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The Unity of Consciousness and the Ontology
of Mind

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A thesis submitted in partial fulfilment of the
requirements for the degree of Doctor of Philosophy in
Philosophy

Department of Philosophy, University of Warwick

August 2010

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Acknowledgements:

Many thanks to Matt Soteriou and Christoph Hoerl for all of their help in
supervising this thesis

Abstract

This thesis concerns the unity of consciousness – in particular the *phenomenal* unity of consciousness. The idea that consciousness is ‘phenomenally unified’ is the idea that if we attempt to characterise ‘what it is like’ for a subject just by listing all of the distinct experiences had by that subject at and over time, we will leave something out. We will leave out the *unity* of those experiences – the way in which those experiences feature *together* in consciousness.

We can distinguish between the unity of consciousness *at* a time, and the unity of consciousness *over* time. I do not attempt to provide an account of the unity of consciousness at a time here – I focus instead upon the issue of unity *over* time. Some theorists – Dainton and Tye for instance – have claimed that it is possible to provide a single account of unity that solves both problems of unity in the same way. My contribution to the issue of unity *at* a time shall be to argue that such a single account is *not* possible, due to important differences in the phenomenological constraints that apply to the two problems.

I proceed by providing an account of what exactly the constraints on an account of unity over time are, and argue that accounts that commit to the ‘Principle of Simultaneous Awareness’ (the accounts of Le Poidevin, Tye, Husserl, and Broad) cannot meet these constraints. I then provide a diagnosis of what may have been driving acceptance of such a principle in the first place – I argue that driving such acceptance is a failure to identify the metaphysical category of ‘Occurrent State’. I

propose that we can provide a successful and substantive account of diachronic unity only if we commit to thinking of a subject's phenomenal states as *Occurrent States*.

Chapter One: Introduction to the Diachronic and the Synchronic Unity of Consciousness

§1. Overview

The subject matter of this thesis is the unity of consciousness – specifically, the *phenomenal* unity of consciousness. The object of investigation for a theory of the *phenomenal* unity of consciousness is phenomenal consciousness itself. More precisely, it is the phenomenal consciousness of an individual both at a time, and over time. Phenomenal consciousness is the kind of consciousness which an individual has when there is ‘something that it is like’ for them. Here are Bayne and Chalmers providing a description of what is meant by phenomenal consciousness:

A mental state is phenomenally conscious when there is something it is like to be in that state. When a state is phenomenally conscious, being in that state involves some sort of subjective experience. There is something it is like for me to see the red book – I have a visual experience of the book – so my perception of the book is phenomenally conscious. There is something it is like to hear the bird singing, and to feel the pain in my shoulder, so these states are phenomenally conscious. There is something it is like to feel melancholy, and there is arguably something it is like when I think about philosophy. If so, then these states are phenomenally conscious.¹

¹ T. Bayne and D. Chalmers, “What is the unity of consciousness,” *The unity of consciousness: Binding, integration, and dissociation* (2003): 7.

An investigation into the phenomenal unity of consciousness is a phenomenological investigation that concerns a particular aspect of phenomenal consciousness: the *unity* of phenomenal consciousness. The thought driving such an investigation is that just as there is 'something it is like' for a subject to experience a pain, a red book, or a loud noise, there is also something that it like for a subject's consciousness to be *unified*.

This investigation into phenomenal unity is traditionally divided up into two parts: giving an account of the phenomenal unity of consciousness at a time (synchronic phenomenal unity); and giving an account of the phenomenal unity of consciousness over time (diachronic phenomenal unity). We can get an intuitive idea of why there is thought to be a puzzle about both diachronic and synchronic unity by examining the following two slogans:

Slogan One: 'A conjunction of experiences is not, in itself, an experience of conjunction.'

Slogan Two: 'A succession of experiences is not, in itself, an experience of succession.'

These two different slogans correspond to two different questions we can ask about the unity of consciousness: the first slogan corresponds to the *synchronic* unity question, and the second to the *diachronic* unity question. In both cases, the idea is that attempting to characterise 'what it is like' for the subject of experience just in

terms of the resources picked out by the first sections of the slogans (conjunction/succession of experiences) will fail to capture the phenomenology picked out by the second sections of the slogans (experience of conjunction/succession).

The slogans are not merely drawing to our attention a distinction between what is picked out by their first and their second sections. Rather, both are claims that we cannot provide an explanation of an experience of conjunction or succession just in terms of a conjunction or succession of experiences: the occurrence/existence of items picked out in the first section does not suffice for the occurrence/existence of items picked out in the second. Accounting for the difference between a conjunction or succession of experiences and the experience of conjunction or succession is the business of an account of the phenomenal unity of consciousness. I shall talk more about how we ought to think of this difference shortly.

We can call whatever it is that is lacking from what is picked out by the first section of the relevant slogan that renders it insufficient for the occurrence of what is picked out by the second section of the slogan the 'unity' of consciousness. Setting up the diachronic and synchronic problems in this way – where there is a structural similarity between the two problems, with 'unity' being the thing that needs to be accounted for, has led some theorists to attempt to provide a generalised account of the unity of consciousness – an account intended to solve both problems in the same way. The theorists I have in mind here are Barry Dainton and Michael Tye.

