

# On Explaining Why Time Seems to Pass

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## Introduction

Contemporary metaphysics of time is shaped by the opposition between A- and B-theorists. Usually, the B-theory of time is taken to involve the claim that time does not, in reality, pass: on the B-theory, nothing really becomes present and then more and more past, times do not come into existence successively, and which facts obtain does not change. Instead, time consists of a succession of equally real times/events, standing in temporal relations to one another; and being 'past' or 'present', like being 'there' or 'here', is a matter of perspective. A-theories, by contrast, come in many varieties. One of the most popular kinds of A-theories is presentism, which is the view that (necessarily) only present things exist. Other well-known A-theoretic views include the growing block view, which says that only the past and the present exist, and the moving spotlight theory, which says that all times exist but they become present successively.

The A versus B-debate is often taken, in part, to be a debate about whether or not time has a dynamic aspect, i.e. whether or not time passes. Thus, A-theorists are seen as vindicating the claim that time passes by providing robust metaphysical accounts of what time's passing consists in, while B-theorists typically deny that time passes. So it is natural to think that the B-theory paints a rather counter-intuitive picture of the nature of time, i.e. that B-theorists present time as being very different from the way it is presented in temporal experience. Our experience of time, it is thought, straightforwardly clashes with the B-theory, and so provides strong evidence against it. For this reason, B-theorists have tried to offer explanations for why we experience time the way we do, and in particular of why it seems to us that time passes.

In this paper, I examine three recent proposals of this kind and argue that, though intriguing, the proposals to some extent undermine the explanatory project at hand. That is, they to some extent undermine the claim that there is an element of temporal experience which B-theorists need to take to be illusory. My contention is compatible with the rejection of either one of the following two pre-suppositions of the project: 1) that we experience time as passing and 2) that the B-theory excludes passage. In this paper, I will not discuss which of these should be given up; instead, I merely aim to destabilize the common view that both are correct, and that together they give rise to a genuine explanatory project about experience.

## 1 Le Poidevin

The first challenge facing any B-theorist who wants to explain why it seems to us that time passes even though it really doesn't is to say something informative about what our experience of passage amounts to. What kind of, or aspect of, temporal experience, mistakenly gives us the impression that time passes?

One popular thought is that the culprit is our experience of time on short time scales. Hearing a lawnmower, for example, or seeing a bird fly overhead, or just perceiving our own changing thoughts and sensations; all these momentary temporal experiences, it is claimed, intimate the passage of time.

Robin Le Poidevin is an example of a B-theorist who takes our perception of time on short time scales to be the primary explanandum.

“We are indirectly aware of the passage of time when we reflect on our memories, which present the world as it was, and so a contrast with how things are now. But much more immediate than this is *seeing* the second hand move around the clock, or *hearing* a succession of notes in a piece of music, or *feeling* a raindrop run down your neck.”<sup>1</sup>

Le Poidevin’s answer to the question of why time seems to pass is that we *project* passage – along with presentness, pastness and futurity – on to the world in response to certain aspects of temporal experience. The claim is intended to be similar to projectivism about colour, i.e. the view that objects are not coloured, but that certain properties of objects cause in us sensations that make us attribute colour to them.<sup>2</sup> The world does not contain A-theoretic properties of pastness, presentness, or futurity, and it does not contain temporal passage understood either in terms of such properties or otherwise. Rather, certain features of temporal experience cause us to mistakenly attribute such properties, and temporal passage, to the world. Thus our perception of time is subject to a pervasive error.

However, it turns out that Le Poidevin’s discussion actually lends very little support to this projectivist thesis. My main concern is with passage, rather than presentness, but I will consider three potential sources of support for projectivism about passage: his argument for the claim that we also project presentness on to the world; his discussion of our perception of time on small time scales; and his discussion of certain empirical results concerning motion perception. My conclusion will be that his discussion throws doubt on the idea that B-theorists need to take any aspect of temporal experience to be illusory to begin with.

### 1.1 Projecting the Present

Given the structure of the relevant chapter (“Projecting the Present: the Shock of the Now”), one might think that some support for Le Poidevin’s projectivist thesis arises from his prior discussion of our experience of the present.

