

Adam Pautz

1. The Plan

In his interesting paper, Barry defends “Extentionalism” about time consciousness over “Retentionalism”. One of the aims of his paper is to reply to some objections to Extensionalism made by Michael Pelczar.

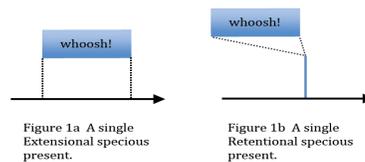
I agree with Barry that Pelczar’s objections against Extensionalism fall short, so I’ll ignore them. *Instead*: I will raise some questions about Barry’s claims about the rival Retentionalist view (§§2-5). Then I’ll raise some questions about Barry’s Extensionalism (§6).

2. A Potential Worry about the Debate

2.1 The Worry

But, to begin with, let me register a worry about the debate. Barry says that Retentionalism and Extensionalism count as *specious present views* on which the (basic) **contents** of experiences are “temporal extended” in the sense that they present or represent what happens within a certain temporal window – as it might be, *do followed by re* (or the ‘whoosh’ of a rocket – as in the figure below).

Barry says they only differ when it comes to the temporal properties of *experiences* themselves, which are special mental particulars (states?, events?). On **Retentionalism** (Husserl, Brentano, late Broad, Grush?, Strawson?), some experiences are “**momentary**” (**without duration!**), even if they carry temporally extended content. By contrast, on Barry’s **Extensionalism**, the experiences that carry the temporally extended contents are themselves always **temporally extended**.



But Barry doesn’t really explain how he understands ‘experiences’ and their ‘contents’.

I can understand what Barry *might* mean by a ‘content’. On **intentionalism** (Armstrong, Dretske, Tye, etc), the content of an experience

of the sound *do followed by re* is an abstract object - a proposition – representing *do followed by re* (so is “temporally extended” only in the sense that it represents a temporally extended process). By contrast, on **sense datum theory** (Barry?) and **naïve realism** (Michael Martin, John Campbell), the “content” (at least in the veridical case) is the (mental or physical) concrete sound itself, *do-followed-by-re*. (In fact, they proponents of such theories might prefer to work with an “**act-object distinction**” rather than an **experience-content distinction**.)

But, like Michael Hinton and Alex Byrne, I worry that the philosophical notion of an experience is a technical notion that is never adequately explained (also relevant are Farrell, Vendler, Thau). Granted in ordinary English we talk of “experiences”. But ordinary talk of one’s “experiences” is talk of what happened to one, what one did, what one encountered or witnessed (Vendler, Tye, Byrne). If I say my experience of *do* was before my experience of *re*, that just means I experienced *do* as before *re*. If I say I had many strange experiences today, that just means I experienced many strange things. In ordinary English, ‘experiences’ is not used as philosophers use it - to pick out some alleged internal mental events. *If this is right, then when philosophers use ‘experiences’ they are using it in a quasi-technical sense. This means: Philosophers’ debates about the temporal features of “experiences” are without content until they stipulate what then mean by ‘experiences’.*

For instance, consider an instance of the sort issue Barry addresses, the issue of how many visual experiences I have had today. The Extensionalist Michael Tye says **One** (well, not quite bc it’s not over yet). Barry, who defends a different kind of Extensionalism, says **a whole lot**. Barry says that Retentionalists say **infinitely many** (*perhaps an uncountable infinity!*) – *as it might be, one for every instant and point in my visual field!* My worry is that these issues are not merely **hard** (as Barry says), or **indeterminate** (like the issue of how many clouds are in the sky), but that they **have no clear content** – until these philosophers say more about what they mean by their quasi-technical term ‘experiences’.

I can think of a few ways of doing this.

1. Introspective Conception First, we might think we can attend to various mental events and processes which make up the stream of consciousness, for instance the event of *do followed by re*. Then we can just stipulate that ‘experiences’ refer to these. In fact, Barry himself often writes as if *sounds* are experiences; and one point, he presupposes that experiences are little *colored items* (p. 10).