Dainton has suggested that positing a primitive phenomenal relation called 'co-consciousness' is the key to accounting for phenomenal unity, and has claimed that "the diachronic unity of experience is no different, in the essentials, from the synchronic: both are the product of co-consciousness."² Tye, on the other hand, attempts to *dissolve* both problems, suggesting that both problems go away if we agree to think that the subject only has *one experience* per period of unbroken consciousness – thus doing away with the items picked out by the first section of both slogans entirely. By ruling out the possibility of a subject having multiple experiences at or over time, Tye rules out a formulation of the initial puzzle. Tye has claimed "the problem [of diachronic unity], posed in this way [in terms of multiple experiences], is no more real than the problem of the unity of experiences at a time."³ For Tye and Dainton the solution to both problems is the same in both cases: we either account for 'unity' by appeal to 'co-consciousness' (Dainton), or deny there is a problem in the first place by claiming that there is only one experience at and over time (Tye).

I shall discuss the views of Tye and Dainton in more detail shortly, but I want to note that I shall be arguing against the notion that we can provide a generalised account of the unity of consciousness. When the synchronic and diachronic problems are examined in more detail, it transpires that there is a more complex set of constraints present in the diachronic case, and this additional complexity makes it impossible to give a successful account of unity that applies to both cases. This argument shall be

² B. Dainton, *Stream of Consciousness: Unity and Continuity in Conscious Experience*, 2nd ed. (Routledge, 2006), 113.

³ M. Tye, *Consciousness and persons* (MIT Press Cambridge, Mass, 2003), 95.

my main contribution to the issue of synchronic unity – I shall not, in what follows, attempt to provide an account of the synchronic unity of consciousness. I shall, however, provide an account of diachronic unity. These two elements – arguing against a generalised account of unity, and providing an account of diachronic unity – comprise the main project of the thesis.

The thesis unfolds as follows: this first chapter is used to set up the synchronic and diachronic problems – and to introduce the idea that the set of phenomenological constraints in the diachronic case are more complex than those in the synchronic case. In the second and third chapters I discuss these diachronic constraints in more detail – the second chapter concerns the *continuity* of consciousness, and the third concerns a claim I call the ‘Time-Windows’ claim. These constraints are used to diagnose the various ways in which rival theories of diachronic continuity fail to adequately account for the phenomenology, as well as to make it clear what needs to be accounted for. In chapters four to six I discuss in detail the phenomenological inadequacies of rival accounts – the accounts of Le Poidevin, Zahavi, Husserl, Tye, Dainton and Foster. In chapter seven I provide my positive account of diachronic unity – an account that succeeds in giving an adequate account of the phenomenology of diachronic unity. In the final chapter, I return to the issue of synchronic unity, discussing the accounts of Dainton, Tye, and Bayne in more detail, and conclude that the more complex constraints in the diachronic case render a generalised account of unity impossible.

§2. Motivating the Synchronic Unity Problem

Before beginning this project, however, we need to get clearer on precisely what the diachronic and synchronic problems *are*. At this stage in proceedings, we only have the two slogans mentioned above, and the idea that an account of synchronic or diachronic unity will provide an account of what it is that is lacking from the first section of the relevant slogan. What we don't yet have is any reason for finding the slogans persuasive: we don't yet have a grasp of what it is that the first sections of the slogans leave unaccounted for. We can call whatever the difference consists in in each case the 'unity' of consciousness, but what exactly *is* the difference being drawn to our attention?

We can begin to answer this question by examining the synchronic slogan: 'A conjunction of experiences is not, in itself, an experience of conjunction'. There are a number of different ways of motivating this slogan – all of which raise the possibility of scepticism about synchronic unity. I shall discuss three such sources of motivation, and the corresponding sceptical responses. I shall conclude that the sceptical worries don't appear to be decisive, and so we can plausibly still motivate some form of synchronic unity problem.

§2.1: The Phenomenology

The first way of motivating the synchronic unity problem (which is the same thing as motivating the synchronic unity slogan) involves simply attending to the phenomenology. The thought here is that we can locate the element missed out by attempting to capture the phenomenology in terms of a conjunction of experiences (as opposed to an experience of conjunction) by *attending* to it when we introspect. All of the synchronic unity theorists whose views I discuss – Tye, Dainton, and Tim Bayne – make some attempt to motivate the synchronic unity problem in this way. All three provide descriptions of the relevant phenomenology in an attempt to draw it to our attention:

The air was heavy, there were sounds of birds calling to one another, bees buzzing around nearby flowers, the smell of damp grass, a profusion of colours. What struck me with great intensity was the unity in my experience, the way in which my experience presented all these things to me *together*.⁴

In talking of the 'experienced relationship' between the contents of consciousness I am not referring to anything mysterious or unfamiliar. To illustrate: look at your hand and snap your fingers. What happens? You see and feel a movement and hear a sound. These three experiences – one auditory, one visual and one tactile – do not

⁴ Ibid., xii.

occur in isolation from one another. They occur together in your consciousness, you are aware of them all at once (along with a good deal else).⁵