However, Le Poidevin’s discussion of presentness is strikingly deflationary. He begins by arguing that our experience of events ‘as present’ is not interestingly different from our experience of events, and that it is not the case that we ‘experience only the present’ (in part because perceptual signals take time to reach us). He then settles on the following two aspects of experience as the only significant explananda in the vicinity: the temporal limits of perception, and intersubjective agreement on what is happening now.

Consider the first of these, namely the fact that “we do not (ordinarily) talk of perceiving the future or the past”.<sup>3</sup> This fact inclines us to posit an objective, and not merely perspectival present, thereby departing from the B-theory.

“[A]s these limits are not chosen by us, we naturally suppose that it is some feature of the world that narrows our attention to this moment of time we call the present. And the simplest way of articulating this is to say that it is because events *are* present that we see them as such ... .”<sup>4</sup>

Le Poidevin then offers his own B-theoretic explanation of the temporal limits of perception. The details of the explanation need not concern us; suffice it to say that the key ideas are that perception is a causal process, that causes typically precede their effects, that there is no unmediated action at spatial and temporal distances, and that once information impinges on our perceptual

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<sup>1</sup> Le Poidevin 2007, p. 87.

<sup>2</sup> Boghossian and Velleman, 1989.

<sup>3</sup> Le Poidevin 2007, p. 76.

<sup>4</sup> Le Poidevin 2007, p. 76.

systems, it needs to be moved into memory to make way for new information. What is important for my purposes is that on the B-theoretic story sketched, the aspect of experience in question, namely the temporal limits of perception, is entirely veridical. Given Le Poidevin's own (to my mind, very plausible) explanation of the datum, there indeed *are* several features of the world that "narrow(s) our attention thus". Whence the experiential threat to the B-theory?

Of course it may be that this aspect of experience inclines us to *think* that there is an objective present. But that is not a point about experience; it does nothing to license the claim that in perception, we mistakenly project presentness on to the world. Perhaps it is even the case that most people's folk explanation of the temporal limits of perception involves an objective present.<sup>5</sup> But the folk may tend to offer incorrect explanations for certain aspects of experience, without experience itself being thereby non-veridical.

At best, Le Poidevin is explaining away a mistaken tendency to take our experience to be of an objective present; which is to say he is explaining a tendency towards an A-theoretic *intuition*. But even if there is this tendency, and even if it is deeply engrained in us, this hardly licenses the claim that our *perception* is subject to a systematic error.

The explanation of intersubjective agreement which Le Poidevin takes from Jeremy Butterfield is even explicitly aimed at explaining away A-theoretic *intuitions*, such as that we tend to think of ourselves as sharing a now but not a here.<sup>6</sup> After he has made this intuition precise, Butterfield in fact notes that we share both a now *and* a here; what needs explaining is just that we don't usually see this analogy.<sup>7</sup>

## 1.2 The Phenomenological Paradox

Le Poidevin's next point of discussion concerns the traditional puzzle over our perception of time on short time scales, which he calls "the phenomenological paradox". Briefly put, the puzzle is how it can be that we experience succession, i.e. temporal extent, given that we only experience what is present.

Le Poidevin begins by noting that if our perception of time on short time scales really is contradictory, then the support it can give to the A-theory over the B-theory is compromised. It cannot be the case that both of two contradictory elements of experience intimate how things are in the world. In particular, if perception really is limited to the present, then perhaps we don't really perceive motion, change, and the passage of time, even though we seem to. But the response Le Poidevin favours is one that does not make our experience of time contradictory, and one that constitutes a solution to the puzzle. He suggests that

"[w]hat gives rise to the experience of pure succession [in a case where a C and an E are heard successively] . . . is the conjunction of the perception of E with the very recent memory of C."<sup>8</sup>

Here, I am concerned not with the merits of this and other solutions to the puzzle, but with the role that the puzzle, and Le Poidevin's solution, play in his discussion. Does either lend any support to his claim that we project passage on to the world?

It seems that the answer, again, is No. As for the puzzle, as Le Poidevin himself points out, it

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<sup>5</sup> Although I think is not clear from the outset that 'the folk' really do endorse the kinds of A-theoretic explanations Le Poidevin has in mind (as developed on pp. 84), as opposed to explanations that are not articulated fully, and which are compatible with either metaphysical view of time.