But this is to confuse experiences with their objects. The sound-event ‘do’ is the **object of one’s experience**; it’s **not one’s experience** (indeed, setting aside sense datum theory, the ostensible sound-event *doesn’t exist* when one has a *hallucinatory* experience of ‘do’). Proponents of **transparency observation** (Moore, Farrell, Armstrong, Harman) will say that we can *only* attend to such objects of our experiences. (Barry might disagree since he is a sense datum theorist who *rejects the experience-object distinction*: he often seems to identify experiences with colored patches, etc.) If so, we cannot define ‘experiences’ introspectively by ostension.

Incidentally, it also would follow from transparency that there is no easy introspective argument for the common claim that experiences are “essentially extended, unfolding processes” as on Barry’s Extensionalism: granted the objects of experiences are often processes – motions, etc. - but this does not show that experiences themselves are.

2. **The Neural-Token Conception.** Secondly, if we accept intentionalism, we might be able to make sense of the notion of a neural content-vehicle (a neural pattern-type that represents a certain content). And we might stipulate that “an experience” is the instantiation in the brain of such a neural content-vehicle. This is a fairly standard conception (Dretske, Tye, etc.).

3. **The Property-Instantiation Conception.** Finally, we might suppose that we have a grip on certain kinds of ‘experience properties’ (seeing movement, having an experience of movement), and we might stipulate that ‘experiences’ is to refer to instantiations of certain experience properties (in that case, on some views, they might not be in the brain but ‘reach out into the world’ in some sense).

I wonder: which of these conceptions of experiences and contents does Barry have in mind, if any? This seemed to me to matter to the debates Barry’s engaged in.

2.2 Two Additional Preliminary Points

First, one might think we can just rule out apriori that the Retentionalist claim that your experience of *do followed by re* literally takes up no time. At one point, Barry seems to think so. He says “An auditory sensation [experience?] which is entirely lacking in duration seems inconceivable” (p. 8).

Some will say this is too fast. Maybe **tones** we experience necessarily have duration. And maybe the **contents** of experiences are necessarily extended (an instance of what Pelczar and Dainton call **subjective**

dynamism: a thesis about the *contents* of experiences, not about experiences). But this does not mean that **experiences** themselves are necessarily extended.

But elsewhere in the paper Barry says that Retentionalism **cannot** be ruled out apriori. I think that this is his true view. Here is an analogy or model for understanding Retentionalism (one Barry himself uses elsewhere: 2010). An **instantaneous flash of the sentence** “*Do* is being followed by *Re*” might **carry temporal information**. So maybe our experiences can likewise be instantaneous and yet carry temporal information.

My *second* preliminary point is that ‘Retentionalism’ might not be the best name for the view Barry has in mind. It suggests Husserl’s view that a momentary experience of change divides into two parts: a perception of the present and a retention or memory. But, while this might be the most familiar version of Retentionalism, it is not an essential part of Retentionalism as Barry formulates it in **this** paper (which is all to the good because it is not very plausible). Consider again the analogy above. An the instantaneous occurrence of the sentence “*Do* is being followed by *Re*” carries temporal information. But it doesn’t break up into two parts, one of which representing how things are now and the other of which representing how they just were. For all Barry has said, the Retentionalist might say that our experiences of change are similar. (So, somewhat confusingly, what Barry calls **Retentionalism** seems equivalent to what others call **Content Extensionalism**.)

3. What Barry Says About the Motivation for Retentionalism

Now, even if Retentionalism can’t be ruled out apriori, we need some reason to take it seriously. Why suppose that your experience of *do followed by re* literally takes up no time? In his paper Barry writes:

The Retentional approach would almost certainly be vindicated [as against the Extensional approach] if some of the more extreme versions of Presentism turn out to be true [viz. the strictly durationless version that might be motivated by e. g. the puzzle of temporary intrinsics – A. P.] —our temporal experience cannot have temporal extension if the universe itself is strictly momentary. (p.5)

Elsewhere: Our immediate experience cannot extend through time if [presentivism is true and] time itself has no extension (his SEP article).

