

On ‘Experiencing time’: a response to Simon Prosser

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Abstract: In his recent book ‘Experiencing time’ (OUP), Simon Prosser discusses a wide variety of topics relating to temporal experience, in a way that is accessible both to those steeped in the philosophy of mind, and to those more familiar with the philosophy of time. He forcefully argues for the conclusion that the B-theorist of time can account for the temporal appearances. In this article, I offer a chapter by chapter response.

Introduction

Simon Prosser’s ‘Experiencing time’ is a must read for anyone interested in temporal experience. It covers a wide range of topics in both the philosophy of time and the philosophy of mind, and it does so with meticulous care. Though both of these areas are equally relevant when it comes to thinking about temporal experience, this book is unusual in offering a treatment that does justice to both. What follows is a chapter by chapter response, with a particular focus on chapter 2.

Chapter 1

Chapter 1 sets the scene by introducing the mainstream metaphysical debate about time that forms the backdrop of the book. On the one hand, there is the B-theory (or tenseless theory) of time, according to which ‘the apparently dynamic quality of change, the special status of the present, and even the passage of time are all illusions’ (preface). This is the theory that the book argues for. It says that time is closely analogous to space. The world ‘is a four-dimensional space-time block, lacking any of the apparent dynamic features of time’ (preface). The rival A-theory (or tensed theory) of time says that ‘time passes and change is dynamic’ (1).¹ There are many variants of the A-theory, including the moving spotlight theory, the growing block theory, and presentism. But all of these are united by the claim that time passes.

Chapter 2

Chapter 2 begins the main argument of the book, the conclusion of which is that B-theorists can account for the mismatch between the temporal appearances and temporal reality. The first thing on the agenda, then, is to outline what the temporal appearances are, and how they are in conflict with the B-theory. Seven relevant items are described, having to do with memory, A-properties, the present, dynamic change, motion through time, the open future,

¹ All unmarked page references are to (Prosser 2016).

and the direction of time. In all these ways, experience seems to tell us that time passes. Since on the B-theory, time doesn't pass, there is a mismatch to be accounted for.

However, this picture grows rather more complex as the book progresses. Already the main message of the second chapter is 'that it is impossible to experience the passage of time, and that experience does not even represent A-theoretic features (not even falsely)' (54). There is also a second message, which is that 'the A-theory is not merely false, but unintelligible' (54). Let's call these claims '1' and '2', respectively and let's focus on 1 for now.

On the face of it, 1 is in some tension with the project of the book. If we can't experience anything A-theoretic, especially not the passing of time, then how can there be a troubling mismatch between the B-theoretic nature of the world and the A-theoretic temporal appearances, especially our experience of the passing of time?

However, Prosser is well aware of the possibility of a misunderstanding here. The answer, as I understand it, is that there are (at least) two notions of 'passage experience' in play. The first is a broad one: there are aspects of our mental lives – of 'what it is like to be us, in a very broad sense of "what it is like"' (26) – such that we take ourselves to be aware of the passing of time. This broad sense may not coincide with what is ordinarily thought of as perceptual experience, or the phenomenal character thereof. It's the broad sense that is relevant for the project of the book. But what's relevant for chapter 2 is a narrower sense of 'passage experience'. This, I take it, has to do with perceptual experience, or the phenomenal character thereof. Relatedly, it's to do with what experience *represents*. Claim 1 says that experience does not and cannot represent any A-theoretic feature, including the passing of time.

One question one might have here is whether or not it's important for the book's project that passage experience in the broad sense be 'more' than just our being disposed to think of time in A-theoretic ways. If it's important, then one might worry about this point, because it's not clear that the seven items outlined *are* about 'more' than that, nor indeed what this 'more' could consist in if not perceiving time as passing (which 1 says is impossible).

Prosser offers an analogy with causation here. Suppose, with Hume, that we don't have sensory impressions of causal connections, just of causes and then of effects. The idea seems to be that this Humean view doesn't preclude one from going along with empirical results showing that in some sense we experience causation. In many cases, subjects seem to non-inferentially judge that causation has occurred based on perceptual experience. Why not say that in some sense they experience causation, even if there is no sensory impression, or (in our modern terms) no *quale* of causation?

The analogy, I take it, is that even if there is no (and can't be any) *quale* of time's passing, so that there is no experience of passage in the narrow sense, we still experience passage in the broad sense. And this still amounts to more than inferring that time is A-theoretic or thinking in A-theoretic ways. It amounts to non-inferentially judging, on the basis of perceiving things other than passage, that time passes.

I confess I'm not completely sure how to understand this. One reason is that in the case of time at least, this stance makes it a little mysterious what the *quale* of time's passing was

supposed to have been, and hence what the significance of claim 1 (that there can be no *quale* of time's passing) is. Perhaps it will be replied that this is somehow the point, and that this is where claim 2 comes in; I return to claim 2 below. In any case, as mentioned, it's not clear that all of the seven items outlined at the start of chapter 2 *do* amount to more than reasons for which we infer A-theoretic claims or are disposed to think A-theoretically. For example, the second item ('A-properties') is that 'when we think of past and future events we think of them as occupying a part of reality that is objectively past or future. If we take our uses of words like 'past and 'future' at face value, it seems to us that they are used in discussing and thinking about real A-properties' (24).