<sup>6</sup> Butterfield 1984.

<sup>7</sup> Craig Callender (Callender 2008) also argues persuasively that what needs explaining (away) in connection with the present is no aspect of experience but rather a number of intuitions. He develops Butterfield's explanation of those intuitions further.

<sup>8</sup> Le Poidevin 2007, p. 92.

presents more of a problem for A-theorists arguing from experience than for B-theorists.<sup>9</sup> And as for his solution to the puzzle, again Le Poidevin says that

“[it] is an explanation that favours neither side of the metaphysical debate. It is consistent with both the A-theory and the B-theory. But its very neutrality shows that there is nothing in these data to incline us towards the A-theory.”<sup>10</sup>

So, even according to Le Poidevin, there is nothing in “these data”, i.e. in our experience of succession, to incline us towards the A-theory. So far then, we have no reason to think that our temporal experience involves any error, even on the B-theory. The case for projectivism rests entirely on the discussion of empirical results concerning motion perception.

### 1.3 Motion, Passage, and Projection

He mentions two groups of empirical findings.<sup>11</sup>

The first group concerns the fact that the brain has to “actively interpret” information from both the eye/head system and the image/retina system in motion perception. For example, when we track a moving object with our eyes, the retinal image stays constant, but we nonetheless correctly register motion because our eyes are moving, and the brain registers this movement and takes it into account. Moreover, when we sweep our eyes across a static scene, information from the two systems can cancel each other out: the brain registers the changing retinal image, but attributes this to the fact that the eyes are moving. What is significant, Le Poidevin thinks, is that the brain’s interpretation of eye movements depends not on the brain’s passively receiving information from the eye muscles, but rather on the part of the brain responsible for controlling eye movement. For example, when the eyeballs are mechanically moved by being gently pressed, the brain incorrectly registers motion (of external objects). Moreover, when the eyeballs are prevented from moving and the subject tries to move them, motion is still incorrectly registered.<sup>12</sup>

On the basis of these findings, Le Poidevin writes:

“[The] datum of experience, that we perceive motion, is ... no mere passive reception of an objective phenomenon, but one that arises, in part, from the active interpretation of the mind. It is, at least in some cases, a *projection*.”<sup>13</sup>

However, as Ian Phillips has pointed out, “active interpretative involvement” of the brain in the perception of motion and of change is not straightforwardly a sign that these aspects of experience are illusory, i.e. that they do not put us in touch with aspects of the world.<sup>14</sup> Instead of taking evidence for such mechanisms to show that we project motion and change on to the world, we may as well take it to shed light on what it *is* to perceive motion and change.<sup>15</sup>

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<sup>9</sup> Indeed the traditional concern with it may well have been motivated by a latent presentist ontology: if neither the past nor the future are real, how can it be that we are aware of temporally extended contents? Thus, Shaun Gallagher writes: “[T]he specious present ... is always conceived in this Jamesian tradition as a sensed or ‘perceived’ duration that purportedly operates as a solution to what we have called ‘the problem of objective synthesis’. That is, it addresses the problem of explaining how we can perceive objects as either changing or persisting over time, despite the fact that the past seems not to persist or have actuality.” Gallagher 1998, p. 18.

<sup>10</sup> Le Poidevin 2007, p. 92.

<sup>11</sup> See Phillips 2009 for references to more recent results on these issues.

<sup>12</sup> Gregory 1966, p. 90-99.

<sup>13</sup> Le Poidevin, p. 93.

<sup>14</sup> Phillips 2009, p. 443.

<sup>15</sup> One might also query how useful it is to call the interpretative activity in question ‘active’, since presumably the brain does not ‘passively’ interpret data, nor indeed passively fulfil any of its functions. Thanks to an anonymous referee for this point.