The Presentist Argument for Retentionalism and Against Extensionalism?

- 1 Presentism is true (“time has no extension”).
 - 2 If Presentism is true, then in general *there is nothing* that extends through time (either by occupying or unfolding through time – like events and processes – or by persisting through time); the only things that exist are momentary ‘time slices’. (Barry says that if Presentism is true, then our *experiences* cannot extend through time, but presumably this is an instance of a more general claim.)
 - 3 So if presentism is true, then in particular our *experiences* cannot extend through time - Extensionalism is false and Retentionalism is true
- C. Extensionalism is false and Retentionalism is true.

Barry says that, although this argument provides some reason to take Retentionalism seriously, it is not overwhelming, because Presentism is “controversial”. I take a much more dim view of this argument. Presentism is not at all incompatible with the existence of temporally extended items. For instance, *presentists will of course agree that temporally extended entities like electrons exist!* (Indeed they usually say that they are wholly present at different times and, contrary to premise 2 as stated here, *reject* time slices – I think premise 2 involves a serious misunderstanding of Presentism.) They can also recognize the existence of unfolding events and processes that intuitively have temporal parts. (In fact, Presentists might be able to agree with Eternalists and Growing Blockers on the truth-values of **all** ordinary claims: they just provide them with different “truth-makers”.) So even if Presentism is true, all experiences might take up time, in accordance with Extensionalism and against Retentionalism; Presentism, even if true, would not provide an argument for accepting Retentionalism over Extensionalism.

Of course, Presentism is incompatible with a **version** of Extensionalism which insists that at a particular time the different temporal parts of an experience (e. g. the experience of do and the experience of re) exist. Barry seems to endorse this kind Extensionalism, which we might call **spanning Extensionalism**. He says:

if earlier and later stream-phases are experienced *together* then it seems very plausible to suppose that these phases must both exist (SEP).

But my main point remains: even if Presentism is incompatible with one particular **version** of Extensionalism, the simple fact is that Presentism is not incompatible with the basic Extensionalist claim that **all experiences of change take up time**, and does not establish Retentionalism.

Also I don't understand Barry's argument here for spanning Extensionalism. The argument is that "earlier and later stream-phases are experienced *together*". I guess by 'stream-phases' he means experiences. But we don't experience experiences! We experience sounds, and objects, and so on.

Maybe then Barry could argue for spanning Extensionalism on the grounds that we experience the **sounds** *do* and *re* together, so that both must exist – a kind of cross-temporal version of Price's famous intuition about the red patch. But, absent some kind of sense datum theory, hallucination shows that intuitions like this are not to be trusted.

4. Barry's Simplicity and Fragmentation Arguments Against Retentionalism and for Extensionalism: What are They?

So Barry takes Retentionalism seriously because (unlike me) he thinks that it might be motivated by Presentism. Yet in his paper Barry rejects it on the basis of two arguments. First, he briefly presents a **simplicity argument**. He writes:

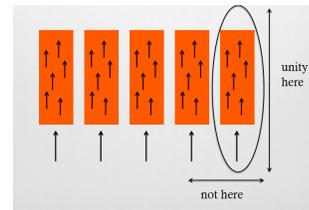
Retentional models ... involve the postulation of additional exotic new [temporal] dimensions and properties [in the manner of superstring theory]. [Here is mentions C. D. Broad 1959, who was a Dualist.] So if the Extensional approach is viable, why take the Retentional approach seriously? (p. 5)

One might think that Barry is here repeating what he elsewhere calls the *problem of surplus contents*. But this doesn't not jive with his talk of exotic new "dimensions" and "properties". He is saying that Retentionalism is somehow ontologically profligate.