At any given time, a subject has a multiplicity of conscious experiences. A subject might simultaneously have visual experiences of a red book and a green tree, auditory experiences of birds singing, bodily sensations of a faint hunger and a sharp pain in the shoulder, the emotional experience of a certain melancholy, while having a stream of conscious thoughts about the nature of reality. These experiences are distinct from each other: a subject could experience the red book without the singing birds, and could experience the singing birds without the red book. But at the same time, the experiences seem to be tied together in a deep way. They seem to be *unified*, by being aspects of a single encompassing state of consciousness.⁶

These are the initial attempts to point us in the direction of the phenomenon of the unity of consciousness provided by Tye, Dainton, and Bayne and Chalmers. It seems clear that there is something in common being described by all of their descriptions, but it also seems clear that *different* things are being drawn to our attention. Tye notes how 'experience presents all these things together' - and has also noted how "it is phenomenologically as if I were undergoing one [experience]."⁷ Dainton notes that there are 'experienced relationships' between the contents of consciousness, and Bayne and Chalmers note that 'experiences seem to be tied together in a deep way... they seem to be aspects of a single encompassing state of consciousness.'

⁵ Dainton, *Stream of Consciousness*, xi.

⁶ Bayne and Chalmers, "What is the unity of consciousness," 23.

⁷ Tye, *Consciousness and persons*, 17-8.

The nature of the positive characterisations provided by Dainton, Bayne and Chalmers, and Tye, are related to their formulations of the *problem* of the unity of consciousness. Having noted that 'experience presents all these things together', Tye describes the problem as a matter of describing the relation "between qualities *represented* in experience, not between qualities *of* experiences."⁸

Dainton, having described an 'experienced relationship', describes the problem as providing an answer to the following question: "when experiences are co-conscious, what is the nature of this relationship, what can be said about this purely experiential phenomenon?"⁹

Finally, Bayne and Chalmers, having noticed that 'experiences seem to be tied together in a deep way... they seem to be aspects of a single encompassing state of consciousness', describe the problem as answering *this* question: "what does it mean to say that different states of consciousness are unified with each other, or that they are part of a single encompassing state?"¹⁰

These differences in characterisation of the phenomenology – and the corresponding differences in how the problem of synchronic unity is formulated – suffice to provide

⁸ Ibid., 36.

⁹ Dainton, *Stream of Consciousness*, 4.

¹⁰ Bayne and Chalmers, "What is the unity of consciousness," 23.

grounds for scepticism about there really being such a thing as 'the synchronic unity of consciousness'. Recall that at this stage of the dialectic we have a slogan: 'A conjunction of experiences is not, in itself, an experience of conjunction', but we might not yet be convinced that there is any reason for us to accept the slogan – we have no grip upon what it is that would be left out were we to attempt to characterise what it is like for the subject merely in terms of a conjunction of experiences.

The sceptic's challenge is that without an independent grip upon what would be left out by such a characterisation, the synchronic unity slogan, as well as Bayne, Tye, and Dainton's accounts of synchronic unity, are left unmotivated. All three descriptions of the phenomenology that we are presented with are given using the terminology of the describer's *accounts* of unity. The sceptic's charge will thus be that such descriptions are precisely how we would *expect* synchronic unity theorists to describe the phenomenology, given their acceptance of the synchronic unity slogan and their accounts given in response to the slogan, but we still don't have an independent grip on where the inadequacy is supposed to lie.

In response to this challenge, the synchronic unity theorists might reply that the sceptic has failed to attend properly to the phenomenology of experience – hasn't attended properly to 'what it is like' for them. At this stage of the dialectic, we appear to have reached a stalemate – both sides will claim that they are attending, and they find unity (the theorists) or they cannot find unity (the sceptic).

A better response, then, might be to attempt a neutral formulation of the problem – perhaps just in terms of experiencing items ‘together’. To be fair to Tye, this might be what he is up to in his description of the phenomenology, which, to recap, was the following:

The air was heavy, there were sounds of birds calling to one another, bees buzzing around nearby flowers, the smell of damp grass, a profusion of colours. What struck me with great intensity was the unity in my experience, the way in which my experience presented all these things to me *together*.¹¹

How will the sceptic respond to Tye’s formulation of the problem here? In response to the description of the phenomenology – ‘experience presented all these things to me *together*’ – the sceptic will say that they can agree with the description, but that they can account for it by noting that all that is being picked out is that fact that the subject is having a large number of experiences *simultaneously*.

For the sceptic, the notion of ‘togetherness’ is exhausted by the notion of *simultaneity*. In Tye’s situation, neutrally interpreted, they will claim that the subject simultaneously has an experience of the birds, an experience of the bees, an experience of the grass, and so on. The sceptic will claim that it just isn’t clear that there is anything to ‘togetherness’ or ‘unity’ beyond this simultaneity. At this point, I propose that it isn’t clear what we should say in response to this disagreement about

¹¹ Tye, *Consciousness and persons*, xii.

the phenomenology – and that we ought to turn instead to another possible source of motivation for the synchronic slogan.