Before presenting the main arguments of chapter 2, Prosser discusses a number of related arguments from the literature, one of which I'll comment on briefly. Laurie Paul's argument (Paul 2010) is, as Prosser says, intended to undermine the A-theoretic appeal to experience. The core idea is that illusory motion phenomena (such as the colour phi phenomenon) support the claim that static inputs can produce dynamic experience, so that a B-theoretic reality can be experienced as a dynamic A-theoretic one.

First, Prosser considers an objection he finds in Christoph Hoerl's work (Hoerl 2014a), which is that 'it is not clear that the experience of phi motion (or of veridical motion) really represents the world in a way that is in conflict with the B-theory'; 'both the short-lived stimuli and the experienced longer-lived persisting object are compatible with the B-theory' (29). In response, he says that experienced motion really does seem dynamic in a way that is incompatible with the B-theory, but that arguments may come to an end here.

Now, if this was Hoerl's entire objection, then one might also point out that Paul was simply assuming for the purposes of her discussion that there is an A-theoretic phenomenology to be explained. So one shouldn't expect her to give us reasons to accept the claim that there is such a phenomenology. But I take at least part of Hoerl's point to be that there is a prior question about what A-theoretic phenomenology *would be*, and that a proposal like Paul's leaves (or makes) that somewhat mysterious. Hoerl calls this the intelligibility problem.

Note also that *this* objection doesn't seem far removed from Prosser's own claims 1 and 2 that there couldn't be a *quale* of passage and that the notion of passage is even unintelligible. After all, we are here talking about the narrow sense of 'passage experience'. So one might wonder how to square 1 and 2 with Prosser's description of his own phenomenology in this response to Hoerl.

Prosser then raises an objection of his own, but one which he answers on Paul's behalf. The objection targets a reading of Paul on which she is claiming that 'a genuinely 'static' (i.e. non-dynamic) stimulus produces a dynamic experience' (30). The objection is that an A-theorist can insist that the 'static' stimuli in question, while being static in the sense of unchanging, are in fact dynamic in the sense of being A-theoretic in character (as everything is, according to the A-theorist).

The answer he provides on Paul's behalf is that a weaker reading was intended, namely one that 'emphasizes the extent to which our experiences are *constructed*' (30). We learn from the phi phenomenon that an experience of motion can be constructed by motionless stimuli. Since the constructed experience involves (A-theoretic) dynamicity, the dynamicity must

have been constructed along with the motion. Why? Because there is no motion (dynamic or otherwise) in the stimuli.

But this reply doesn't quite work, and (something like) the original objection still stands. Why think the dynamicity was constructed along with the motion? Why not think that the output is dynamic because the input is (in this case as in all others)? In other words, why should it matter that there is no motion (dynamic or otherwise) in the stimuli? If motionless stimuli are dynamic (in the A-theoretic sense), as the A-theorist thinks, it's hardly surprising that the illusory experience of motion they give rise to is one of dynamic illusory motion. We've been given no good reason to think any constructive mechanism is involved in that, and therefore we've been given no good reason to think any such mechanism can do the trick.

Let's now turn to the main two arguments of chapter 2. The detector argument is intended to show that 'experience fails to favour the A-theory over the B-theory' (33). The multidetector argument is intended to show that 'the passage of time cannot be experienced at all' (33). Let's take these in turn.

The detector argument establishes its conclusion by aiming for a stronger one and failing. Its original aim is to establish the claim that 'the mind cannot be a passage detector' (this is claim 1), because no physical system can be, and the mind at the very least enjoys a relevantly close relation to physical systems.

Let's focus on the claim that no physical system can be a passage detector. Prosser concedes, to begin with, that if time does in fact pass then clocks measure how much time has passed. However, since in this context 'passage' means A-theoretic passage (I return to this point below), that gets us nowhere; it would be question-begging to assume that clocks are passage detectors. They are if and only if time passes, i.e. the B-theory is false. Instead what Prosser asks us to imagine is a device that can detect whether or not time is passing, in the A-theoretic sense, i.e. whether or not the A-theory is true. That is, the question under consideration is whether there can be a device that lights up if and only if the A-theory is true.

I certainly share Prosser's skepticism about the possibility of such a device, which after all would be a peculiar thing, given that this is a metaphysical debate (are there devices that light up if and only if Platonism about numbers is true?). Nonetheless, I worry about the argument against this possibility.

The key claim is that the A-theory and the B-theory both posit the same series of physical events, 'where a 'physical event' is an event described using only the vocabulary of physics' (34). This is described as completely uncontroversial and something with which '[p]hysicists agree' (35).

Here is a slightly flat-footed way of stating the worry. Later on in the chapter, we will learn that the A-theory is unintelligible (claim 2). Put simply, if that's so, how can one confidently claim that the A-theory posits the same series of physical events as the B-theory?

Here are some more specific ways of expressing the worry. Suppose there is a moving spotlight, and suppose this means there is a second time-series, because the spotlight's arriving at an event is an event in a second time-series. Is that second series of events *physical* or not (and hence, does this version of the A-theory posit a different set of physical events or not)? Or suppose presentism is true, and suppose we go along (for the sake of argument) with an understanding of presentism according to which a presentist posits only a subset of physical events of those posited by the eternalist (Wüthrich 2011). In what sense does this version of the A-theory posit the same series of physical events as the B-theory? Or again, consider versions of the A-theory that posit tensed facts, like the fact that Thursday is objectively present and other days were and will be. Are those *physical* facts or not, according to that theory? The corresponding B-theoretic claim would be that there are only tenseless facts involving B-relations like simultaneity and succession. Do these theories agree on all the physical facts?