But I wonder what Barry means by exotic new “dimensions” and “properties”. (I looked up Broad 1959 but must confess I didn’t understand it.) Maybe he thinks Retentionalism requires **Dualism**. But I don’t myself see why Retentionalism **must** be ontologically more profigate than Extensionalism. In fact, I don’t see why the Retentionalist couldn’t accept **reductive physicalism** just as an Extensionalist can. (The dispute between the physicalist-Retentionalist and the physicalist-Extensionalist would just be a kind of semantic dispute about what in their shared physicalist ontology terms or concepts like ‘experience of do-re’ refer to.) Consider the analogy above. An instantaneous occurrence of the sentence ‘*Do* is followed by *Re*’ might carry temporal content. This doesn’t require “exotic new dimensions and properties”.

Barry’s main argument against Retentionalism is the fragmentation argument. Here’s what he says:

The defining feature of the Retentional approach is the doctrine that phenomenal unity—or equivalently in this context, diachronic co-consciousness—is confined to contents that in objective terms are momentary and simultaneous. As a result, it is impossible for contents in distinct but neighbouring specious presents to be directly phenomenally unified. The Retentionalist’s confinement of diachronic co-consciousness inevitably fragments our streams of consciousness—for, in effect, each specious present is an entirely discrete episode of experiencing in its own right. How could it be otherwise? Given the total absence of direct phenomenal connections between neighbouring stream-phases, this fragmentation is inevitable (p. 18) the character of the experience of a subject (to whom the Retentional theory applies) is very probably quite different from anything we can imagine. Of one thing we can be reasonably sure: the experience of such a subject would be quite unlike *our* experience. (p21)



Let me just make a few remarks on this argument.

(i) Can Barry be sure that Retentionalism would entail that our experiences are more fragmented than they in fact are, if he admits to

having no idea what fragmentation would be like? It's worth mentioning here that Galen Strawson thinks his experiences **are actually fragmented!** It seems like there's a lack of clarity about what fragmentation would come to.

(ii) The claim that our experiences are fragmented in a way that can be ruled out by simple introspection is of course not an explicit part of the Retentionalist's theory! Barry needs to derive that phenomenological consequence from what the Retentionalist explicitly does say. To do this, he needs some kind of bridge principles going from the metaphysical claims made by the Retentionalist to phenomenological claims. Couldn't the Retentionalist just reply to Barry's argument by rejecting those 'bridge principles'?

(iii) Alternatively, the Retentionalist might reply to Barry's fragmentation argument in this way: "My theory is that the property of having a **non-fragmented** experience of *do* then *re* then *mi* is identical with undergoing so and so sequence of momentary experiences (having a momentary experience of *do-re*, a momentary experience of *re-mi*, etc.). Now I say that you have the relevant sequence of momentary experiences. So my theory trivially predicts that you have a non-fragmented experience of *do* followed by *re* followed by *mi*. Where's the false prediction?"

Maybe Barry's point is best put like this. It is just apriori very implausible that having a non-fragmented experience of change is identical with what the Retentionalist says it is identical with.

Let me make a final point about Barry's fragmentation argument. Barry says "the experience of a subject [of whom Retentionalism is the correct theory] would be quite unlike *our* experience". This suggests that Barry accepts **Contingentism** about the metaphysics of temporal experience: he seems to be saying that Retentionalism is in fact false but it could have been true. It is just that then our experiences would have been radically different from how they in fact are, so we know Retentionalism is false in the actual world. This is the point of the fragmentation argument.

But this goes against what Barry says elsewhere in the paper. Elsewhere in the paper Barry advocates a version of Extensionalism on which experiences of change are **necessarily** extended through time. If so, then there is no possible subject of whom Retentionalism is true – whose experiences of change are strictly momentary. So I am not quite sure I understand the structure of Barry's fragmentation argument. Maybe he's saying the counterfactual 'if Retentionalism were true our

experiences would be fragmented' is (non-vacuously) true even though its antecedent is **necessarily false**; but this might need some explaining.