§2.2: Split-Brain Cases

The second source of motivation that we can examine concerns a number of experiments that are often referred to as the ‘split-brain cases’. The split-brain cases are taken to motivate the synchronic unity slogan because it looks likely that the phenomenology of experience is very different for a split-brain subject in certain circumstances than it would be for a non-split-brain subject in the same circumstances. This difference has been thought to be best captured by positing a lack of *unity* in the split-brain subject’s experience. This line of thought is discussed by Bayne and Chalmers:

It is widely held that patients in various unusual neuropsychological states have a disunified consciousness. The paradigm case here is that of a split-brain patient, whose corpus callosum has been severed for medical purposes, preventing the left and right hemispheres of the cerebral cortex from communicating directly (although there is still some connection through lower areas of the brain). Such a patient behaves in a surprisingly normal fashion much of the time, but in certain circumstances they behave quite unusually.¹²

¹² Bayne and Chalmers, “What is the unity of consciousness,” 18.

The split-brain patients behave normally in everyday situations, but in certain experimental conditions they do not. In the relevant experimental conditions, the subjects are presented with stimuli in such a way that information from the stimuli only directly reaches one brain hemisphere. Nagel describes some of the results of these kinds of experiment as follows:

What is flashed to the right half of the visual field, or felt unseen by the right hand, can be reported verbally. What is flashed to the left half field or felt by the left hand cannot be reported, though if the word 'hat' is flashed on the left, the left hand will retrieve a hat from a group of concealed objects if the person is told to pick out what he has seen. At the same time he will insist verbally that he saw nothing. Or, if two different words are flashed to the two half fields (e.g. 'pencil' and 'toothbrush') and the individual is told to retrieve the corresponding object from beneath a screen, with both hands, then the hands will search the collection of objects independently, the right hand picking up the pencil and discarding it while the left hand searches for it, and the left hand similarly rejecting the toothbrush which the right hand lights upon with satisfaction.¹³

In the experimental situations, then, the split-brain patients behave in a 'disunified' fashion as far as their actions are concerned. In response to the experimental situation they perform two different actions, with each action performed as if the subject is oblivious to the information playing a role in motivating and guiding the other action.

¹³ T. Nagel, "Brain bisection and the unity of consciousness," *Synthese* 22, no. 3 (1971): 400.

Plausibly, there are strong similarities between the experiences had by a split-brain subject and a non-split-brain subject: in the toothbrush and pencil situation, it looks as though the subject experiences both the toothbrush and the pencil, for the subject performs actions that appear to require such experiences – searching for the pencil, and searching for the toothbrush.

However, there are clearly also differences between the experiences of the split-brain subject and the non-split-brain subject. One plausible way to capture this difference is to say that while the split-brain subject has an experience of the toothbrush and an experience of the pencil, the subject *lacks* an experience of the toothbrush and the pencil *together*. If the subject had such an experience, runs the thought, then the subject would not perform the relevant actions in the way that she does – apparently searching for the toothbrush while unaware of the pencil, and simultaneously searching for the pencil while unaware of the toothbrush.

A number of different models of what is going on in this situation have been provided – I shall discuss some of them shortly. For now, we can note that, with the split-brains as our source of motivation for the synchronic unity slogan, providing an account of the unity of consciousness is the same thing as providing an account of the difference between ‘what it is like’ for the split-brain subjects, and ‘what it is like’ for non-split-brain subjects.

One sceptical challenge that has been provided in response to this setup is a challenge not about the existence of interesting and important differences between

the split-brain and non-split-brain subjects, but rather about this difference being a *phenomenal matter*. This kind of scepticism is provided by theorists that Bayne describes as 'objectivists'. Bayne suggests that there are two strategies for giving an account of 'co-consciousness' – where 'co-consciousness', like 'unity' picks out whatever the difference between 'a conjunction of experiences' and 'an experience of conjunction' consists in:

We can divide accounts of the unity of consciousness into two broad classes: 'objectivist' and 'subjectivist' accounts. Objectivists allow that co-consciousness can be at least partially accounted for in terms of factors that are not accessible from the first-person perspective, while subjectivists hold that co-consciousness can only be explained in terms of factors that are first-person accessible.¹⁴

The accounts of 'unity' or 'co-consciousness' that I am primarily interested in are the 'subjectivist' accounts – accounts that attempt to engage with a phenomenological question about unity by giving an account of what the additional phenomenal unifying element in consciousness is. However, it is worth providing a brief discussion of one possible reason for adopting the 'objectivist' approach – the reason in question being scepticism about the possibility of accounting for the difference between non-split-brain subjects and split-brain subjects in phenomenal terms.

¹⁴ T. Bayne, "Co-consciousness: Review of Barry Dainton's *Stream of Consciousness*," *Journal of Consciousness Studies* 8, no. 3 (2001): 81.

One thought seized upon by objectivists is that non-split-brain subjects have *no idea* what it is like for the split-brain subjects! Plausibly, the only way that we can even attempt to work out what it is like for the split-brain subjects is to try and *imagine* what it is like for them. Susan Hurley has exploited this thought in developing an argument in favour of an objectivist account of synchronic unity.

The setup of Hurley's argument involves a discussion of the subjectivist accounts of synchronic unity. As I noted above, objectivists don't want to claim that there is nothing to be said about synchronic phenomenal unity – they just think that an account of the difference between the split-brain and the non-split-brain subjects cannot be given in phenomenal terms. Hurley is arguing for the claim that an account of synchronic unity that applies to the 'hard cases' – such as the split-brain cases – cannot be given in terms of 'what it is like' for the subject.