The second group of findings concerns what is known as the “flash-lag” phenomenon. Here, subjects are presented with a moving dot on a screen, and a second dot (the “flash”) that appears very briefly directly above or below it. In a significant number of cases, subjects report that they see the second dot slightly behind the moving one, instead of directly above or below it. There are different suggested explanations, but they often involve interpretation on the part of the brain. For example, it has been suggested that the brain makes adjustments to the information it receives about the position of rapidly moving objects, so as to compensate for the time it takes for it to process visual stimuli.<sup>16</sup> Thus, the prior movement of the first dot leads the brain to estimate that its current position is further along in the direction of movement. The perception of the second dot is not subject to the same compensation since there is no prior information about its position; hence the “lag”. Even more strikingly, some experiments suggest that if the first dot’s trajectory changes after the flash, it is the post-flash trajectory that matters, not the pre-flash trajectory. Accordingly, it has been proposed that the brain integrates various data and backdates it to the moment of the flash (“decides ... what it *has* seen”).<sup>17</sup>

It seems to me that, interesting though these findings are, they do not by themselves constitute sufficient grounds for projectivism. Even if they pose a formidable challenge to our naïve picture of temporal perception,<sup>18</sup> they do not license the claim that our perception of motion and change in general is illusory. Le Poidevin himself concedes this, as well as the fact that normally, the best explanation for an experience as of motion is that we are genuinely presented with motion.<sup>19</sup> But this is a significant concession: for the explanation to go through it is not enough that there be some cases of perceptual illusion. What is needed is an element of temporal perception that is pervasive, and which yet involves an illusion. Otherwise, there is no reason to think that our experience of motion and change in general involves an illusion of passage. And, as noted above, that element cannot just be the brain’s fulfilling an interpretative function in perception; this function may be simply an integral part of motion perception, much of which, as Le Poidevin himself notes, is veridical.

So neither our intuitions about an objective present, nor the “phenomenological paradox”, nor certain interesting perceptual illusions provide us with reason to think that we project passage, motion and change onto the world. And perhaps this is as we should have expected. After all, the idea that there can be change without tensed facts, or an objective present, is central to the B-theory. Why then should B-theorists deny that we perceive change? What reason is there to suppose that if change in the B-theoretic universe poses no special problem, our perception of change does?

## 2 Paul

Laurie Paul is another example of a B-theorist who feels there is a problem.

“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 – I need to start walking or I will be late for class.”<sup>20</sup>

It is important to realize how theory-laden this assumption about experience is. Of course it is obvious that we all have, at various times, experiences of feeling cool breezes, of glancing at our

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<sup>16</sup> Nijhawan 1994.

<sup>17</sup> Eagleman and Sejnowski 2000.

<sup>18</sup> Dennett and Kinsbourne 1992.

<sup>19</sup> Le Poidevin 2007, p. 95.

<sup>20</sup> Paul 2010, p. 1.

watches, and of noticing what time it is, as opposed to what time it was a minute ago. But much more is being assumed here, namely that we experience events in a way that suggests that they are objectively PRESENT, and that they pass from the future to the present and then into the past. The assumption is that your experiencing a change in a leaf involves much more than your first seeing the leaf crisp and then seeing it wilted (and maybe seeing it wilt). It is that it involves your seeing first the leaf's-being-crisp being PRESENT, and then the leaf's-being-wilted being PRESENT, while the leaf's-being-crisp seems no longer PRESENT.

As in the case of Le Poidevin, I shall argue that Paul's discussion raises doubts about the assumption it is predicated on.

To start with, Paul's discussion of our experience of the present paints an even more deflationary picture of that aspect of experience in question than does Le Poidevin's. The explanation, briefly put, is that the what-it's-like of any experience includes an "experience as of nowness", just like it includes an experience of "thereness or hereness".

"[O]ur experience as of nowness is simply part of the experience involved in being conscious and ... as long as we endorse enough ontology to make sense of the oomph of consciousness, we have enough ontology to make sense of the oomph of nowness."<sup>21</sup>

"[Q]ualitative properties of events cause phenomenal properties in us. ... At some time  $t_0$ , there is a ... qualitative property  $R$  of event  $E$  that causes phenomenal property instance  $C$  at  $t_1$  in me. ... My having  $C$  at  $t_1$  realizes my experience as of  $R$ -ness now, at  $t_1$ . The experience that is the having of a neural state is more than just an experience as of a quality like redness, it is an experience as of nowness (and of thereness or hereness) as well."<sup>22</sup>