5. Simpler Arguments Against Retentionalism?

So I'm not quite sure about Barry's arguments against Retentionalism. But I'd like to briefly mention some other, very simple arguments against Retentionalism that make me wonder whether it is a serious contender.

5.1 Argument 1: On any version of naturalism (the spatio-temporal realm is all that there is), and any conception of experience, experiences take time, just because neural processes do.

Suppose we adopt the neural-token conception of experiences. We stipulate that 'the experience of do then re' refers to the instantiation of the relevant neural state that carries the temporal content *do followed by re*. We know enough to know that the neural states that carry temporal content are **temporal patterns** of neuronal firing (e. g. firing rates in MT or whatever). So, given the neural-token conception of experiences, we know that experiences with temporal contents themselves have duration. This goes against Retentionalism, which says that experiences are **strictly momentary**.

It is true that on a temporal parts ontology any neural event or process has instantaneous temporal parts. But, on the neural-token conception of experiences, those instantaneous parts are **not experiences**, because they are not instantiations of neural states that are big enough to carry any information. Compare an instantaneous temporal part of an auditory stream of the sentence 'do is followed by re'.

Suppose, on other hand, that we adopt the property-instantiation conception of experiences. The way temporal information is encoded in the brain means that properties like **experiencing movement from A to B** take time to be instantiated. So, on this conception, too, experiences of change take up time.

Now Barry says that we don't know enough about the relationship between the phenomenal and the physical to rule out the Retentionalist's claim that experiences with temporal content are themselves strictly momentary (p. 4). But I think we do. As far as I can see, the only way to accommodate this claim given the physical facts is to accept some kind of serious dualism on which experiences of change are momentary even though their neural correlates take up time. Maybe this

is what Barry had in mind when he said that Retentionalism requires a two-dimensional theory of time. But I am not sure that such a version of dualism is a live option.

5.2 Argument 2: On any naïve realist or sense datum theory, experiences of change trivially take time.

It's also worth pointing out that, on a sense datum theory or naïve realism (Martin, Campbell), the falsity of Retentionalism can be ruled out even more quickly. If we accept such a view, and if we adopt the property-instantiation conception of experiences, then we'll hold that experiences of change are instantiations of properties like *seeing the process of A moving from place 1 to place 2*. These property-instantiations are trivially temporally extended, because they involve *participants* which are temporally extended (namely, changes in sense data or physical objects).

C. D. Broad at one point adopted a Retentionalist view on which **acts** of sensing sense data can be momentary, even though they apprehend temporally extended processes concerning sense data within a specious present. I'm not sure what he meant by 'acts'; but, if he meant instantiations of properties like **seeing movement**, then my present point is that I do not see how Broad's view was coherent.

5.3 Could the Retentionalist Just Reject Momentary Retentionalism Escape to "Really Short" Retentionalism?

Now Barry's official formulation of Retentionalism is that experiences of change are themselves **literally instantaneous or without duration**. We might call this Momentary Retentionalism. But sometimes he adds that Retentionalism holds that "experiences of change are instantaneous (or **close to it**)". We might call the 'close to instantaneous' version "Really Short Retentionalism". Really Short Retentionalism is not ruled out by the simple considerations I just mentioned.

But I have three points about Really Short Retentionalism. First, it's very vague – what does "close to momentary" mean? Second, Really Short Retentionalism appears to just be a version of Extensionalism, as Barry formulates Extensionalism. Third, it's not motivated by the kind of arguments that Barry thinks motivate Retentionalism: for instance, the Argument from Presentism that I criticized above. (It's also not motivated by the two other arguments for Retentionalism from common

sense and Russell worlds that Barry discusses elsewhere (SEP) and that I also think are weak for reasons I won't go into.)

To sum up: Barry takes the Retentionalist view that experiences of change are themselves strictly momentary very seriously, and thinks that it can be motivated by Presentism. But – although I may be missing something - I'm inclined to think it can't be motivated by Presentism, and that it is not really a serious contender.