Given that I don't think there can be a passage detector in the sense at issue, this point is not crucial. But it does suggest that the argument may fail sooner than chapter 2 allows. Supposedly, what hinders the argument is that the A-theorist can, in the end, insist that there would be no experience at all without temporal passage. The result, we are told, is a standoff. But effectively the same standoff may loom much earlier. The A-theorist may think that without temporal passage, physical reality would be very different from how it actually is, because nothing would *happen*. By the A-theorist's lights, temporal passage may be no optional add-on to the physical, any more than it's an optional add-on to the mental. If so, then emphasizing the close connection between the mental and the physical is dialectically irrelevant.

Of course, whether either choice point really does involve a standoff, in the sense that both sides are begging the question and neither has better arguments than the other, is up for discussion. Prosser briefly mentions Bradford Skow's point (Skow 2011) that equal consistency (with experience) is not the same as equal quality of explanation (of experience). It's surprising that he does not spend more time on this point. He says the reason he doesn't dwell long on it is that later, in the multidetector argument, he will argue that no version of the A-theory can explain temporal experience at all (41). But the detector argument is already supposed to establish that experience doesn't favour the A-theory. In order to show that, one does have to compare the quality of A- and B-theoretic explanations of experience.

One final comment on the detector argument. In a very interesting discussion of figures like Hermann Weyl and Arthur Eddington, Prosser outlines a view according to which consciousness is not a part of the physical world, but plays a role analogous to the moving spotlight. On this view, successive events along one's world line become 'present' to consciousness.

He discusses many good objections to this Weylian view. However, one of them (middle of p. 37) is a close cousin of McTaggart's argument against the coherence of the A-series (McTaggart's 'paradox'), which Prosser dismisses as question-begging in chapter 1.

Prosser's objection targets a Weyl-inspired diagram depicting consciousness at one instant with an arrow representing its eventual 'movement' to another. The objection says that the diagram in fact depicts a world in which, 'at all times other than the present, there was and

will be no consciousness' (37). The thought is that the arrow, or what the arrow represents, by itself doesn't make it the case that consciousness will 'move on' and has 'moved on'. And it makes no difference that the diagram would be different at a different time, because each diagram is incorrect in the same way.

This is strongly reminiscent of McTaggart's argument, especially in some of its contemporary guises, such as the one defended by Kit Fine (Fine 2006). Admittedly, Prosser only explicitly dismisses McTaggart's original, but the implication is that all versions fail: '[d]espite its influence, I shall suggest that the argument is question-begging. I am not the only one to think so; in fact there seems to be a growing consensus about the failure of the argument' (14).

What's striking is that even though Prosser considers only the original version of McTaggart's argument, which is less closely related to his objection against the Weylian view than contemporary ones, his response to McTaggart lends itself particularly well to being adopted by the Weylian. The response goes something like this: there is no contradiction in the A-series, because on the A-theory, propositions change their truth-value. Suppose t_1 is the present. '[A]ccording to any A-theorist, after t_1 the nature of reality changes as time passes; the world becomes the world at t_2 [...] [T]he McTaggart objection simply fails to take the A-theorist's position, according to which the whole of reality changes, seriously. It begs the question by taking it for granted that propositions do not change their truth-values, and thus implicitly assumes that reality does not change' (16). That is, according to this response to McTaggart, there is no contradiction in the A-series because t_1 is present, t_2 is future and will be present, etc., but neither is both present and future.

But if that is what makes it the case that on the A-theory, the whole of reality changes, then how can the Weylian be in trouble with making consciousness move on? His arrow clearly represents that t_2 (rather than t_1) will be present to consciousness. If McTaggart can be answered in that fashion, then why won't this do?

Let's now turn to the multidetector argument. Recall that its conclusion is that 'the passage of time cannot be experienced at all' (33), i.e. that the mind cannot be a passage detector. As I understand it, along the way it also aims to show that there cannot be a passage detector. So it aims to establish what the detector argument originally aimed and failed to establish. Thus, this is the central argument for claim 1 ('that it is impossible to experience the passage of time, and that experience does not even represent A-theoretic features (not even falsely)' (54)).

As mentioned, I find it plausible that there cannot be a passage detector in the sense of the light that goes off if and only if the A-theory is true. From this it follows that the mind can't be such a thing. However, I'm a bit less confident of the claim that it's impossible to experience passage (as mentioned I don't quite know what we're meaning by 'experience of passage' in this chapter). More to the point, I'm not quite persuaded by the multidetector argument.

The basic idea is that a passage detector, be it mental or physical, needs to have (what I'll call) a differential response to passage. It, rather than some other indicator, has to be causally connected to and counterfactually dependent on passage. It, rather than something else, has

to be caused by passage to ‘go off’, and it, rather than something else, has to be such that if there were no passage, it would not ‘go off’. These are features of perception.² But such conditions can’t be met by passage. So there can be no passage detector, mental or otherwise.

There are two sources of unease, both of which are probably related to objections discussed in the chapter. First, what about the view that experiencing passage is necessary for experiencing anything? If there are necessary features of experience, then is it reasonable to demand that these satisfy the differential response constraint?