In setting up her argument, Hurley introduces the terminology: 'co-conscious':

Some conscious states occupying the same stretch of time are together, while others are separate. While I talk to you, I see your face and hear my own voice. These experiences are together or united within one consciousness: they are co-conscious.¹⁵

¹⁵ S. Hurley, "Action, the unity of consciousness, and vehicle externalism," *The Unity of Consciousness: Binding, Integration, and Dissociation* (2003): 1.

In the case of synchronic unity, Hurley suggests, 'co-consciousness' is a *transitive* relation, and consciousness is always 'fully unified':

We normally assume that consciousness must be fully unified. What does this mean? We can use the intuitive idea of togetherness or co-consciousness to explain full unity. Full unity requires that if two conscious states are co-conscious at a time, then each is also co-conscious with all the states the other is at that time. That is, full unity requires that ... *is co-conscious and simultaneous with...* is a transitive relation between conscious states.¹⁶

Hurley suggests that we can conceive of another way that consciousness could be besides being fully unified – it could be *partially* unified. In this case, co-consciousness would not be a transitive relation:

In a partially unified consciousness, two states that are not co-conscious with each other can nevertheless both be co-conscious with the same third state.¹⁷

One suggestion that is sometimes made about the split-brain cases is that they are cases of partial unity – so in the toothbrush and pencil case discussed above, the suggestion is that the experiences of the toothbrush and pencil are not unified with the rest of the subject's experiences at a time. Hurley argues that the subjectivist

¹⁶ Ibid.

¹⁷ Ibid.

approach doesn't allow us to distinguish between partial unity, and what she calls 'duplication'. To imagine 'duplication', Hurley claims, is not to imagine partial unity:

It is easy to imagine what it is like to have co-conscious experiences with certain contents: to imagine seeing red and feeling hot, or to imagine seeing red while feeling dizzy. We can also easily imagine that no experience of feeling hot is together with an experience of feeling dizzy. But this is not to imagine partial unity. I could be seeing red while feeling hot, and you could be seeing red while feeling dizzy. That wouldn't be partial unity, because my experience of seeing red isn't the same particular experience as yours, even though it may be the same qualitative type of experience as yours.¹⁸

In order to imagine 'partial unity', Hurley suggests, we need to imagine some element missing in the duplication case. Her suggestion is the following:

To imagine a partially unified consciousness, we must imagine something not just about the type and content of experiences, but also something about their identity. We'd have to imagine that some experience of seeing red that is together with an experience of feeling hot is the very same particular experience as an experience of seeing red that is together with an experience of feeling dizzy – even though that experience of feeling hot is not together with that experience of feeling dizzy.¹⁹

¹⁸ Ibid., 2.

¹⁹ Ibid.

The problem with this strategy, however, is that it isn't clear what it would be to imagine such a thing – as Hurley puts it:

There is nothing it is like for my experience of seeing red not to be identical with your duplicate experience of seeing red. Nor is there anything it is like for my experience of seeing red to be identical with itself. The 'what it's like' talk just doesn't apply to the identity of experiences in these ways. So being partially unified isn't the kind of thing the purely subjective perspective expressed by the 'what it is like' talk could in principle get a grip on at all.²⁰

So, it doesn't appear that there is anything captured by 'what it is like' talk that enables us to distinguish between 'partial unity' and 'duplication'. Hurley claims that consciousness 'must have some determinate structure or other', but that we cannot answer questions about what that determinate structure is by using the exclusively phenomenological approach of the subjectivist, because the subjectivist's approach to partial unity is unable to provide a determinate account of the distinction between partial unity and duplication.

I want to make the following suggestion about where Hurley's sceptical argument leaves us as regards the phenomenal unity slogan. We can note that Hurley's argument appears to actually presuppose an account of phenomenal unity set up in the style of the first source of motivation – it requires a unity relation that is transitive in the normal case. If this is the case, then it may be that we cannot be

²⁰ Ibid.

sceptical about *all* the different ways of setting up the problem at the same time. In order to be sceptical about the 'split-brains' set-up, we have to think that there is something other than 'split-brains' motivating the synchronic unity slogan, and accordingly motivating the idea that 'co-consciousness' is a substantive notion.

The relevant source of motivation could be the first source I described – attending to the phenomenology – or it could be the source that I have not yet discussed. The source that I have not yet discussed is, in fact, the source that Hurley appeals to in order to get her argument going – appeal to the notion of a subject of experience. At the start of her argument, Hurley introduces the notion of 'co-consciousness' via appeal to distinct subjects of experience:

Some conscious states occupying the same stretch of time are together, while others are separate. While I talk to you, I see your face and hear my own voice. These experiences are together or united within one consciousness: they are co-conscious. But you also hear my voice, and your experience is separate from mine.²¹

I shall discuss this source of motivation in more detail shortly, but before doing this, I want to raise the possibility of a less refined scepticism about 'split-brains' than that which Hurley provides. Rather than using the 'split-brain' cases in support of an objectivist, rather than a subjectivist, account, it is possible to be sceptical about the 'split-brain' cases motivating the synchronic unity slogan at all. This sceptic responds to the 'split-brain' cases just by noting that the data we get from the 'split-brain' cases

²¹ Ibid., 1.

affords a number of different interpretations, not all of which involve a 'disunified' consciousness.