6 Three Comments about Barry's Version of Extensionalism

Barry's version of Extensionalism adds to the basic Extensionalist picture the following two claims: first, "phenomenal continua [experiences?] are **essentially** extended" and, second, "they do not contain momentary parts" (p. 9, 15).

Comment 1: My first comment is this. Believers in instantaneous temporal parts believe, on the basis of general metaphysical considerations, that every temporal phenomenon has momentary parts. (Four-dimensionalists and even some *three*-dimensionalists believe this – see Hawthorne '4d vs 3d'.) I wonder whether, in saying that "experiences do not contain momentary" parts, Barry meant to rule that theory out (see his remarks on p. 10 about the difference with the flying arrow). That would be a controversial commitment.

I think Barry *could* take a more neutral view. Although Barry says that his claim that experiences are essentially extended **entails** that they have no momentary parts (p. 15), I think this is not so. Barry could say that experiences are essentially extended and yet say that experiences *do* have momentary parts. If experiences are physical processes such as neural processes, these will be momentary temporal parts of physical processes. This would be compatible with his claim that experiences are essentially extended, provided that these momentary temporal parts **don't themselves count as experiences**. (Analogy: one might say that the spoken words 'do is being followed by re' have strictly momentary temporal parts; but those instantaneous temporal parts are not themselves **representations**.) *This more metaphysically-neutral version of Barry's would be enough to answer Pelczar's arguments.*

Comment 2: My second comment is this. Another common metaphysical claim made by four-dimensionalists, which goes beyond belief in instantaneous temporal parts (as Hawthorne *ibid.* points out), is that instantaneous items are somehow more fundamental than temporally

extended items, and that the intrinsic properties of instantaneous items are the fundamental properties of the concrete world. Call this the **fundamentality of the small**.

Barry's claim that **experiences are essentially extended** is **consistent with** the fundamentality of the small. For he *could* hold that essentially extended experiences consist of instantaneous temporal parts, as we have just seen; and he *could* hold in addition that these instantaneous temporal parts are **more fundamental** than experiences, as on standard four-dimensionalism. To square this with his view the experiences are essentially extended, he would just have to say that these instantaneous temporal parts are not themselves experiences. (Consider an analogy with movements: movements are essentially temporally extended but, on a four-dimensionalist, at-at theory of movement, they are built up out of more fundamental instantaneous items that are not movements.)

But maybe Barry wanted to **reject** the fundamentality of the small. Maybe he wanted to say that experiences provide a counterexample to this commitment of standard four-dimensionalist metaphysics (though they might be consistent with other commitments, for instance Eternism). This was not clear from his paper (but see his remarks on p. 10 about the difference with the flying arrow). However, this would be a serious metaphysical commitment which is not obviously supported by anything he argues for in the paper: in particular, it does not follow merely from his claim that experiences are essentially extended, which Barry thinks is required to answer Pelczar's arguments.

Question 3: My third and final comment is this. Let **Weak Extensionalism** be a version of Extensionalism that says that experiences are **temporally extended at least in the actual world**. Previously we saw that Weak Extensionalism appears to be supported by humdrum considerations about the physical basis of consciousness in the actual world. But Barry defends **Strong Extensionalism**: a version of Extensionalism that say that experiences of change are **essentially extended**. I have some doubts about Strong Extensionalism.

In general, there is no reason to expect that that sorts of properties **represented by** our experiences are **possessed by** our experiences. Our experiences represent colors but are not colored. So we have some reason to doubt the claim of Barry's Strong Extensionalism that experiences of temporal properties **must** themselves have temporal properties.

One might reply that it is different with temporal properties. Our experiences **do actually possess** temporal properties, in addition to representing them. So maybe in this one case there is some reason to expect some kind of match up. But, on some physicalist views, experiences possess **spatial properties**, as well as representing spatial properties: for experiences have locations in the brain and stand in spatial relations. And those who take this view don't expect there to be a match between the spatial properties represented by experiences and the spatial properties possessed by experiences.