Prosser considers the following related Kantian (or Kant-inspired) objection. Why not say that experiencing passage is necessary for experiencing anything, and vice versa (i.e. one can’t experience passage without an experience of something else, such as a change of some kind), so that the experience of passage supervenes on other phenomenology?

As I understand it, Prosser’s reply is very concessive. He says that in chapter 6 he will in fact argue that there is some phenomenology (call it ‘P’) that supervenes on other phenomenology, and that people describe this as the experience of time’s passing, but that this description is problematic. But why is it problematic?

Here’s why: ‘When described in terms of the neutral ‘P’, it should be apparent that there could be nothing in such phenomenology that connects it with the passage of time. Indeed, the fact that P supervenes on other elements of experience suggests that whatever content it has can only be derived from the content of those other elements of experience’ (49).

That wasn’t apparent to me. We’ve chosen to describe the phenomenology in question neutrally, as ‘P’, but that doesn’t seem significant. Why can’t an experience of passage supervene on other phenomenology? Moreover, if P has nothing to do with an experience of time as passing, then why is chapter 6 devoted to it, and why is it there described as one of the ways in which the illusion of passage comes about (186)?

One might object that I’m mis-interpreting the phrase ‘connects it with the passage of time’. Maybe the idea isn’t that P has nothing to do with passage, but merely, again, that it can’t have causal or counterfactual connections to passage (even if time passes). But on the view under consideration, it’s not clear that a differential response is required at all. Moreover, the contention does seem to be that P has nothing to do with passage: ‘The problem with this [Kantian] line of argument is that it shows only that there is something unusual about the phenomenology in question; it does not show that the phenomenology has anything to do with passage’ (49).

² In some places the claim is instead that these are features of *veridical* perception. I found the switch between these variants a little confusing. However, as far as I can see, the overall claim is that these are necessary conditions for perceptual representation full stop, and that therefore it’s impossible to perceive passage, whether veridically or non-veridically (claim 1). Moreover, the arguments in section 2.8, which are specifically supposed to rule out the possibility of non-veridical perception of passage, have much in common with the multidetector argument. So that’s what I’ll focus on.

The second source of unease may be related to an objection by Geoffrey Lee considered on p. 50. When looking for an element of experience that has a differential response to A-theoretic features of the world, why must that feature be 'passage' taken as a mysterious whole? Why not look for an element of experience that is differentially linked to, say, an event's presentness or pastness? (Again, it's not quite clear why some of the seven items outlined at the start of the chapter, such as 'A-properties', 'memory', and 'the present', are not relevant here.) Moreover, if the argument would proceed in a parallel fashion, i.e. if the idea is that no element of experience can be differentially connected to something as metaphysical as an A-property, why is the B-theorist better off? How do we perceive B-relations, and why aren't they too, too metaphysical to elicit differential responses?

This brings us to claim 2 and the question of relevant asymmetries between the A- and the B-theory. Recall that claim 2, the second message of chapter 2, is that 'the A-theory is not merely false, but unintelligible' (54). In fact, since we can't experience the passing of time, we can't even speak about it. Nor do we know what we are talking about when we use the words 'the passing of time' or other A-theoretic vocabulary, and this is because all these expressions fail to denote anything.

All this is thought to be strongly supported by 1 and the case for 1. Of course in general, being imperceptible doesn't entail being unintelligible. But in the case of passage, the entailment holds, because '[w]e have no other way of explaining what it means for time to pass' (57), other than by appeal to experience. So the peculiar situation is that passage turns out not to have anything to do with experiences we had taken to be experiences of passage, and which were our only means of knowing what we meant by 'passage'.

Here too I'm sympathetic to the conclusion (claim 2) but worried about the argument. (As will become clear, I also take a different view of the dialectical significance of the conclusion.) Perhaps this partly traces back to the difficulty with understanding claim 1 and its significance. But I don't think it straightforwardly follows, even if we assume 1, that 'passage' doesn't refer and passage talk is unintelligible. One obvious reason to hesitate here is provided by the book itself: some people think about the passing of time, and this book is a case in point.

Prosser considers this kind of objection: 'Have, you, the reader not been thinking about the passage of time while reading this chapter, pondering whether it is the kind of thing of which we can have experience? Obviously there is *some* sense in which we talk and think about the passage of time. We use the words 'the passage of time' in meaningful communication, we have thoughts that we express using those words, and we have experiences that we describe using those words. But I have in mind another kind of question. For example, does the definite description 'the passage of time' denote anything? Is an attitude report such as 'Bloggs believes that passage is a real feature of time' meaningful when given a *de re* reading with respect to 'passage'?' (55)

But I'm not sure that answers the objection. How is this a different kind of question?

Note that the difficulty is not that 'we' in general, i.e. human beings who use languages with temporal expressions, are able to communicate using terms like 'passage'. It's that *prima facie*, those who think about the metaphysics of time, including Prosser and his readers, are

apparently able to do so. The difference matters, because as is made explicit on p. 33, the book is *not about* what ordinary people mean by ‘passage’. It’s about a metaphysical term of art. B-theorists don’t disagree with ordinary people about whether time passes. Instead, in the context of the A versus B debate, ‘we reserve the use of ‘passage’ for the A-theoretic notion’ (33). Apparently ‘we’ who do that, namely those thinking about the metaphysics of time, seem to use ‘passage’ and other A-theoretic vocabulary in meaningful ways.

