Temporal experience as metaphysically lightweight

Abstract: Experience is the most primitive kind of intentional contact with reality. Metaphysical inquiry is one of the heights of human thought. It wouldn't be surprising if experience was often silent on metaphysics, failing to offer support to one metaphysical disputant over the other, forcing them to fall back on non-experiential considerations. I argue that the dispute between A- and B-theorists about time is a dispute about which experience is silent. B-theorists have typically conceded that the manifest image of time conflicts with how time turns out to be, on their own view of time. They have offered an array of accounts of why that conflict shouldn't worry us. I argue here that these accounts are unconvincing. I also argue that they are unnecessary. Nothing about how time is experienced conflicts with B-theory. An independently plausible method for discovering what properties experience represents – the method of phenomenal contrast – implies that experience does not favor A-theory over B-theory.

Introduction

There is a majority position in the philosophy of time with strong metaphysical and scientific motivations – B-theory. According to B-theory, the only primitive temporal properties are the relations of precedence and simultaneity. Events may truly be said to be past, present or in the future. But, for the B-theorist, all that comes to is their being prior to, simultaneous with, or subsequent to a given reference time – e.g. the time at which a particular event of representing is happening. Likewise, things may be said to be 'flow' from being present to being past – but all that comes to is that something can be present relative to an earlier reference time, but past relative to a later reference time. There are, the B-theorist says, no *primitive* temporal properties of being present, past, future or of flowing. A-theorists by contrast claim that there are.[1]

B-theorists have typically conceded that their position clashes with how time is represented in experience. So they concede that they need to endorse an error-theory about experience.

[1] Thanks, for help with this paper, are due to Keith Allen, David Ingram, Michele Palmira, Léa Salje and two referees for this journal

On the assumption that we are defeasibly justified in assuming the world to be as it seems to us in experience, this creates a challenge for the B-theorist. They need to say what defeats the evidence experience appears to be providing against their theory. Why should we accept what their theory tells us about time, rather than what experience tells us about time? There is a very serious risk of stalemate here. The B-theorist insists that the metaphysical and scientific support for B-theory is non-negotiable, and the apparent experiential support for A-theory must be explained away. The A-theorist insists that the experiential evidence is non-negotiable, and the apparent metaphysical and scientific support for B-theory must be explained away. It's difficult to be sure which of these reactions is superior, since it's difficult to be sure how radically different kinds of evidence (e.g. experiential and scientific) trade off against each other. But what is clear is that neither reaction gives us all of what we want. I want to believe what the physics is telling me (or what the best interpreters of the physics tell me the physics is telling me). I also want to believe what experience is telling me.

Accordingly, I have reason to scrutinize any assumption that I can't have both these things. In this context, a more general point, which has been central in recent debates in the philosophy of perception but surprisingly underutilized in the philosophy of time, becomes inviting: it isn't always obvious what the commitments of experience are. For example, it isn't obvious whether a visual experience could represent some shapes on a page as being *an English sentence*, or a particular tree as being *a Douglas Fir*.[2] And, perhaps similarly, it isn't obvious whether an experience could represent a rain-shower as being *primitively present* (or whether it could represent a rain-shower as having changed from being *primitively present* to being *primitively past*). So, in order to work out whether experience and B-theory really

[2] These examples are from Siegel (2010).

conflict, we need to do some work to find out what the temporal commitments of experience are. This is work which should draw on the tools refined by philosophers of perception. There is at least partial methodological symmetry here. A responsible metaphysician of time should draw on philosophy of physics in working out what metaphysical picture of time (if any) contemporary physics supports. Likewise, a responsible metaphysician of time should draw on philosophy of perception in working out what metaphysical picture of time (if any) experience supports. Just as contemporary physics doesn't come conveniently labelled 'supports B-theory'[3], experience doesn't come conveniently labelled 'supports A-theory'.

The upshot of the last two paragraphs is that being a B-theorist brings with it a choice. A B-theorist can say that their theory about time conflicts with experience, but also say why the conflict isn't worrying. Call this the *error-theory strategy*. Alternatively, a B-theorist can deny that there is any conflict, saying that temporal experiences are metaphysically lightweight in the sense that they fail to weigh in on the metaphysical dispute between A- and B- theorists. Call this the *lightweight strategy*. This paper offers the B-theorist advice on which strategy to take. The first part of the paper focuses on the error-theory strategy, examining respectively L.A. Paul's version (section II) and Brad Skow's (section III). I argue that neither version is palatable. In the second part of the paper, I turn to the lightweight strategy. What the lightweight strategy says about experience is as follows: experience can represent an event, e.g. a rain-shower, as happening *now,* or as happening *in the present*. But experience is silent on whether the event's happening *now*, or *in the present*, simply consists in its happening at the time of the experience itself, or in its having some property that goes beyond that – e.g. being *primitively* present (similar points apply to

[3] If it did, it wouldn't make sense for, e.g., an A-theorist like Zimmerman (2007) to offer sophisticated arguments that physics does *not* support B-theory.

experiences of pastness, or of flow). So one cannot work out, simply by attending to one's experience, that *if* things are the way one's experience represents them as being, then A-theory rather than B-theory is true. Section IV argues that this view about experience should be accepted because it is supported by the *method of phenomenal contrast*, an independently motivated method for discovering what the contents of experience are. Section V bolsters the lightweight strategy by replying to three objections.

The overall methodological proposal of the paper is that the metaphysics of time needs to be enriched by drawing on ideas outside of metaphysics, in particular epistemology and philosophy of perception, more thoroughly than it already is doing. This is most obvious in relation to the second part of the paper: lessons from the philosophy of perception are crucial to articulating why the lightweight strategy is as attractive as it is. But it's also true of the first part of the paper, focusing on error-theory about temporal experience. Consider external world skepticism, targeting my knowledge of the fact that I have hands (along will my knowledge of all other facts about the external world), or moral error-theory, targeting the truth of my belief that bullfighting is wrong (along with the truth of all of my other moral beliefs). Although very different, both constitute a kind of severe epistemic shock, apparently providing reason to think that my epistemic position is very different from what I ordinarily take it to be. Given the severity of these shocks, it becomes natural to ramp up my scrutiny of the premises that appeared to generate them. Perhaps some kind of Moorean response to external world skepticism is possible. Perhaps the moral error-theory was generated by assumptions that the evidential weight of my moral experiences now gives me reason to query, once the conflict has been noted. If it really were true that our temporal experiences were as of the kind of properties that only the A-theorist believes in, then B-theory would constitute a similar kind of epistemic shock. So, it's natural to wonder

whether it might be possible to make broadly similar moves in defending the manifest image of time.