The trouble with this is just that it makes a mystery of what it was that had to be explained in the first place. Either, as A-theorists hold, and as Paul officially agrees, there is an asymmetry in the phenomenology of nowness and hereness, which creates an explanatory burden for the B-theorist. Or, we experience the 'here' to be just as special as the 'now', in which case there is no such explanatory burden to begin with. In a footnote, Paul mentions that, as B-theorists have often pointed out, "we do not infer from our experience of 'hereness' that there is some mind-independent property of hereness in addition to a property of having a particular location" and asks "why do it with nowness"?<sup>23</sup> The relevant answer, namely the answer an A-theorist arguing from experience would give, is that our "experience as of nowness" differs importantly from our "experience as of hereness": that special feel of the present is not matched by anything as special when it comes to hereness. There are (at least) two possible B-theoretic replies: either deny that there is this asymmetry, or argue against the inference to an A-theoretic ontology. Paul, it seems to me, is doing the former rather than the latter, contrary to her official thesis.

Let me now turn to Paul's explanation of why time seems to pass. Like Le Poidevin, Paul takes the key explanandum to be our experience of motion, and of change in general. We have experiences as of "animated" or "flowing" or "real" change (where the latter is defined A-theoretically), which suggest that there is passage. And like Le Poidevin, Paul bases her proposed explanation on a number of experimental results concerning certain kinds of perceptual illusions.

According to Paul, both veridical perception of change and illusory perception of change involve an illusion of "animation" – so the latter is doubly illusory, the former only singly so.<sup>24</sup> The

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<sup>21</sup> Paul 2010, p. 8.

<sup>22</sup> Paul 2010, p. 10.

<sup>23</sup> Paul 2010, p. 11, fnote 17.

<sup>24</sup> E.g. on p. 26: "[T]he apparent motion ... presents us with two illusions. The first illusion is as of motion, that is, as of a persisting object changing its location ... The second illusion is as of flow or animated character, that is, of the animation arising from "the motion of the dot" ... These illusions are different because motion is not flow."

idea is that B-theorists can take the explanation appropriate to cases of illusory motion perception and apply it, with very few changes, to the pervasive illusion of “animation”. The key is to think of the static images involved in perceptual illusions, or of films or flipbooks, as analogous to the B-theorist’s “static” facts underlying change.

Take for example the “colour-phi experiment”, in which a subject is presented with a rapid succession of flashes of a static dot of different colours on opposite sides of a screen. If the flashes are spaced appropriately, the subject has the illusion of a dot moving continuously back and forth and continuously changing colour back and forth. The static inputs [red flash left], [green flash right] are thought of as analogous to the “static” B-theoretic facts underlying any change, such as [*O* has property *P1* at *t1*], [*O* has property *P2* at *t2*]. In both cases, the brain “responds to closely spaced inputs that have sufficient similarity (yet have qualitative contrasts of some sort) by accommodating and organizing the inputs”, thereby creating a sense of animated change.<sup>25</sup>

So, in a nutshell, the recommendation is: if you’re a B-theorist, think of life as a whole as a kind of film. There are only static images, one after the other, but because of our limited powers of discrimination, we experience “animation” instead. Because the illusion of “animation” is created in cases of illusory motion perception, alongside the illusion of motion, we can take it to also be created, in a similar way, in cases of ordinary motion perception. “[I]f 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.”<sup>26</sup>

Though intriguing at first sight, the proposal appears problematic on closer inspection. Does the cognitive mechanism by which the brain creates the illusion of “animation” or “flow” in ordinary perception also operate in cases of apparent motion? It is very natural to think the answer should be yes – after all, the whole point of the comparison was that both involve the very same element of illusory “flow”. But the mechanism in question is supposed to be constituted by the brain’s response to inputs of the form [*O* has property *P1* at *t1*], [*O* has property *P2* at *t2*]. Yet, in cases of apparent motion, there are no such facts involved, since there is no single object that occupies first one location and then another. How then can this mechanism be in play in both kinds of case?