I think this objection is by no means fatal – as mentioned, I’m sympathetic to 2. But it highlights a peculiar (perhaps even paradoxical) feature of 2, in the light of which 1 doesn’t by itself seem a good enough reason to accept 2. Chapter 1 manages to introduce the A- and the B-theory, by means of metaphysical distinctions, and in spite of our (supposed) inability to experience passage. There is at least the appearance of the possibility of thinking about this metaphysical debate, whether or not 1 is true.

Having said that, if 1 is true (or even if there is some merit to the arguments of chapter 2) this should certainly give participants of the debate much food for thought.

But in my view, Prosser underestimates 2’s dialectical significance. If these intelligibility problems obtain, they implicate the B-theory too, especially the B-theory as understood in this book. The reason is that as understood here (and as often understood), the B-theory is a positive metaphysical view that makes essential use of the expression ‘temporal passage’ (understood A-theoretically) just as much as does the A-theory. It says that necessarily, time doesn’t pass, and all times are metaphysically on a par and equally real. These are the *same notions* the A-theorist uses to state his theory. Intelligibility problems with these notions can’t leave the B-theory untouched. They throw into doubt the very metaphysical debate that forms the backdrop of the book. Occasionally in later chapters, the B-theory is weakened to ‘necessarily, it’s not true that time passes’ (165). But the full implication of 2 is that ‘time passes’ has no clear meaning, so that neither the claim that time passes nor the claim that time doesn’t pass makes any sense. We can mention the term ‘passage’ but not use it intelligibly. Use of the term ‘passage’ is, after all, unhelpful.

Chapter 3

Chapter 3 deals, amongst other things, with tensed beliefs and attitudes towards the past, present and future. Prosser discusses date and token reflexive approaches to tensed language and then says that neither can solve Prior’s thank goodness problem (what do we thank goodness for when thanking goodness that something is past?). On the token reflexive theory, a t utterance of ‘the dental visit is over’ is true if and only if the visit occurs earlier than the token utterance. On the date theory, a t utterance of ‘the dental visit over’ is true if and only if the visit occurs before t . Why thank goodness for states of affairs such as these?

One prominent answer to Prior holds that what one thanks goodness for is what one believes to be the case, namely that the dental visit is over (e.g. Dyke & MacLaurin 2002). It seemed as though that view was not discussed.

Prosser’s own solution is a person-reflexive approach to tensed language, which comes in two varieties. On the endurantist version, a t utterance by S of ‘ e is over’ is true if and only if

e occurs earlier than *S*, relative to *t*. (We're taking endurantism to be the view that things persist by being 'wholly present' at more than one time.) On the stage theory version, a *t* utterance by *S* of '*e* is over' is true if and only if *e* occurs earlier than *S*, *S*'s temporal part at *t* or *t*-stage. (On the stage theory, persons are temporal parts or stages; statements like 'this person has existed for a while' are made true by the person's standing in certain relations to persons existing at other times.) For example, take the stage theory version of the person-reflexive approach. A *t* utterance by *S* of 'the dental visit is over' is true if and only if the visit occurs earlier than *S*'s *t*-stage. This is the truth condition of the utterance, and also the propositions expressed by it. Each person-stage thinks a different thought reflecting a different relation to the visit, making different attitudes towards it rational (for different person-stages).

Prosser focuses on the stage theory but suggests that in principle both versions of the person-reflexive approach are viable and can be developed along the lines of the following sections.

Actually it's not quite clear how the endurantist version would be developed. On the endurantist version, what one thanks goodness for is that a three-place relation of pastness obtains between the dental visit and oneself *relative to t*. But that's presumably no more thankworthy than that a two-place relation of pastness (or earlier-than) obtains between the dental visit and *t*. Certainly the former state of affairs is no less 'eternal' than the latter.

Prosser then introduces the central notion of Subject-Environment Functional Relations (SEFs). An SEF relation is 'a functional relation between the subject and the environment that is relevant to the possibilities of causal interaction between them' (74). One motivation for positing these concerns the possibility of computer-generated environments that includes functional duplicates of persons. The content of the experiences of such beings, Prosser argues, can't be spatial (though could one perhaps say they are quasi-spatial in that they concern virtual space?). So we need the notion of an SEF to talk about the relations that are common to the contents of their experiences and ours (e.g. 'nearness').

I was a little unsure what to make of SEF relations in the temporal case. Are they B- or A-characteristics? Given that the truth conditions of thoughts about the past and future are said to involve SEF relations, one would expect them to be B-theoretic characteristics (since this is a B-theoretic project). On the other hand, '[e]vents [...] stand in different SEF relations to a given subject depending on how far into the future they are' (75). So they stand in different SEF relations to a given subject depending on which A-property they (currently) have.

Perhaps the intended answer is that they are neither. They are the functional relations that make it the case that the subject can interact with the environment in certain ways. But what kinds of things can SEF relations relate? And if SEF relations can (amongst other things) relate subjects to events, then are these relations tenseless or not?