To return to the example of the toothbrush and the pencil, some such models suggest that the subject is not *phenomenally* conscious of both items simultaneously – on these kinds of model, the subject is conscious of one of the items in such a way that there is nothing that it is like for the subject to be aware of it (the subject may be access conscious, though not phenomenally conscious, of the relevant item).²² For this sceptic, there is nothing about the split-brain cases that supports the synchronic unity slogan – and, unlike Hurley's scepticism, it is possible to adopt this form of scepticism about the split-brain cases as well as the other sources of motivation simultaneously.

The plausibility of this less-refined form of scepticism about unity depends upon interpreting the split-brain data in a way that doesn't give us a unity question. Given that, at this point in time, it simply isn't clear what our interpretation of the data ought to be, I propose that this form of scepticism about unity shouldn't be treated as decisive.

²² For detailed discussion of the various different models of the 'split-brain' cases that don't treat the data as supporting the synchronic unity slogan, see: T. Bayne, *The Unity of Consciousness* (OUP, 2010).

§2.3: Subjects of Experience

I now want to turn to the third and final suggestion about how to motivate the synchronic unity slogan mentioned in conjunction with Hurley's argument: the appeal to subjects of experience. Take all of my experiences and all of your experiences at a particular time. There must be some story to tell, the phenomenal unity theorist claims, about the way all of my experiences are related to one another, and the way that all of your experiences are related to one another. What is more, they claim, this story must be capable of being told at the phenomenological level – in terms of 'what it is like' for us. This kind of suggestion can be found in Dainton in the following passage:

My current stream of consciousness has an auditory phenomenal region and a visual phenomenal region, and the latter is composed of many smaller visual phenomenal regions. The various phenomenal regions comprising my consciousness are unified in a distinctive way – in a way that the regions of my consciousness and your consciousness are not – so what is responsible for this unity?²³

Against this line of thought, it might be objected that this is not the right way to motivate the synchronic unity slogan – we are not being presented with any phenomenological data over and above the idea that different subjects can have a plethora of numerically distinct experiences at a time. Why should we find it

²³ Dainton, *Stream of Consciousness*, 253.

convincing that there is some *phenomenal* story to be told here, rather than Dainton's question being answered by an account of how we ought to individuate subjects?

The sceptic's response in this case will thus be that we can answer Dainton's question just by giving an account of how we are to individuate subjects – with no account of a phenomenal relation between experiences required. Against this sceptical response, the advocate of synchronic unity may respond that an account of how we individuate subjects will at least *involve* an account of what unifies experiences together. On this line of response, the notion of a subject of experience is intimately connected with the notion of a fully unified consciousness. Just as in the case of the split-brain discussion, the sceptical worry doesn't appear decisive – with our attitude towards such scepticism perhaps turning on a distinct issue – in this case, the issue of how we ought to individuate subjects of experience.

So, we have examined three different sources of motivation for the synchronic unity slogan, and seen that there are sceptical worries corresponding to each of them. The sceptical worries discussed above are not intended to decisively show that there is no such thing as 'phenomenal unity' – rather they are supposed to demonstrate an interesting feature of the synchronic unity slogan: namely, that it is harder to articulate the motivation for accepting it than one might expect. Putting these sceptical worries to one side, then, we can begin to examine the theories of Bayne, Dainton, and Tye intended to account for the difference between a conjunction of experiences and an experience of conjunction.

§3. Synchronic Unity

We can distinguish between 'top-down' and 'bottom-up' accounts of the unity of consciousness. 'Top-down' accounts take the notion that subjects of experience have an 'overall' experience as primitive, and see the project of accounting for the unity of consciousness as the project of explaining the relationship that the 'overall' experience bears to the less complex experiences had by the subject that 'compose' it. On this view, the 'experience of conjunction' at a time is taken as primitive, and the challenge is to provide an account of how it is related to the 'conjunction of experiences' the subject has at the same time. Bayne is an example of a 'top-down' theorist, suggesting that the overall experience 'subsumes' the experiences that compose it.

'Bottom-up' theorists, in contrast, take the notion that the subject has a multiplicity of experiences - a conjunction of experiences - at a time as primitive, and take their project to be that of providing an account of how we can 'build' the subject's overall experience - the experience of conjunction - out of the multiplicity. Dainton is our example of a 'bottom-up' theorist, suggesting that a conjunction of experiences amount to an experience of conjunction when the experiences bear the primitive experiential relation of 'co-consciousness' to one another.

In addition to the 'top-down' and 'bottom-up' approaches, we also have the position taken by Tye - who attempts to *dissolve* the problem of the synchronic unity of consciousness by claiming that subjects only have *one experience* per period of

unbroken consciousness. This strategy – denying that subjects have a multiplicity of experiences – enables Tye to claim that the synchronic unity slogan ('a conjunction of experiences is not, in itself, an experience of conjunction') has no force, for on the 'one-experience' picture, subjects *never* have a conjunction of experiences.