A related problem with this interpretation is that the mechanism that is now supposed to be in play in cases of genuine and cases of apparent motion is clearly *not* the empirically well-documented mechanism that results in an illusion of motion in the latter cases. After all, that mechanism is not in play in cases of genuine motion. So in cases of apparent motion, there have to be two distinct mechanisms in play: one resulting in apparent motion, the other in apparent “flow”. But that conclusion does not seem to be licensed by the empirical results cited, nor does it seem independently plausible.

So maybe the idea is not that there are two distinct cognitive mechanisms at play in cases of apparent motion, but merely that there are two distinct illusions created in such cases, by one and the same mechanism. That mechanism is distinct from the mechanism in play in cases of ordinary perception, but the latter is closely analogous to it (via the ‘film’ analogy discussed above). If this is the idea, the above problems are avoided; however, the claim that there are really *two* illusions involved in cases of apparent motion now seems less plausible than ever. The illusion that is created by the brain’s response to the static inputs [red flash left], [green flash right] is the illusion of a single dot moving and changing colour. If the change has an “animated” character, then that character is not a separate illusion, but just an aspect of the illusory motion experienced.<sup>27</sup> The

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<sup>25</sup> Paul 2010, p. 22.

<sup>26</sup> Paul 2010, p. 21.

<sup>27</sup> If the one cognitive mechanism in play really gave rise to two illusions, it should be conceivable that it instead gave rise only to the illusion of apparent motion, and not that of “animation”. But what would the resulting experience be like? Could there be an experience of a dot continuously moving and changing colour, which lacks “animation”? If so, I must admit I am at a loss as to what “animation” is.

illusoriness of the experience of apparent motion concerns the (seeming) movement of the (seemingly) numerically identical dot. It is hard to see what the second illusion could be, or why it should be given rise to by the same cognitive mechanism.

It might be objected that although Paul explicitly takes apparent motion to involve two distinct illusions (“[t]hese illusions are different because motion is not flow”, p. 26), she maybe needn’t do so.<sup>28</sup> Perhaps the only real illusion involved in both apparent motion and ordinary motion perception is that of “flow”; the experience of apparent motion is not illusory in the same sense, i.e. it does not present us with something not really there to be perceived. Instead, it merely concerns our limited powers of acuity, which make us unable to perceive the gaps between images. By contrast, in ordinary motion perception, there are no such gaps to be perceived, because the successive temporal stages of objects succeed each other in a continuous manner. The problem with this suggestion is that it is then unclear what the proposed explanation is of how the illusion of “flow” arises in genuine motion perception. The suggestion rightly emphasizes the difference between apparent and genuine motion perception, but thereby severs the link that Paul needs for her explanatory purposes. Suppose that in cases of apparent motion perception, our limited powers of discrimination explain not only the apparent motion but also the illusion of “flow”. No such limited powers of discrimination are in play in genuine motion perception, so they cannot create our illusion of “flow” there. The idea, recall, is to posit a somehow closely analogous mechanism in the case of ordinary motion perception. But now where has the analogy gone? The brain is supposed to “fill in” information in ordinary motion perception too (p. 20), making it appropriate to think of the whole of life as a kind of film. But, as the objection rightly notes, life is very much unlike a film, because in life, there is a continuous succession of stages.

This gets us to the underlying problem: even on the B-theory, the analogy between life and film is strained. For, as B-theorists have sometimes pointed out, “changeless” B-theoretic facts concerning the successive replacement of properties are not themselves in time; so they are literally neither “static” nor “dynamic” (or “animated”). We do not experience [*O* has property *P1* at *t1*] for a short time, and then [*O* has property *P2* at *t2*] for a short time, like we (perhaps pre-consciously) experience [red flash left] for a short time, and then [green flash right] for a short time.

Paul writes that

“our experience as of change associated with motion can be an illusion in the sense that a series of static, ontologically distinct images of similar instantaneous objects can create a response in us that is phenomenally identical to what it is like to see a persisting, changing, moving object. This gives us the interesting result that, for normal humans, there may never be any phenomenal difference between our experience of a series of instantaneous objects that are appropriately spatiotemporally spaced and qualitatively similar and our experience of a moving, changing, persisting object with the same qualitative and locational variation as the series.”<sup>29</sup>

To my mind this too indicates that something has gone wrong, because on the obvious reading, it merely says that there are illusory perceptions of motion. Of course there is no phenomenal difference between our experience of instantaneous objects spatiotemporally spaced such that they seem to us like a single moving object, and our experience of moving objects. Contrary to suggestion, that fact does not constitute any sense in which ordinary perception of motion and change is illusory.