Prosser goes on to argue that we need to recognize the phenomenon of first-person redundancy in perception and thought (which is said to correspond to that of unarticulated constituents in language). This is presumably closely related to the need for SEF relations. For example, whether something is near to one depends on its distance to oneself, which is a

spatial relation. But one need not pay attention to one's own location in order to experience it as near. One only needs to be sensitive to a single parameter, namely how near the object is.

In the temporal case, Prosser then combines this with the stage theory version of the person-reflexive approach: what makes the t thought 'e is over' true is that e occurs earlier than S_t , but what *seems* to make it true is that the event is past i.e. has an A-property. (Perhaps, given the parallel with unarticulated constituents, the idea is also that tensed thoughts are *about* A-properties, but *concern* B-relations.)

The difficulty is that, as the example of nearness demonstrates, the phenomenon of first-person redundancy would not be specific to the temporal case. So how can it explain away differences between spatial and temporal experience (as we're assuming the B-theorist needs to)? The answer is that we're far more constrained in our movements through time than we are in our movements through space. As a result, one might wonder whether this, rather than SEF relations and first-person redundancy, is not doing most of the work in explaining why we tend to think there are A-properties (but not properties such as nearness).

Chapter 4

However, SEF relations are put to essential use in Chapter 4. The topic here is the experience of events and processes as happening at a certain rate, and as having a certain duration. Prosser defends a version of intentionalism about rate and duration experience that is friendly to 'versions of materialism that see consciousness as supervening on brain processes and as being intimately related to the functional role of conscious experience' (95). The chapter is (thus) full of interesting material, and I skip it mainly due to time constraints.

Chapter 5

Chapter 5 takes up questions about whether experience is temporally extended. Part of the aim of the chapter is to defend a 'dynamic snapshot' view, on which temporal experience has an instantaneous, rather than a temporally extended content. The key idea here is that just because the content of temporal experience is instantaneous, it need not be a static, motion-free snapshot. Experience need not be a 'rapid sequence of still images' (Dainton 2010) as on the 'cinematic' view. Instead it can represent an instant as containing change, by representing instantaneous velocity, whether or not the latter is *metaphysically* dependent on what goes on at other times.

The rival view posits a temporally extended content or specious present. Prosser argues that the specious present view is undermined by empirical results that suggest that one can experience motion without experiencing any object as being at different places at different times. The chapter is full of in depth discussions of arguments for and against the specious present view and its two versions (the retentional and the extensional model). But the overall message is this: most likely, none of these models of time perception genuinely differ from any of the others so this debate is misguided.

The thought is that for all anyone has shown, none of the approaches make any different empirical predictions from any of the others, nor can they be introspectively confirmed or disconfirmed. And whilst that may not be enough for theoretical equivalence in general, it strongly suggests such equivalence in this special case: 'It may sound verificationist to insist that there can be no fact of the matter just because it is impossible to determine such a fact through any form of observation. But when it comes to the putative qualia, whose essential nature is to determine the subjective character of experience, this verification seems uniquely justified.' (155)

Prosser recommends that we not posit qualia, and thereby avoid the mistake that drives the debate. Instead we should stick with the notion of 'what it is like to be the subject' (158). What he has in mind is that we should give up on the notion of qualia in Dennett's sense, for whom qualia are '*ineffable, intrinsic, private, and directly or immediately apprehensible*' (155).

But it didn't become entirely clear why we should think that the debate is driven specifically by a commitment to qualia in that sense, as opposed to just to the notion of what it's like. What drives the debate, and what Prosser denies, seems to be the conviction that it makes sense to ask '*when* is it like that for the subject?' (158). Perhaps a commitment to qualia in Dennett's sense forces one to ask that question. But from this it doesn't follow that anyone who asks that question is driven by a commitment to qualia in Dennett's sense.

The view Prosser settles on allows one to say that at certain times, a subject has definitely not experienced some things and has definitely experienced others. What it doesn't allow one to say is anything about what a subject is experiencing at a specific time. All we can say is that over the course of a day, the subject experiences a certain series of events.

One thing that might occur to one here is whether there might not be some affinities between this and one of the views Prosser criticizes, namely the extensional model (at least in some of its versions). Prima facie, it's not that big a step from 'we can't say what the subject is experiencing at an instant, only what they experience over a longer interval' to 'what the subject is experiencing at an instant is determined by what the subject experiences over a longer interval'.

A final point concerning this equivalence thesis is that as Prosser acknowledges, the chapter contains many references to empirical considerations such as temporal illusions of various kinds. These are used to argue against some models of time perception and for others. However, 'this does not take the form of a difference in empirical predictions between the theories' (157), and so this can't supply the empirical difference between the models that would make them genuinely distinct from one another.

But even if these aren't *predictions* per se, if empirical considerations speak in favour of some models and against others, then how can the debate not be partly empirical (as opposed to 'purely philosophical' (157))?

Chapter 6

Recall that chapter 2 left open the possibility of some phenomenology that supervenes on other phenomenology and that is often described as an experience of time as passing. Chapter 6 argues that the phenomenology in question is that of experiencing change as dynamic. However, this experience does not represent change as being dynamic. That would, in accordance with chapter 2's claim 1, be impossible, since dynamicity (we're assuming) is an A-theoretic notion. Rather, it represents that things persist by enduring, by being 'wholly present' at the times they exist. But it makes people think time passes, and is often mistakenly described as an experience of passage. (Thus, it's an experience of something other than passage in the narrow sense of 'experience', giving rise to an experience of passage in the broad sense of 'experience'.)