I note, before getting going on evaluating the error-theory and lightweight strategies, that how to formulate the dispute between A- and B- theory is a contentious and difficult question.[4] I won't be doing anything in this paper to resolve that contentiousness. The characterization of the dispute I have offered focused on what *primitive* temporal properties there are (e.g. is there a property of primitive presentness?). Alternative characterizations are available. My approach will be to first argue against the error-theory strategy and for the lightweight strategy for defending B-theory, holding fixed the formulation using the idea of primitiveness. I'll then reply, in section (V), to the objection that, on an alternative way of formulating the dispute on which the key issue is whether there are genuinely monadic properties of presentness, pastness and flow etc, it will turn out easier for experience to offer support for A-theory, and correspondingly harder for a B-theorist to avoid error-theory and pursue the lightweight strategy. If the reader's way of thinking about the A- vs B- theory dispute is not the one initially in focus, and they think that the lightweight strategy is being helped on its way by my way of thinking about that dispute, I invite them to check whether the discussion in section (V) allays their concern.

(II) Error-theory I: L.A. Paul's appeal to the cognitive scientific of experience

This section divides into two subsections. (i) offers a description of Paul's account of what work an error-theorist has to do, and how she thinks cognitive science can help them do it. (ii) offers my critique.

[4] For a good sense of the difficulties, see Deng (2012).

Ultimately, I buy the lightweight strategy. So, I think that temporal experiences do not represent primitive temporal properties. An error-theory is thus unnecessary. What we need to do to assess the success on its own terms of Paul's version of error-theory is to look at this from the perspective of someone who agrees with Paul that temporal experience are *as of* primitive temporal properties. What challenge do they face, and can cognitive science help them with it? If (like me) you're initially sympathetic to the lightweight strategy, then in doing this you're asking a question about what it would be reasonable to believe, if your experiences were very different to what you take them to be.

(i) Paul's error-theory

Paul assumes that simply reflecting on one's experience is enough to establish that those experiences are in conflict with B-theory. Her paper 'Temporal Experience' begins as follows:

> 'I step out of my house into the morning air and feel the cool breeze on my face. I feel the freshness of the cool breeze *now*, and, as the breeze dies down, I notice that time is passing….Reflection on the qualitative character of such experiences suggests that events occurring now have a characteristic property of *nowness*, responsible for a certain special "feel", and that events pass from the future to the present and then into the past' (2010: 333).

She then asks:

> 'Must we grant the existence of a primitive property of nowness and of a relation of passage, or do we merely need to grant that we have experiences *as of* nowness and *as of* passage? (2010: 334)'.

Paul thinks we can get away with merely accepting experiences *as of*. Her general view is that that we do have to start with the 'assumption that the world is as it seems to us phenomenologically'. (2015:175).[5] But it's crucial that this assumption is defeasible. In particular, it can be defeated in the following way:

> '…evidence from attending to the manifest features of the world that is undercut by empirical and theoretical work in the sciences is disqualified as observational evidence'. (2015: 176)

Many people will have a default preference for avoiding error-theories about any significant aspect of the 'manifest image' (the world as it appears to be in experience). However, if a class of experiences really is disqualified as evidence, then resisting a theory simply because the theory implies that those experiences are illusory is a failure to be guided in one's belief formation by the total available evidence, and by nothing else. It looks like a clinging to a segment of the manifest image that has been evidentially neutered. So, if Paul can identify something that disqualifies, or undercuts, the evidence she takes experience to provide against B-theory, the fact that her theory is an error-theory becomes a feature not a bug. The key question is: what plays this disqualifying, or undercutting,

[5] Paul has two papers, (2010) and (2015), that develop the same defence of B-theory, and I quote here from both.

role?[6]

Paul plausibly notes that evidence experiences provides can get disqualified:

> 'if we discover that they are merely by-products of the way human cognitive systems respond to the world and process information to generate experience.' (2015:176)

Here is the main example she cites where it is uncontroversial that this happens. There is a small dot on the left-hand side of a computer screen, the dot disappears, and a new dot is shown on the right-hand side of the screen. This happens again and again in rapid succession. As a result, an illusion as of a single dot moving back and forth across the screen is created (see 2010:348). Other examples of the same illusion of motion phenomenon are when we view a series of slightly different slides quickly, as in films, time-lapse photography, or old-fashioned flip books. In such cases, an experience as of motion is discovered to be merely a by-product of the way human cognitive systems respond to the world and process information. With that discovery in place, the evidence provided by one's experience as of a moving dot on the computer screen gets disqualified. Paul's parallel suggestion is that, with the discovery in place that the cognitive science of temporal experience makes no reference to primitive temporal properties, our experiences as of primitive temporal properties get disqualified as evidence. These experiences are shown to

[6] I shall alternate between talk of experiential evidence being 'undercut' and 'disqualified', as Paul herself does. If some experience provides evidence for *p*, but is then undercut (or disqualified) it no longer provides evidence for *p* (See Pollock 1986). E.g. if I have an experience as of a red wall but then learn that the wall is bathed in a light that would make any surface appear red, my experience as of the wall being red is undercut, I no longer have evidence that the wall is red.

Note that in this case learning about the lighting conditions doesn't provide me with evidence that the wall is *not* red. That is, it is not an *outweighing* or *rebutting* defeater. Similarly, Paul is not arguing that experience ends up providing evidence *against* A-theory. Her aim is just to get to the point where experiential considerations are neutral between A- and B-theory. The B-theorist can then appeal to the standard metaphysical and scientific arguments for B-theory as the positive motivation for her view.

be mere by-products of the way human cognitive systems respond to the world and process information.