Of course, Paul explicitly assumes from the outset that it is. But the assumption appears unmotivated once one more closely examines the proposal built on it.

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<sup>28</sup> Thanks to an anonymous referee for raising this objection.

<sup>29</sup> Paul 2010, pp. 25/6.



Simon Prosser thinks that proposals like Le Poidevin's and Paul's miss the real explanandum. Explanations of our perception of change, he says rightly, are still compatible with "the perceived change being the kind of change posited by the B-theory".<sup>30</sup> For that reason, he thinks that such explanations cannot be the whole story. But actually, his proposal bears striking similarities to the previous two, and, I shall argue, suffers from similar problems.

Prosser holds that in order to explain why time seems to pass, it is sufficient to state the representational content of the relevant element of experience and explain why it has that representational content. The idea behind this methodological suggestion is we mustn't expect too much of the explanation being sought. That explanation need not explain the nature of conscious experience *per se*, it merely needs to answer two questions: what is represented by the element of experience that we associate with time seeming to pass? And, why is that content represented?

Prosser's answers to these questions are as follows. First, the element of experience that we associate with time seeming to pass, according to Prosser, is that things persist by enduring rather than perduring. He acknowledges a debt to previous suggestions to the effect that the key lies in our experience of an enduring self which he sees as more specific proposals than his own.<sup>31</sup> Whether it is the endurance of a self or the endurance of other objects that matters, the idea is that it is our representation of things as *enduring* that is key.

Second, the reason this content is represented, according to Prosser, lies in "a kind of 'laziness' or 'economy' on the part of the human visual system".<sup>32</sup> He, too, invites us to consider the illusion of apparent motion familiar from films, in which a series of static images at different positions is experienced as a single moving object, provided the images are presented in sufficiently quick succession. It is "economy" on the part of the human visual system that is responsible for this illusion of a single object persisting. Moreover, Prosser takes it that this "economy" is responsible for our representing things as enduring, and that a representation of things as perduring would be rather like a representation of a series of static images involving no change at all.

Prosser anticipates and discusses the objection that perdurantism, after all, is also a theory of persistence, so that a representation of perdurance also constitutes a representation of a single object changing. His response is that change is not experienced in the way that perdurantism understands it, but rather in an endurantist way; when we experience an object changing from being *F* to being non-*F*, we do not experience an *F* part of the object followed by a non-*F* part. But it is not obvious that this point really is an experiential one. The perdurantist view of persistence may simply clash with our commonsense understanding of change; we may even have a deeply engrained endurantist *intuition*, without *experiencing* things specifically as enduring, rather than perduring.<sup>33</sup> Perhaps the experiential claim could be argued for successfully, but the considerations Prosser adduces in its support seem to me problematic.

The first consideration is that an experience of things perduring should be at least partially analogous to an experience of seeing first one spatial part of an object and then another. Yet, seeing (for example) first a red part of an object and then a green part, perhaps because it is moving across one's visual field, is nothing like seeing something change from red to green. But the perdurantist can agree with that. Seeing spatial variation of colour, at a time or over time, is nothing like seeing a change in colour, because spatial parts are not temporal parts. The difference matters greatly,

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<sup>30</sup> Prosser, forthcoming, p. 5.

<sup>31</sup> Velleman 2006.

<sup>32</sup> Prosser, forthcoming, p. 24.

<sup>33</sup> In this respect the situation here is similar to that in the case of Le Poidevin's discussion of our experience of the present. However, unlike Le Poidevin's, Prosser's discussion does not straightforwardly lend itself to a re-interpretation that takes the discussion to provide support for the weaker claim about intuition.

because it is what constitutes the difference between spatial variation and change, for the perdurantist. One can take issue with his account of change, claiming that it assimilates change to spatial variation, but if that is the criticism, it is not about experience.