The main question I have about this relates back to chapter 2. How can this phenomenology be 'dynamic', when it doesn't represent the world as being A-theoretic, and we're assuming dynamicity is an A-theoretic notion? Prosser says that strictly speaking, experience does not represent change as dynamic, or time as passing. It's sometimes convenient to talk of 'dynamic experience' or 'passage experience', but by that we mean only 'elements of experience that are often taken to be experiences of dynamic features of the world' (165).

To my mind, that suggests that we don't experience time as passing, though perhaps we tend to think in A-theoretic ways (and perhaps even tend to think that we experience time as passing). Yet Prosser dismisses such views in chapter 2. 'I do not think that such views are plausible, in part because they leave it too mysterious why anyone should ever have been an A-theorist in the first place' (59). But such (veridicalist) views can still explain why we tend to think in A-theoretic ways.³

Moreover, Prosser's own view involves a similar challenge. Prosser's question to veridicalists is 'If all there is to motion experience is the experience of at-at motion, which is compatible with the B-theory, then why should this be mistaken for a wholly incompatible metaphysical feature of the world' (185)? Yet on Prosser's view, experience doesn't (and can't) represent anything A-theoretic. Motion experience is experience of endurantist persistence and motion, which (as Prosser seems to acknowledge) is compatible with the B-theory. So why should this be mistaken for a wholly incompatible metaphysical feature of the world?

In fact, arguably the challenge is even starker on the proposed view. On the proposed view, A-theoretic terms don't so much as refer. How can all these A-theorists have missed the fact that they were not saying anything?

Moving on, Chapter 6 argues that the content of 'dynamic' phenomenology is necessarily false. Actually, it assumes that the content is false (and thus dynamic experience is illusory).⁴ Then, it argues for the claim that it's necessary, as follows.

³ See e.g. (Hoerl 2014b), (Deng forthcoming). I take the term 'veridicalism' from (Baron et al. 2015).

⁴ One might wonder on what basis one can assume this, even in the context of a B-theoretic project, if dynamic experience doesn't represent anything incompatible with the B-theory. But the assumption is justified later on, when it has emerged that the content is necessary:

- (P1) Let P be any contingent perceivable proposition.
- (P2) There is a possible world, w , in which P is true and in which a subject, S , veridically perceives that P .
- (P3) In some such world, w , in addition to perceiving that P , the subject S experiences the world as dynamic. Let D be any element of phenomenal character that makes w seem dynamic. Then D is a different phenomenal character from that of the element of S 's experience that represents that P .
- (P4) Within a single subject at a single time no two phenomenologically distinct elements of experience have the same representational content.
- (P5) Since, in w , S perceives that P and there is an additional element to S 's experience, with phenomenal character D , the latter element of experience does not represent that P . (From P2, P3, and P4).
- (P6) If the dynamic element of experience does not represent that P in world w then it does not represent that P in the actual world.
- (C) The content of the dynamic element of experience is not contingent. Hence, given that it is not veridical, it is necessarily false. (From P1, P5, and P6).

Perhaps I'm missing something, but I'm still worried that P3 begs the question.⁵ In a footnote, Prosser emphasizes that dynamic phenomenology is distinct from other phenomenology. But can we, in the context of this argument, be confident that its phenomenal character is distinct from the phenomenal character of any contingent (perceivable) proposition? What justifies the claim that D is a different phenomenal character from that of the element of S 's experience that represents that P ? In defense of P3, Prosser says that '[a]ll that is required for P3 [...] is that there is a possible being whose experience contains the relevant dynamic element, D , who also perceives that P , such that the dynamic phenomenal character D is different from the phenomenal character associated with P ' (169).

But whether that's possible for *all* contingent (perceivable) propositions P seems to be precisely the question.

However, suppose we've shown that the content of 'dynamic' phenomenology is a necessary falsehood. The hypothesis is that this necessary falsehood is that things persist by enduring. Do we perceive things as enduring?

One reason for caution is that most of Prosser's arguments for this claim seem to equate endurance with persistence. Early in the discussion (173), he acknowledges that on perdurantism too, a single object persists, i.e. exists at more than one time, and retains its numerical identity through changes - it's just that the object has temporal parts. Yet many of

'Admittedly the argument does, in principle, leave open the possibility that dynamic phenomenology represents a necessary truth that we somehow mistake for a feature of time' (171). Prosser goes on to say that he can't see a plausible way to make this work. I confess I'm not sure what the problem is, nor why the feature in question has to be a feature that we 'somehow mistake for a feature of time'.

⁵ I argued for this in response to an earlier version of the argument in (Deng 2013).

the arguments emphasize that we perceive things as retaining numerical identity through changes: ‘It is this notion of a single entity passing ‘through’ a change that captures at least a very important element of the experiences of temporal passage’ (175); ‘Many cognitive scientists accept the idea that there are ‘object files’ for perceived objects, which store successive states of an object that is perceptually tracked over time. Where the same file persists, the same predicative information is retained in the file [...] when an object is experienced as changing, the predicates ‘is not F’ and ‘was F’ are contained in the same file, and are thus applied to the very same object’ (181); ‘The organization of the subject’s cognitive system into persisting object files may thus be taken as a reason to accept that the subject’s perceptual system represents an object as numerically identical from one moment to the next’ (182); ‘One’s perceptual system is ‘lazy’ – it no longer ‘bothers’ to separate the still images as separate identities and instead puts them together as one single moving object, with a single object file’ (183).