I shall discuss these different views of synchronic unity in more detail in chapter eight, but for now I want to observe that, *prima facie*, all three views appear to have some plausibility – there is nothing *obviously* wrong with any of them. We can now proceed to an examination of the problem of diachronic unity. In this discussion I shall demonstrate that, while there are various similarities between the synchronic and the diachronic puzzles, the diachronic puzzle contains an additional element that renders a view like Tye's 'one-experience' view *prima facie* implausible. This additional element is the *continuity* of consciousness.

§4. Motivating the Diachronic Unity Problem

The diachronic unity slogan discussed earlier was the following: 'a succession of experiences is not an experience of succession'. Just as in the synchronic case, we can ask what it is that is supposed to motivate the slogan. When providing an account of diachronic unity, the relevant datum in need of explanation is that we can experience temporally extended happenings: movements, changes, and so on. We can, for example, visually experience a ball moving between distinct locations. Let's say the ball moves between locations L1-L5 over the interval of time T1-T5. The ball is in location L1 at T1, L2 at T2, and so on.

One thing to note about the ball moving between distinct locations is that the ball's movement from L1-L5 is something that has temporal parts, and that these temporal parts occur in a particular order. The sense of 'temporal part' being used here involves only a very weak sense of 'parthood', analogous to the sense in which anything spatially extended has parts. If we take a spatially extended object, we can note that, at a time, the whole object occupies a range of distinct spatial locations that comprise the total spatial region occupied by the object. The object has parts in the sense that located at any subregion of the total region occupied by the object in question will be some portion of the object that is not the whole object – rather it is a *spatial part* of the object.

Analogously, anything temporally extended has temporal parts simply in virtue of occupying a range of distinct *temporal* locations. The movement is divisible into various stages – moving from L1-L2, L2-L3, and so on, and there is a particular order in which these stages occurred – first L1-L2, then L2-L3. In fact, we can note that even these stages are further divisible – we can continue dividing and dividing these stages until the movement of the ball appears to drop out of the picture, and we are left with the ball occupying a series of distinct locations L1 at T1, L(1+n) at T(1+n), and so on.

One thought that ought to strike us now is that the above remarks about the motion of the ball from L1-L5 also appear to apply to our *experience* of the ball. This is due to a phenomenological feature of temporal experience that has been called the *Principle*

of *Presentational Concurrence* (henceforth 'the PPC'). The following discussion of the PPC is intended as both a discussion of it as an interesting feature of temporal experience, as well as a discussion of what might be motivating the diachronic unity slogan.

§4.1: The PPC

The PPC was initially formulated by Izchak Miller in *Husserl, Perception, and Temporal Awareness* as follows:

The duration of a *content* being presented is concurrent with the duration of the *act* of presenting it. That is, the time interval occupied by a content which is before the mind is the very same time interval which is occupied by the act of presenting that very content before the mind.²⁴

In order to avoid commitment to a distinction between 'act' and 'content', I want to suggest that we can formulate the PPC more neutrally as follows:

The PPC: It seems as if the duration of experience *in* which an item X is represented is concurrent with the duration that X is represented as occupying.

²⁴ I. Miller, *Husserl, perception, and temporal awareness* (MIT Press, 1984), 107.

The PPC comprises two components: firstly, that it seems that the order in which the objects of experience occur is the same as the order in which those objects are experienced; secondly, that it seems that the duration occupied by the objects of experience is concurrent with the duration occupied by the relevant portion of experience itself. The claim about the apparent relationship between represented order and order of representations, we can note, remains true about ways of experiencing other than perception. The claim about duration occupied by experience and object of experience, however, appears to be a distinctive feature of perceptual experience.

To illustrate this, we can consider the case of episodic memory. I am engaging in episodic memory when I recall what it was like to experience a certain event – I can recall, for instance, what it was like to arrive by plane in France for the first time. This episode of recollection is something that is temporally extended, and in which only the ‘represented order’ component of the PPC appears to apply. In the case of episodic recollection, it seems that the order in which the recollected objects feature in experience is the same as the order in which those objects are recollected.

However, it doesn’t seem as if the duration occupied by the objects of recollection is concurrent with the duration of the episode of recollection – for those objects are given ‘as past’. It is this kind of observation that drives the claim that the PPC is distinctive of perceptual experience. One objection to the PPC that has been raised by

Tye is that it rests upon an elementary confusion of 'represented order' with 'order of representations':

It seems to me that there is a serious confusion here... If I utter the sentence

The green flash is after the red flash,

I represent the red flash as being before the green one; but my representation of the red flash is not before my representation of the green flash. In general, represented order has no obvious link with the order of representations. Why suppose that there is such a link for experiential representations?²⁵²⁶

Of course, if the claim being made about the phenomenology of perceptual experience rested on a general principle which stated that represented order *does* have an obvious link with the order of representations in all cases, then Tye's objection would be quite right. However, as is made clear by the comparison of the perceptual case with the case of episodic recollection, the claim doesn't rest upon a general principle of this kind – rather, it is a claim about a specific case: the case of perceptual experience.

In support of the PPC as a claim about the phenomenology of the perceptual case, we can look at the comparison between memory and perceptual experience again. In the

²⁵ Tye, *Consciousness and persons*, 90.