It's worth making explicit that, for Paul, the illusion of motion experiences I've mentioned are not merely examples of experiences whose evidential force is undercut once it's discovered that they are illusions. If that had been their only role, Paul could equally have mentioned experiences that misrepresent, e.g., colour properties. For Paul, the illusions of motion are *relevantly similar* to the temporal illusions that, she thinks, a B-theorist should posit:

> 'If the brain can create the illusion of flow in cases of apparent motion, then it can create the illusion of flow in cases of experiences as of passage. In other words, the reductionist can use the experimental facts involving apparent motion, apparent change, and apparent persistence to argue that, even though all she endorses is the existence of a static universe of a series of stages, this is sufficient for the brain to produce the illusion of motion and flow involved in the experience as of change.' (2010: 353)

The key word here is 'flow'. One kind of 'flow' is change in spatial properties – e.g. a dot moving from *here* to *there*. Another kind of 'flow' would be change in primitive temporal properties – this shower is changing from being primitively present to being primitively past ('passage'). For Paul, the B-theorist ('reductionist') simply requires us to believe in the wider occurrence of a fairly specific possibility that we already acknowledge as sometimes occurring. It isn't just that B-theory requires us to believe in the wider occurrence of *illusion*, but we already acknowledge that illusion sometimes occurs. B-theory requires us to believe in the wider occurrence of *illusion of flow*, but we already acknowledge that some experiences (illusions of motion) are *illusions of flow*. It's not just that we know that the brain is capable of creating illusions. We know that it's capable of creating the very same kind of illusion

that Paul thinks the B-theorist should posit.

(ii) Critique of Paul's error-theory

A possible point of criticism of Paul's error-theory is the 'very same kind of illusion' claim I've just highlighted. It's not obvious that there is a natural psychological kind (picked out by 'experience of flow') that spans the spatial experience and the temporal experience case. Paul's use of the label, it might be suggested, begs the question of how much the two have in common, beyond simply being experiences.

I set this criticism aside, and instead focus on a more flatfooted one. The flatfooted criticism brings out the broader epistemological points that I think are key to explaining why temporal error-theory is a hard sell. The other criticism, even if successfully prosecuted, wouldn't do this.

Suppose I am told, by an experimenter, that what appears to me to be a single moving dot on a screen is in fact no such thing. What I am seeing is just a series of static images. Suppose the experimenter then takes out a flip book, across whose pages a little horse appears to gallop, and points out that this is another case of the brain generating illusions as of motion from static inputs. There is no significant epistemic shock. I offer my 'OK, just an illusion then.' reaction with equanimity. I had no prior commitment to *none* of my experiences being illusory. In the flip book horse case, it's anyway obvious to me before the experimenter says a word that the experience is illusory, because I can see the book of static pages. In the moving dot case, it might or might not be obvious to me that an illusion is in progress before the experimenter clues me in, but it's at least something I am quite willing to take on board.

It would be very different if I were told that *nothing* in fact moves and accordingly that *all* my experiences of motion are illusory. Not just my experience as of the little horse

galloping across the pages of its flipbook, but any experience I have as of a real horse galloping across a real field is an illusion. In response to this putative discovery of illusion, it doesn't seem as though the 'OK, just illusion then' response is equally clearly called for. That's because it's far more certain that that *at least some* of my experiences of motion are veridical than that any particular one is, or that they all are. It's therefore reasonable to be more stubborn in resisting the putative discovery of the global illusion of motion than of the local illusions of motion. Even if there appears to be compelling cognitive science that shows that all experiences of motion are generated by the brain processing static inputs, one might reasonably suspect that what appears to be the best cognitive science story is not in fact that. Perhaps, for example, the story is right in its technical details, but to the extent that the scientists offering it are confident that it does not involve committing to primitive temporal properties they have simply misunderstood the commitments of their own theory. Keynes is reported to have said: 'If you owe your bank a hundred pounds, you have a problem. But if you owe a million, it has.' If there appears to be evidence from an epistemic source that a particular experience of motion is an illusion, that experience shouldn't be trusted. It has a problem. If there appears to be evidence from a particular source that *every* experience of motion is an illusion, it might be thought that that source has a problem, the problem being constituted by the total evidential weight of your experiences as of motion.

Suppose, for a different contrast, that I start off thinking that I have hands, since that's how things visually seem to me. Then I set myself the cognitive scientific task of explaining how my experiences as of hands arise. What appears to emerge, amazingly, is that at no point in the story do I need to posit that I actually have hands. My experiences seem fully explained by some 'hands-free' theory. E.g. I appear to have compelling evidence that my experiences are caused by impacts on my brain that do not involve light falling on the

surface of my retina at all, and so, in particular, do not involve light reflected by hands falling on the surface of my retina. A possible reaction at this point would be to abandon my view that I have hands. But another possible reaction would be to doubt that what appears to be the best story about how my hands-experiences are generated really is that. I might reasonably be fairly confident the evidence I relied on in arriving at the hands-free story must be misleading, or that I simply made some kind of drastic reasoning error.

We have three putative illusion hypotheses – 'My experience as of a single moving dot is an illusion', 'Any experience at all I have of motion is an illusion', 'Any experience as of having hands is an illusion'. The first of these is the one Paul takes as her comparator for the global illusion of primitive temporal properties she thinks a B-theorist should posit. But one might ask why the other two are not even more relevant. Paul's view is that my temporal experiences globally present things as having temporal properties that they don't in fact have. That is, temporal experiences are as of primitive temporal properties (e.g. primitive presentness), and, in fact, such properties are never instantiated. Someone who agrees with her on how experience represents things as being might reasonably insist that it's more certain that at least some of their temporal experiences are veridical than it is that what appears to be the correct cognitive science story really is that.