The only consideration that supports the claim that we perceive things as enduring is this: ‘[w]hen we experience change we do not – I suggest – have experience as of an F temporal part of an object succeeded by a $non-F$ temporal of that object, with it somehow understood that both parts belong to the same composite whole. This does not correctly capture the phenomenology or the way we naturally think, prior to philosophical reflection’ (173).

Recall that the overall message of chapter 6 is that in representing things as enduring, we represent a necessary falsehood. This is partly supported via claim 1 (from chapter 2) that experience can’t represent anything A-theoretic. The idea is that the content of experience has to be B-theoretic, and when that’s combined with endurantism, an experiential contradiction results. Not that the B-theory plus endurantism make up an inconsistent package; but the ways out of the inconsistency are contrary to how change is represented in experience.

So does our experience of ‘dynamic’ change seem contradictory? According to footnote 21, the answer is as follows. ‘The way things seem, phenomenologically, has a contradictory content. But things do not seem contradictory in the sense that we are disposed to judge the world to be contradictory. This is probably because we do not automatically assume the B-theory in making our judgments about what is contradictory’ (178). In other words, the contradiction is *felt*, but we don’t infer from it that there is a contradiction in the world.

However, the main text suggests a different stance. We think of *and experience* the world in something like the way the presentist thinks of it, which involves no contradiction (‘[t]he apparently conflicting truths FO at t_1 and $\neg FO$ at t_2 do not contradict because there is no reality containing both’ (178)). Not only does the world not seem contradictory, but neither does our experience: ‘This might help explain why it does not seem to us that our experiences of change are contradictory – even though they really are’ (178). So there is no felt contradiction after all.

Yet the project is to show why change seems ‘dynamic’, in a sense of ‘seems’ that helps explain why there are A-theorists. So we should be aware of the dynamicity. There has to be a felt contradiction. On the view proposed, there should be ‘a sense of one state of affairs

constantly giving way to a new and incompatible state of affairs' (186). (I confess I'm not sure I have that sense.)

Chapter 7

The final chapter 7 naturally draws heavily on earlier chapters, so I'll be brief. It discusses two further phenomena, our sense of movement through time and our sense of the openness of the future. On this latter issue, Prosser defends compatibilism, the view that 'even if the world is deterministic we can nevertheless make free choices' (193). Moreover, he argues that compatibilist freedom involves real openness of the future, albeit of a 'subjective' kind.

What is subjective openness? It's not an illusion of openness; it's real openness. But it's not objective, because objective openness is the conjunction of indeterministic laws and non-eternalism (eternalism says that all times exist). And the reason we tend to think the future is objectively open is that we fail to make this distinction. That's where the illusion comes in: the illusion is that the future is objectively, rather than (just) subjectively, open.

One question about this is why a compatibilist should include indeterminism as part of the definition of 'objective openness'. Of course one can make a sharp distinction between openness and freedom. Prosser does say that it's a mistake to think free will requires an open future. But at the same time, he portrays openness and freedom as intimately linked: 'If we construe the subject as a spatiotemporally extended entity, and we regard all internal complexity as part of the subject, not as part of its environment, then the subject, construed in that way, really does have options. *Its* future really is open, because the facts about the world external to the subject do not uniquely determine the future, including the subject's future actions' (199).

The main question, though, is what to make of the explanation. The explanandum is that we tend to think the future is objectively open. The explanans is that we, those who are under an illusion of objective openness, fail to make the distinction between subjective and objective openness.

But what does it take to make that distinction? Prosser makes it here. And a reader may well accept and employ it. But presumably, neither will thereby cease having the sense of an objectively open future. If they previously tended to think of the future as open and the past as fixed, they presumably still do so.

Most likely the intended reply is that there was no suggestion of the illusion's being corrigible through an awareness of the distinction. Rather, we are all inevitably in a situation where one easily mistakes subjective for objective openness, seeing one as the other. As agents, we can't help but enjoy subjective openness (indeed that's part of what it takes to *be* an agent). And enjoying subjective openness brings with it the constant danger of mistaking it for objective openness. The explanation points this out, but it doesn't aim to change the fact that we're in this predicament.

But now there's room for worrying about explanatory depth. Here's what we start out with (in the context of this discussion). We feel free. We in fact have compatibilist freedom. And we tend to think the future is objectively open. Why do we think that? Answer: because compatibilist freedom is subjective openness, and non-eternalism+indeterminism is objective openness. We enjoy the former, but think we enjoy the latter.

The idea is that we enjoy the former and *therefore* think we enjoy the latter. But that seems to follow only on the assumption that we tend to think freedom requires objective openness. And if we're assuming that, it's hard to see how we're explaining why we tend to think the future is objectively open.

Conclusion

Perhaps one of the book's most striking theses is that 'the A-theory is not merely false, but unintelligible'. I've suggested that this possibility would have far-ranging consequences for the metaphysical debate that forms the backdrop of the book.

'Experiencing time' is an extremely rich treatment of a number of interesting problems surrounding temporal experience. I've learned and will continue to learn a lot from engaging with it, and I wholeheartedly recommend it to anyone interested in how we experience time.⁶

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