and will be lots of times like the present in the hybrid view of time. *Analysis, 67,* 83–86.

1. Defenders of version of this objection include Bourne (2002), Merricks (2006) and Braddon-Mitchell (2004, 2013). [↑](#footnote-ref-2)
2. Alternatively, one could frame this in terms of justification, and say that the relevant parties have the same evidence, but that nevertheless one is justified and the other is not, because having justification requires being appropriately connected to, in this case, being present. The former is a kind of externalism about evidence, and the latter, an externalism about justification. Nothing much hangs on this difference for these purposes. [↑](#footnote-ref-3)
3. For a view of this kind see Miller (2019). [↑](#footnote-ref-4)
4. See Deasy (2015) for a view of this kind. [↑](#footnote-ref-5)