A second possible reaction they might explore, consistent with not doubting the apparently correct cognitive science story, but also with not giving up the claim that their experiences are veridical, would be to accept the kind of epistemology that some moral-theorists have accepted precisely because they find moral error-theory hard to swallow. Suppose we think that my gut response of moral outrage towards some action provides defeasible evidence that that action is morally wrong. However, when we work towards explaining why the action provoked that response, it seems that its being morally wrong (as opposed to its being the kind of action that there would be some evolutionary pay off for being

disapproving of) doesn't need to be mentioned. One response to this would be to say that the evidence that the action has the property of being morally wrong is now undercut. Another response would be to say that, in fact, the property of being morally wrong must somehow be, or be constituted by, the evolutionary-pay-off associated property that looks to figure in the causal explanation. Suppose neither of these responses appeals to one though. There is a third alternative. One might accept an epistemology on which one can have a way of experiencing and knowing about a property even though the property is not causally involved in producing the experiences one has in which that property is represented (see Enoch (2010) and (2011) for defence). On such an epistemology, the fact that *F*-properties do not show up in the best causal story (e.g. the best evolutionary story or cognitive science story) of how experiences as of *F*-ness are produced is not something that undercuts the evidence those experiences provide. It's exactly what one would expect, even if those experiences are veridical. Someone who agrees with Paul that their experiences are as of primitive temporal properties, and acknowledges that these properties appear not to show up in the causal story about how those experiences are generated, might reasonably avail themselves of the same epistemology. Or they might hedge their bets between this reaction and the last one, saying: it just can't be that all of my temporal experiences are illusions. It may be that the ultimately correct cognitive science will mention primitive temporal properties, or it may be that it won't, because the epistemology of primitive temporal properties is like the epistemology of moral properties. Either way, I need not accept the error theory.

Would that really be a reasonable response? I want to offer a diagnosis of why it might appear to someone not to be. Doing so brings out why Paul's appeal to cognitive science does not affect the stalemate between the A- and B- theorist that I think arises once the B-theorist has conceded that temporal experiences are as of primitive temporal properties.

A B-theorist of a certain uncompromising stripe might comment as follows: 'You're been arguing that Paul's appeal to cognitive science is not *sufficient* to give the B-theorist who thinks that experiences are as of primitive temporal properties the resources they need to deal with the threat from experience. In my opinion, the only issue with the appeal is that it is not *necessary*. Sure, experience provides a bit of evidence against B-theory since experiences are as of primitive temporal properties, but physics provides evidence which is much more weighty for B-theory. So, there is a perfectly adequate *outweighing* defeater of the evidence experience provides against B-theory. So I know B-theory is true. So I know, even without having any cognitive science story about temporal experience in place, that one way or another, a world without primitive temporal properties produces experience as of primitive temporal properties. I don't need any *undercutting* defeater.'

The problem with this comment is that it isn't obvious that how this B-theorist trades off experiential vs non experiential evidential is the only reasonable way of doing it. The comment won't be compelling to a typical A-theorist, and it isn't obvious that this reflects badly on them. The virtue of finding an *undercutting* defeater, as Paul aims to, is that if the evidence experience provides for A-theory is undercut, the scientific and metaphysical arguments for B-theory are pushing against an open door, so that we don't have to decide how disparate evidential considerations trade off. But what I've argued is that Paul's point about the cognitive science of our temporal experiences not mentioning primitive temporal properties only works as an undercutting defeater if we presuppose that our temporal experiences are less evidentially weighty than someone might reasonably think them to be.

Nothing in what I say implies that an A-theorist who insists that their temporal experiences can't all be illusions isn't in a difficult epistemic spot. They have some unenviable commitments. It's not good to have to say that what appears to be the best cognitive

science isn't really that (without having a specific proposal about where, exactly, the story has gone wrong), or that what (at least for many cases) appears to be the right way of thinking of the relation between knowledge and causality isn't really that. But we knew that the A-theorist had unenviable commitments even before it was noted that cognitive science makes no appeal to primitive temporal properties. For example, they have to say how the support physics appears to provide for B-theory is to be explained away. If experiential evidence is weighty enough to make it reasonable to refuse to give up on A-theory despite the physics then, I say, it's also weighty enough to make it reasonable to refuse to give up on A-theory despite the physics, *and* the cognitive science.

We should also ask where the B-theorist ends up. It turns out that they don't end up in a position comparable to someone who has an experience as of a single moving dot but who is told about how the illusion works and thereby has the evidence that experience was providing undercut. The global nature of the temporal illusion being posited affects how easy it is for the experience to get undercut. The B-theorist ends up with physics pointing towards the theory they like, but with experiential evidence stubbornly pointing the other way. They thus can't avoid prioritising non-experiential over experiential evidence. And it was the difficulty of justifying exactly this kind of prioritisation that was the source of the stalemate between A- and B- theorists in the first place.

(III) Error-theory II: Brad Skow

Like Paul, Skow thinks that an error-theory about temporal experiences is required by B-theory. Here is the passage where he sets out his defence of error-theory:

> Let us assume that experience does represent the occurrence of robust passage. Which theory of time better explains why this is so? It can look like the block universe is at a disadvantage. For if there *is* robust passage it is surely easy to explain why there *seems* to be…. Still, as I have said, the argument from the content of experience is not good. We do not need to worry about how good an explanation the block universe theory has, because the moving spotlight theory's explanation is, in fact, *terrible*. (2015: 231)

I'll discuss Skow's passage using the terms I already have in play. 'Robust passage' means change in primitive temporal properties. 'The Block Universe' is B-theory. The moving spotlight theory is the particular version of A-theory that Skow focuses on.

I claim that the basic problem with Skow's defense of error-theory is that our total evidence is not exhausted by facts about explanation. The threat from experience to B-theory *he considers* involves a fact about explanation. But the most serious threat from experience to B-theory, once it's conceded that experiences are as of primitive temporal properties, does not. The most serious threat is the one that Paul articulates – roughly, that we appear to have direct experiential evidence against B-theory, if experiences really are as of primitive temporal properties.

Which theory of time better explains why temporal experiences represent primitive temporal properties? Skow's argument for thinking that the A-theorist has a 'terrible' explanation of this turns on the point that plenty of properties that exist are not visible (or, more generally, represented by experience). E.g. electric-charge exists but is not visible. So, Skow thinks, the A-theorist's explanation of how experience gets to represent primitive temporal properties should address the question of why such properties are visible, like

redness, rather than invisible, like electric-charge. According to Skow, A-theorists haven't done this, which means that their theory has 'a big hole in the middle' (2015:232).

Suppose this is correct. What follows is that the B-theorist has an effective reply to the following inference to the best explanation argument for A-theory: 'If experience actually represents primitive temporal properties, then it must be possible for experience to do that. *How* is that possible? Well, an obvious obstacle to its happening would be if no primitive temporal properties were ever instantiated. That's an obstacle B-theory has but A-theory does not have. Therefore, we can be confident that A-theory will give the *better explanation* of how experience represents primitive temporal properties. Therefore, A-theory should be accepted.'