The potential problem I have in mind for Strong Extensionalism can be made vivid by considering the question of whether there are possible **Retention-worlds**: worlds at which **some** of our experiences of change are themselves instantaneous as on Retentionalism. True, in the actual world, our experiences of change are arguably temporally extended because it is temporally extended neural patterns that carry temporal information. But perhaps this is only contingent. (If Barry is right in such a Retention world our experiences would be 'fragmented'; but even if he is right about this, it would not make such worlds impossible.)

An extreme Retention world would be a **Russell world**: for instance, a world at which everything only exists for an instant, and there are no past tense or future tense truths, but someone has a single solitary experience of *do followed by re*, and then goes out of existence forever (see Phillips 'Perceiving Temporal Properties'). (Btw, I think his introspective temporal judgment "my experience of do happens before my experience of re" – if he has time to form it! – would be *true*, even though he lives in a Russell world, because it only requires that he experiences *re as happening after do*.)

Now, on Barry's Strong Extensionalism, Retention worlds are **impossible**. But this cannot plausibly be taken to be a **brute impossibility**. *If it is impossible, one wants an explanation of why it is impossible, derived from more general truths about experiences and their physical basis. I think that if Strong Extensionalism some explanation must be provided.* ("Experiences are essentially extended" doesn't count.) The trouble is that such an explanation would not appear to be forthcoming. Given standard theories of experience, such Retention worlds appear to be genuine possibilities.

For instance, consider **intentionalism**. I don't know of any theory of intentionality which forbids instantaneous states (e. g. instantaneous occurrences of spatial structures like written sentences) from carry-

ing temporal information. Maybe there are possible worlds in which things like instantaneous sentence-like structures in the brain carry temporal information (or maybe instantaneous values of variable magnitudes). So, on intentionalism, Retention worlds would appear to be possible. (Indeed, even on a *nomic* theory of intentionality, *Russell worlds* might be possible, provided a non-Humean theory of nomic facts is true.)

Next consider **naïve realism**. On this view, having an experience of *do* followed by *re* is *either really hearing do followed by re or else being in a state that is indiscriminable by reflection from that*. Maybe, given the argument I gave above, **veridical** experiences of *do followed by re* take up time, because they are relations to sounds that take up time. But, on naïve realism, I see no reason why a **hallucinatory** experience of *do followed by re* could not be instantaneous. That would be so if being in an instantaneous brain state could be indiscriminable by reflection for hearing *do* followed by *re*. And why should that not be possible?

Of course, on a **sense datum theory** (especially one like Barry's that rejects the act-object distinction), we can explain why Retention worlds are impossible, so there is no problem for Strong Extensionalism. Experiences of change **necessarily** take time because they involve actually changing sense data. Barry himself defends the sense datum theory. But I think those of us who reject the sense datum theory have some reason to be skeptical of his Strong Extensionalism (even if we're happy with Weak Extensionalism).

(I would also be dubious of the matching thesis, the thesis that the time order of experiences matches the apparent time order of the objects of experiences (Phillips, 'Perceiving Temporal Properties') – a thesis that *might* be a commitment of Barry's brand of Extensionalism. If I experience a man sneezing and, without losing consciousness, undergo time travel and experience a dinosaur growling, then in real time my experience of the dinosaur growling came before my experience of the man sneezing, but the dinosaur growling appeared to me to come after the man sneezing. Of course, the proponent of the matching thesis might respond that this is no counterexample. For he might say that my experience of the dinosaur growling was *after* my experience of the man sneezing, *in the sense that* the growling appeared to me to come after the sneezing. *But now it looks as if for the proponent of the matching thesis talk of the time order of experiences is just disguised talk of the apparent time order of the objects of experience. In that case, the matching thesis is*

of course true; but it is analytic and compatible with every theory of time consciousness.)