The second consideration concerns the analogy with films and flipbooks. The idea, recall, is that a representation of things as perduring would be rather like a representation of a series of static images involving no change at all. But why think this? Time-slices of objects are not presented to us for periods of time. They are, therefore, not like static images of the kind films are made of; any more than are facts of the following form: [(enduring object)  $O$  is  $F$  at  $t1$ ], [(enduring object)  $O$  is not  $F$  at  $t2$ ]. Yet, the contention is that a representation of objects as enduring makes for an experience of change, while a representation of objects as perduring does not. But this is to tacitly reject the perdurantist analysis of change altogether, by identifying persistence with endurance: the experience of apparent motion, Prosser says, is “an experience [which] represents an *enduring object instead of a series of distinct short-lived objects*” (p. 25; emphasis added).

Another line of support Prosser develops for his proposal is the following. He argues, first, that the content represented by the experience of time as passing is a necessary falsehood, and second, that the representation of things as enduring involves just such a necessary falsehood, because it is contradictory: one and the same thing is represented as being both  $F$  and not  $F$ . I will briefly comment on each of these claims.

First, consider the argument for the conclusion that the content in question is a necessary falsehood:

- 1) Let  $P$  be any contingent perceivable proposition.
- 2) There is a world,  $w$ , in which  $P$  is true and in which a subject,  $S$ , veridically perceives that  $P$ .
- 3) In some such world  $w$  the subject  $S$  also experiences time as passing.
- 4) Within a single subject at a single time no two phenomenologically distinct experiences have the same representational content.
- 5) (From 2), 3) and 4)): Since, in  $w$ ,  $S$  perceives that  $P$  and experiences time as passing, the latter experience does not represent that  $P$ .
- 6) If the experience of time passing does not represent that  $P$  in some such world  $w$  then it does not represent that  $P$  in the actual world.

Conclusion: (From 1), 5) and 6)): The content of the experience of time passing is not contingent. Hence, given that it is not veridical, it is necessarily false.

It seems to me that there is a premise missing here, to the effect that  $S$ 's experience involved in the perception of  $P$  and  $S$ 's experience of time's passing are phenomenologically distinct. But assuming so would be begging the question.

Moreover, even if the argument succeeded, it would not be clear how much support its conclusion could provide for the proposal, because the claim that a representation of things as enduring involves a necessary falsehood is also problematic. Prosser is of course aware of endurantist accounts of change which claim that there is no contradiction, such as relationalist accounts (which construe a change in an object  $O$  from  $F$  to not  $F$  as  $O$ 's standing in the  $F$ -relation to  $t1$  but not to  $t2$ ). He is prepared to accept that the argument only goes through on the assumption that such accounts are false. But, as he himself emphasizes, what matters is whether a contradiction is involved in our *representation* of endurantist change, i.e. whether a seemingly enduring thing's *seeming* first  $F$  and then not  $F$  involves a contradiction. This, it seems to me, is even more doubtful than the metaphysical claim. It is not, I think, obvious that our experience of change, whether we experience things specifically as enduring or not, involves a sense of contradiction. That is, it is not clear that we have a constant sense of incompatibility, of “one state of affairs constantly giving way to a new and incompatible state of affairs”.<sup>34</sup> What is more, Prosser himself seems to concede this.

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<sup>34</sup> Prosser, forthcoming, p. 26.

Thus, when he considers the idea that change may be represented by contents such as “FO”, at  $t_1$ , and “ $\sim FO \ \& \ Past \ (FO)$ ”, at  $t_2$ , he says: “[T]his might help explain why it does not *seem* to us that change involves a contradiction, even though it really does.”<sup>35</sup> Yet the official thesis is that change seems to involve a contradiction, even though it really does not.

In short, it seems to me that Prosser’s proposal, too, is problematic in a way that should throw some doubt on the project at hand.

## Conclusion

I have criticised three prominent B-theoretic proposals for why we experience time as passing. Given the difficulties associated with these proposals, we might question the presuppositions of the project at hand. As mentioned, the most central of these presuppositions are 1) that we experience time as passing and 2) that the B-theory excludes passage. I have not, in this paper, said anything about which of these might be preferable. But I hope to have made a case for the need to re-think the project of providing B-theoretic explanations for our experience of passage.<sup>36</sup>

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<sup>35</sup> Prosser, forthcoming, p. 22.

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