However, the best argument for an A-theorist who has been granted the premise that experiences are as of primitive temporal properties to make does not mention explanation. The best argument corresponds to the challenge Paul formulated. Here is a recap: if experience represents things as having primitive temporal properties, then experience provides at least *defeasible* evidence against B-theory. If experience doesn't *ultimately* give us evidence against B-theory that must be because something defeats that evidence. So, a B-theorist who thinks that experience represents things as having primitive temporal properties has to identify a defeater.

The only candidate defeater recoverable from Skow's passage is the (putative) fact that the A-theorist *lacks a good explanation* of how primitive temporal properties get to be represented in experience. But that isn't a plausible candidate. Being justified in taking experiences at face value doesn't depend on having an explanatory story about how those experiences represent what they do. E.g. if my experience represents something as red,

that defeasibly justifies me in judging that it is red. My not having a story about *how* the experience gets to represent redness doesn't defeat the evidence it provides. Why should things be any different with temporal experience?

Conclusion: I've focused on Paul's and Skow's particular versions of the error-theory strategy for two reasons. First, they're two authors who've written recently and influentially on the strategy, and who acknowledge the need to say something to make it palatable, in contrast to the hypothetical 'uncompromising' B-theorist I considered in discussing Paul. Second, they look in strikingly *different* places for what the right thing to say might be (For Paul, looking towards cognitive science was crucial; for Skow, cognitive science played no role). We thus get some sense of what the spread of options for developing an error-theory strategy might be. I say that the strategy isn't looking very palatable. Minimally, the B-theorist has serious reason to consider whether there might be an alternative, e.g. the lightweight alterative. We could have considered the lightweight hypothesis without first engaging with the assessment of the error-theory I've offered up to this point.[7] However, without the assessment of the error-theory, the lightweight hypothesis will likely seem like a 'don't care' issue for the B-theorist. Either temporal experience is light-weight (in which case there is no problem for the B-theorist) or it is not but we can point to plausible defeaters of the evidence experience provides against B-theory (in which case, there is again no problem for the B-theory). I've argued that on examination there are no plausible defeaters for the B-theorist to appeal to, once they concede that we have experiences of A-theoretic properties. This is why the lightweight hypothesis has to matter to the B-theorist.

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7 This approach is pursued in Frischut 2015, which, like this paper, says that B-theorists have been too quick to concede that temporal experiences are incompatible with B-theory.

(IV) *Temporal experience as metaphysically lightweight.*

The B-theorists who are error-theorists spend a lot of time refining their error-theories and very little time arguing they are needed. They are needed if and only if experiences represent things as being a certain way, where their being that way conflicts with B-theory. Do experiences do this?

That could happen in two ways. It could happen if an experience, e.g. a visual experience, represents something, e.g. a rain shower, as being *primitively* present. Or it could happen if an experience took a property as an object – e.g. the property the rain-shower is represented as having of being present – and represented that property as *primitive*. Do we have any reason to think that either of these things happens?

Arguing for the method of phenomenal contrast

What we need to address this question is some method for discovering what properties experience represents. My candidate is Siegel's *method of phenomenal contrast.*[8] This is, as she puts it:

8 Other candidates might be tried, in alternative positive arguments for the lightweight hypothesis. But we do need to appeal to *some* such general method, or principal. In the absence of that, the best someone who is attracted to the lightweight hypothesis can do is to find, or construct, attempts to say in virtue of what features of experience there is a clash between experience and B-theory, and rebut these attempts, whack-a-mole style. Frischut 2015 exemplifies this approach, offering interesting critical discussion of three attempts a A-theorist might offer to establish incompatibility. The approach, even if successful in its own terms, does little to establish the lightweight hypothesis. For it leaves open the possibility that temporal experiences are

> 'a way to test hypotheses about the contents of visual experience. Its main strategy is to find something that the target hypothesis purports to explain, and then see whether it provides the best explanation of that phenomenon. Instead of taking a specific visual experience as input and delivering a verdict on its contents as output, the method's starting point is a target hypothesis, and it aims to reach a yes-or-no verdict on that hypothesis.' (2010:88)

An example of a method that takes a specific visual experience as input and delivers a verdict on its contents as output might be the method of *introspecting one's experience and reflecting on what its contents seem to be* (e.g. when I introspect does my experience of a rain shower seem to present the shower as having primitive temporal properties?). Siegel thinks, instead, that we should start with a target hypothesis (e.g. 'Experience can represent *F-ness*') and see if we can find data that that hypothesis provides the best explanation of. If there are such data, then that supports a 'yes' verdict on the hypothesis. It there are no such data, then that supports a 'no' verdict.

The reason the method is a method of *phenomenal contrast* is that the specific kind of data that Siegel thinks content assignments to experiences can do work in explaining are phenomenal contrasts between experiences. If we want to claim that experiences can

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incompatible with B-theory, it's just that none of the specific attempts considered to articulate what features of temporal experience the clash traces back to is successful. Perhaps there is some better attempt to say what the clash consists in that hasn't been considered by A theorists but that is there to be made (It's important, for the force of this worry, that A-theorists and B-theorists have typically taken it as obvious that there is a clash between temporal experience and B-theory. Because of that, A-theorists have felt little dialectical pressure to offer candidates for being the features of experience the clash traces back to.) Perhaps it's just a brute fact about temporal experiences that they clash with B-theory and there's nothing particularly illuminating to be said about what the clash consists in other than that temporal experiences present things as having properties that the B-theorist says nothing has. To rule these possibilities out, we need a positive argument for the lightweight hypothesis.

represent a certain property, *F*, Siegel thinks we should look for a pair of experiences that have the following properties: First, one of the experiences is a reasonable candidate for representing *F* (Siegel calls this 'the target experience'). Second, the other experience differs phenomenally from the first experience and clearly does not represent *F* (Siegel calls this 'the contrasting experience'). The hypothesis that experiences can represent *F* is supported by the method of phenomenal contrast if and only if, for some such pair, the *best explanation* of the phenomenal contrast between the target and contrast experience is that 'represents *F*' is true of one but not the other (see 2010: 90-92).

Why should we think this is a good method for determining the contents of experience? I'll consider the method as it applies to a clear case of a property represented by experience, a 'hard case' of a property represented by experience, and a clear case of a property *not* represented by experience. In each case, the method does seem to yield the intuitively right verdict, which is evidence that the method really is a good way of determining the contents of experience.

Clear cases of representation by experience: e.g. color properties like being blue.

Hypothesis: experience can represent the property of blueness.

Our target experience is the kind of experience I have (in normal conditions) when I am looking at a blue fruit. The contrast experience is the kind of experience I have (in normal conditions) when I am looking at a red fruit. There is clearly some kind of contrast between these two experiences. Moreover, the contrast seems to be phenomenal. The suggestion that this contrast is purely cognitive (e.g. just having to do with what judgments I am disposed to make) seems very implausible. Finally, it is intuitive that the best explanation

of the contrast is that 'represents blue' is true of the target experience but not the contrast experience. So, the method of phenomenal difference returns a 'yes' verdict on the hypothesis. On the assumption that this is the right verdict, that speaks in favor of the method.

Unclear cases of representation by experience: e.g. 'high level' properties like being an English sentence:

Hypothesis: experience can represent the property of being an English sentence

Our target experience is the experience I have when I am looking at an inscription of the English sentence 'There's no place like home'. Our contrast experience is the kind of experience had by a three-year-old child who is looking at the same inscription. There is clearly some kind of contrast between these two experiences. However, it is far less clear than in the previous case that the contrast is phenomenal, as opposed to cognitive. Second, even if the contrast is a phenomenal contrast, it isn't clear that the best explanation of that phenomenal contrast is that 'represents being an English sentence' is true of my experience but not of the child's. An alternative explanation might appeal to differences in my and the child's pattern of attentional focus. Perhaps this explanation is worse, but showing that would require detailed argument. So, the method of phenomenal difference does not return a clean verdict on this hypothesis. On the assumption that this hypothesis does not have a clean and obvious verdict, this speaks in favor of the method. The evidence for this assumption is the existence of a continuing vibrant philosophical debate on the hypothesis. Tye (1995), for example, argues that the hypothesis is false, Siegel herself (see 2010 chapter 4) argues that it is true.

Clear case of non-representation by experience (e.g. mineness as a property of every experience):

Hypothesis: every experience represents the property of mineness.

This hypothesis needs a bit more elaboration than the previous two. The hypothesis is that all experiences represent themselves as belonging to the subject who has them (see Zahavi (2005)). This is sometimes put by saying that every experience involves a 'sense of mineness'.

Notice that this hypothesis is different in form from the other two we've looked at – it is about *every* experience representing a property, not about some experiences doing so. As a result, this hypothesis couldn't possibly be supported by the method of phenomenal contrast. For what pair of experiences would be relevant? The target experience would be an experience that was a plausible candidate for representing mineness. But what would the contrast experience be? It couldn't be an experience that represented mineness, for then there would be no prospect of explaining the difference between the target and the contrast by saying that 'represents mineness' is true of one but not the other. It also couldn't be an experience that doesn't represent mineness, for then it would be a counterexample to the hypothesis that *every* experience represents mineness.

I think the fact that the method of phenomenal contrast can't be used to support this hypothesis doesn't speak against the hypothesis, since I think the hypothesis has no intuitive plausibility. What is more revealing, I think, and positively supports the method, is the next move in the debate made by many of those interested in 'mineness'. This is to attempt to motivate something close to the hypothesis that every experience represents mineness by pointing to the alienated experiences of patients suffering from various kinds of brain-injury, noting that these experiences appear to contrast with our ordinary

experiences, and then claiming that the contrast is best explained by the following hypothesis:

Hypothesis: *ordinary* experiences represent mineness (See Gallagher (2000)).

As with the English sentence case, there's plenty of room for debate about whether the proposed explanation of the phenomenal contrast really is the best explanation. But the revealing thing is that the appeal to the unusual, 'alienated' cases seems to presuppose that something like the method of phenomenal contrast is correct. The 'alienated' cases are relevant precisely because they serve as contrast cases.

Applying the method of phenomenal contrast to temporal experiences

Suppose one agrees that the method of phenomenal contrast is correct. What follows for an account of the contents of temporal experiences? I think it follows, and in fact follows fairly quickly, that the hypothesis that experiences can be as of primitive temporal properties is not justified.

Experience could represent primitive temporal properties in two ways. An experience, e.g. a visual experience, might represent something, e.g. a rain shower, as being *primitively* present. Or an experience might take a property as its object – e.g. the property the rain-shower is represented as having of being present – and represent that property as *primitive*. The method of phenomenal contrast tells us that if we want to argue that either of these things happen, we will have to appeal to some contrast cases whose best explanation is that one or the other of them does happen.

There is a contrast between perceiving a rain-shower and remembering a rain-shower, one that has something to do with time, and one that seems experiential rather than merely cognitive. However, the method of phenomenal contrast, as applied to this perception-memory case, doesn't support the claim that experience involves representations as of primitive temporal properties. The difference is adequately accounted for by saying that the perception represents the rain-shower as occurring *presently* where the memory represents the rain-shower as occurring *in the past*. *Primitive* presentness, and *primitive* pastness, need not come into it.

Perhaps there is the possibility of having an experience where it isn't introspectively obvious whether one is perceiving a rain-shower, as against remembering a rain shower one has seen in the past, or merely imagining a rain shower. However, the contrast between this kind of case and a case of more ordinary perception is adequately explained by saying that in this case the experience fails to represent the rain-shower as having any temporal property – e.g. presentness, pastness – whereas in the ordinary case some temporal property is represented. Again, *primitive* presentness or *primitive* pastness need not come into it.

I submit that if *any* contrast cases supported the hypothesis that experiences represent things as having primitive temporal properties it would be contrast cases like the two just considered (though the reader is invited to spend a moment thinking about whether there might be more plausible contrast cases I haven't considered). So, that hypothesis is not supported by the method of phenomenal contrast. But if the hypothesis were true, it would be supported by that method. So the hypothesis isn't true. So, experience is silent on the debate between A- and B-theory, just as the lightweight strategy says.

The rest of the paper bolsters the lightweight strategy by replying to three objections.

Section V: Three objections to the lightweight strategy

> *Objection (i): The only sense in which something can be temporally present, according to B-theory, is that it occurs at the same time as a given reference time. So, if temporal experiences that represent things as present do not provide any evidence against B-theory, that must be because they represent things as happening at the same time as the experiences themselves. But it's implausible that experiences have descriptive, self-referential contents of this sort.*

If B-theory is right, the only referent for the 'is happening in the present' element of an experience is the property of happening at the same time as the experience itself. If A-theory is right, there is a second potential referent – the property of being primitively present. There are two ways in which an experience could fail to weigh in on whether these extra temporal properties that the A-theorist believes in exist. One is if it was somehow introspectively obvious that the property the experience represents is just the B-theoretic property. That would be the case if the content of temporal experience was descriptive. But, given objection (i), that isn't the best way of developing the lightweight view. The view is that experience presents things, e.g. rain showers, as *being present*. But it isn't introspectively obvious whether '*being present*' picks out a primitive temporal property (as it would be if its content included: 'is primitively present') or a non-primitive temporal property (as it would if its content included: 'is happening at the same time as this very experience').

> *Objection (ii): You formulated the dispute between A- and B- theorists as a dispute about which primitive temporal properties there are. But not all formulations of the dispute focus on the notion of primitiveness. Even if the lightweight strategy is effective with the dispute formulated in that way, what reason is there to think it will remain effective if the dispute is formulated differently?*

I begin the reply to this objection in a slightly round about way, invoking a distinction that is routinely made in many metaphysical domains and that I think it can be helpful to be reminded of when thinking about the debate between A- and B-theory.

It would considerably simplify the formulation of the contrast between A- and B- theory if we could formulate it as a debate about whether time is as it is presented in experience, e.g. whether it can ever be literally true that a rain-shower is happening *now*. But of course that isn't how to formulate the debate. It might be a *consequence* of B-theory that our ordinary talk, thought and experience of time is in error. But that consequence is not definitional. It is, in fact, precisely what is at issue in this paper – should someone who believes B-theory adopt the error-theory or lightweight strategy? Many metaphysical debates – like the debate between A- and B- theory – are debates about the existence of certain kinds of property. Those on the side of the debate who dispute the existence of the disputed kind of property divide into two camps. They can be *error-theorists*, saying that the non-existence of the disputed properties renders large swathes of our talk, thought or experience false. Or they can be *reductionists*, saying that the non-existence of those properties is no barrier to the truth of our talk, thought or experience. Someone who rejects biologically natural racial kinds may be an error-theorist about ordinary race attributions, like 'Joe Biden is white'. But they may be also be a reductionist, e.g. they may be a reductionist of a social constructionist stripe and say that 'Joe Biden is white' is true in virtue of some combination of Biden's morphological features and peoples' attitudes to

those features. Someone who rejects colour properties whose natures are fully revealed by our perceptual experience of colour may be an error theorist. But they may also be a reductionist, e.g. they may be a reductionist of a physicalist stripe and say that 'that berry is blue' is true in virtue of the demonstrated berry's wavelength reflectance properties.

Getting back to the metaphysical debate at hand, if experience just has contents like 'That rain shower is present', it's clear that a B-theorist should say that there is no obstacle to our experiences being veridical, since they can say that the rain-shower is indeed present in so far as it is simultaneous with an implied reference time (the time of the experience itself). That is, it's easy for the lightweight strategy to be the better version of B-theory.

To get a definite challenge from the error-theorist we need some characterization of what it is about the properties the A-theorist believes in that makes them not susceptible to being accepted by the B-theorist together with a claim that experience presents things as having properties satisfying that characterization. The candidate characterization I've considered so far is *'being primitive'*. We've characterized A-theory as follows:

There are primitive temporal properties like presentness, pastness and flow.

It's clear that a *primitive* property of temporal presentness can't be *constructed* out of B-theoretic relations of precedence and simultaneity (a primitive property being one that can't be constructed out of anything). So, it's clear that, if an experience could be as of a rain-shower being primitively present, the B-theorist has to be an error-theorist about that experience. But I appealed to the method of phenomenal contrast to argue that there was never any reason to assign an experience such a content. The argument, based on the

method of phenomenal contrast, was that the only relevant contrast cases are already accounted for by positing contents like

'This rain shower is present'.

'That rain shower is past'.

If that's *all* we need, then *nothing extra* needs to go into the contents – in particular, not 'being primitively present' (in the case of the first experience) or 'being primitively past' (in the case of the second).

The task now is to show that the argument for the lightweight strategy didn't depend on the particular way of formulating the A- vs B- theory debate that I put in play.

Suppose we instead formulate A-theory as follows:

There are temporal properties like presentness, pastness and flow.

This formulation doesn't involve an explicit modifier like 'primitive'. Precisely for that reason, its adequacy as a formulation of A-theory might be disputed. A B-theorist might propose that they too can allow that e.g. there is a temporal property of presentness, since they too can allow that things can be present, and to say that something is present and that it has the property of being present amount to the same thing.

The way to defend the indented claim as adequate to characterize A-theory is to clarify that the word 'property' is supposed to be load-bearing. The thought would be that properties, as such, are monadic. Even if a B-theorist can allow that, e.g., an experience as

of its presently raining is veridical their account of what makes that experience veridical will appeal to the holding of a relation (simultaneity) between the experience and the rain-shower, not to the having of a (monadic) property by the rain-shower.

With that clarified, it becomes easy to see why the viability of the lightweight strategy is not affected by the switch in formulation of the A-theorist's claim. The lightweight claim is that the only relevant contrasts between experiences are already accounted for by positing representations like:

'This rain shower is present'.

'That rain shower is past'.

If that's *all* we need then *nothing extra* needs to go into the contents – nothing to do with primitiveness (as already noted), but equally not 'has the property of being present' (in the case of the first experience) or 'has the property of being past' (in the case of the second).[9] So, whether 'primitive' or 'property' is the load-bearing term in the formulation of the A-theorist's distinctive claim does not make a difference to how plausible the lightweight strategy is.

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9 A final point for the lightweight theorist to make is that if we're more inclined to assign the content 'The rain shower has the property of being present' to an experience than the content 'The rain shower is primitively present' what explains the difference may just be the salience of an alternative looser reading of 'property' on which being a property does not imply being monadic (e.g. this is the reading of 'property' in play in Siegel's question 'What properties does experience represent?' She obviously doesn't think that experience can never represent relations – e.g. one thing being to the left of something else – or that which relations experience represents falls outside the scope of her inquiry about experience). On such a reading, being present, and having the property of being present, really do come to the same thing, and a B-theorist can allow that the property of being present is instantiated, and also that experiences can represent it as being instantiated and nevertheless be veridical.

Objection (iii): You've focused on the question of whether there is a conflict between B-theory and experience, in virtue of experiences' representational contents, and how these represent events out there in the world (e.g. rain showers) as being. But it might instead be that the conflict is between B-theory and experience, in virtue of experiences' phenomenological feel, and how this seems to us when we introspect them. This in fact seems to be what Paul thinks. In the passage you quoted above she writes:

> *'I step out of my house into the morning air and feel the cool breeze on my face. I feel the freshness of the cool breeze now, and, as the breeze dies down, I notice that time is passing….Reflection on the qualitative character of such experiences suggests that events occurring now have a characteristic property of nowness, responsible for a certain special "feel", and that events pass from the future to the present and then into the past' (2010:333).*

Paul's focus here is phenomenological feel, not representational content.

Pointing towards a special feel is indeed how Paul initially articulates the conflict she thinks there is between B-theory and experience. But it's revealing how she immediately afterwards goes on to describe our options. She asks*:*

> 'Must we grant the existence of a primitive property of nowness and of a relation of passage, or do we merely need to grant that we have experiences as of nowness and as of passage? (2010:333)'.

What is revealing here is the use of the 'as of' locution. On the face of it, 'as of' is not a locution that picks out an experience's feel, rather than its representational content. To say that an experience is *as of* certain properties just is to say that those properties are the ones represented by the experience. If an experience conflicts with a theory because the experience is as of something being *F* but, according to the theory, *F*-ness is never instantiated, then the experience just does conflict with the theory *because of its representational content*. Notice further that her appeal to the cognitive science of the perceptual systems discussed in section II was aimed at showing that there was reason to think that our perceptual experiences often *represent* static things as in flow. What makes the slide back towards representational content tempting is that the clearest cut way for an experience to conflict with a theory is to have a representational content that is incompatible with the theory being true.

It's natural, even so, to think that experience can conflict with theories in a different way. One can ask: how does experience seem to be when we turn our attention inwards and make experience the object of our attention – i.e. when we introspect? E.g. one might argue that when we attend to temporal experience we can tell that it has a certain feel, and that this feel could only be the result of the experience being caused by events that have 'a characteristic property of nowness' (the proposal Paul makes) or perhaps by the experience itself having this property. But, the question is, what is the relevant feature of the experience's feel that justifies us in thinking this? Paul herself says nothing about this.

Interestingly, the other error-theorist I discussed, Skow, proposes a candidate. Roughly, his candidate is: 'being privileged'. Skow offers the following argument under the heading 'The argument from the presented experience' (2015: 245-77). Suppose you are currently perceiving a rain-shower but you were previously perceiving a rainbow. According to B-

theory, the experience of the rain-shower and the experience of the rainbow are equally real. But, Skow's argument continues, one of the experiences is presented to you as privileged. What could account for this privilege if not the fact it has the property of being primitively present, as opposed to present relative to one reference time but not to others?

To see how murky the data about 'privilege' this argument is drawing on is, I think it's helpful to compare with an analogous argument in favour of solipsism by Casper Hare. Hare writes: 'Introspect in the right way and you will be confronted by a manifest truth – that a certain person's experiences are present' (2009: 101). Hare's focus here is on people, not times, so he is not using 'present' in a temporal sense. Roughly, what he means is that a certain *person's* experiences are privileged. Hare goes on to account for that privilege by defending the solipsistic view that only one person – Hare himself – exists. Most people are going to reject this kind of view. But notice that most people won't feel that introspecting in the right way gives them evidence that only they exist that is simply *outweighed* by evidence pointing in the other direction. Introspecting one's experiences provides *no* evidence for solipsism. The only sense in which *my* experiences are privileged is that they are the only ones *I* can access by introspection. Similarly, one might think, the only sense in which in which the experience I now have of a rain-shower is privileged (over the experience of the rainbow) is that I can *currently* introspect it. For Skow's argument to work, it has to be obvious to introspection that the privilege the experience has is one that it has intrinsically rather than in virtue on a relationship to anything else. But, on the face of it, to think this would just be crediting introspection with discriminatory capacities that we have seen no reason to credit to perception. If it is harder to see that this is wrong than it is to see that the analogous claim about perception is wrong, that is plausibly because introspection is a less well understood faculty than perception is.

Conclusion

Working out whether experience has commitments that are incompatible with B-theory is a tricky business (just as, e.g., deciding whether our ordinary talk, thought and experience of race or color is incompatible with the non-existence of biological racial kinds, or color properties whose natures are fully revealed by experience is a tricky business). To decide, we need some method for working out what the temporal commitments of experience are. The method I've proposed relying on is Siegel's method of phenomenal contrast. This method wasn't conceived with issues of temporal commitment in mind particularly. But, precisely for that reason, it is a plausible candidate for being a neutral adjudicator and it is independently motivated. The verdict it returns is that temporal experience does not weigh in on the question of whether temporal properties like presentness and pastness are primitive (or whether they are fundamental, or whether they are properties as opposed to relations). This isn't very surprising, from the perspective I highlight at the beginning of this paper. Experience is arguably the most primitive kind of intentional contact with reality. By contrast, metaphysical inquiry is one of the heights of human thought. There's no obvious reason to expect the former to weigh in on the latter. But the point is surprising, in the context of recent philosophy of time. It does conflict with how both A-theorists and B-theorists have typically conceived the role of experience in their dispute. And, I've proposed, it does have the capacity to overturn the stalemate in which the A-theorist and B-theorist argue inconclusively about whether the metaphysical and scientific evidence for B-theory is weighty enough to defeat the evidence experience provides against it.

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