²⁶ I will return to Tye's idea that there are parallels to be drawn between sentential and experiential representation in chapter five.

case of episodic recollection, we noted, we can discern a difference in the temporal location of the relevant experience, and the temporal location of the item being recollected – the item recollected is experienced as *past*. In the case of perception, however, we are unable to discern any such difference between the temporal location of the perceptual experience and the temporal location of the object/s of experience.

In order to deny the PPC in the perceptual case, the opponent would have to examine the phenomenology of perceptual experience, and find an example of a situation in which the object/s of perceptual experience are experienced as occurring before or after their perceptual experience of it/them. This, I propose, cannot be done – items don't seem to be experienced in this way in perceptual experience: thus the PPC, as a claim about the phenomenology of perceptual experience, rests secure.

Tye's response to the PPC is a response to it as a *metaphysical* claim – a claim about how experience in fact *is*, rather than as a phenomenological claim – a claim about how experience seems to the experiencing subject 'from the inside'. My response here provides a defence of the phenomenological, though not straightforwardly the metaphysical claim, the metaphysical claim being the following:

Metaphysical PPC: The duration of experience *in* which an item X is represented is concurrent with the duration that X is represented as occupying.²⁷

The metaphysical version of the PPC is just the PPC without the claim about how experience *seems* – rather than being a claim about how experience seems ‘from the inside’, it is a claim about how experience in fact *is*. The position I ultimately want to adopt involves explaining the phenomenological claim by appealing to the metaphysical claim. My answer to Tye’s question (‘Why suppose that there is such a link for experiential representations?’) shall be that accounts of temporal experience that *don’t* make this metaphysical claim end up getting the phenomenology of temporal experience wrong. This failure of other accounts of temporal experience to adequately treat the phenomenology, I shall attempt to show, results from their failure to adopt the metaphysical PPC. The PPC, then, while not itself a metaphysical claim, is something that ought to *incline* one to adopt the metaphysical PPC.

At this stage, then, we have two pieces of phenomenological data to be accounted for:

- 1) It seems as if we can experience temporally extended happenings.

²⁷ Henceforth, talk about ‘the PPC’ is talk about the phenomenological claim, and talk about ‘the metaphysical PPC’ is talk about the metaphysical claim.

- 2) The PPC: It seems as if the duration of experience *in* which an item X is represented is concurrent with the duration that X is represented as occupying.

One account of temporal experience that we could formulate in response to these two pieces of phenomenological data is the account of temporal experience that I shall call the 'Naïve Theory'.²⁸

The Naïve Theorist is motivated by two thoughts: the first is that we can account for the PPC by adopting the metaphysical PPC; the second is that if we adopt the metaphysical PPC, then experiences will be temporally extended, and divisible – just like the movement of the ball – into smaller and smaller temporal parts. Motivated by these thoughts, the naïve theorist proposes that we ought to think of a temporal stretch of perceptual experience as consisting of a series of 'snapshots'. The idea behind 'snapshots' is the thought that if a temporally extended phase of experience is divided into earlier and later parts enough times, we arrive at a point at which experience is no longer divisible in this way.

There are two different ways in which we might conceive of 'snapshots'. On the first view, 'snapshots' are literally instantaneous portions of experience that represent literally instantaneous parts of temporally extended happenings. On the second

²⁸ I shall also call this kind of view the 'unmodified naïve theory' later on in the chapter, to distinguish it from a different, but related, account: the *modified* naïve theory.

view, 'snapshots' are not literally instantaneous: rather, they are temporally extended portions of experience that represent portions of temporally extended happenings without discernable earlier and later temporal parts. A naïve theorist might be more inclined to think of snapshots in the second way if he has some reason for denying that there are such things as instants.

Another reason a naïve theorist might adopt the second view is if he is impressed by the results of certain experiments in psychology which have been taken to reveal certain facets of the structure of temporal experience. One such experiment is particularly relevant at this point. In this experiment, it is noted that if two distinct stimuli are presented to the subject over a period of time that is less than 30 m/s, the subject is incapable of determining the order in which the stimuli occurred.²⁹ This result has led some theorists, of which Ruhnau is a good example, to claim that temporal experience "is structured by adirectional temporal zones" of 20 m/s.³⁰ This period of time, a naïve theorist might think, marks the point at which temporally extended experiences are no longer divisible into earlier and later temporal parts: this period is a *snapshot*.

From now on, when I talk about 'snapshots', I remain neutral as to which of these two views ('literal instants', or 'no discernable earlier and later temporal parts') is in

²⁹ For discussion of this, and other experiments relevant to issues surrounding temporal experience, see:

E. Ruhnau, "Time-gestalt and the observer," *Conscious experience* (1995): 165-184.

³⁰ *Ibid.*, 168.

question. Both conceptions of 'snapshot' face the same objection – an objection that Dainton has formulated as follows:

...a succession of still images that *are perceived as such* do not and cannot amount to a direct experience of motion. And what goes for motion goes for change and persistence generally.³¹

The objection raised by Dainton is that while the naïve theory might be consistent with the PPC, it is not consistent with the first datum that we are attempting to account for – the datum that we can perceptually experience temporally extended happenings. On the naïve theory, we are aware first of one snapshot, then another, then another, and so on. What is needed from the naïve theory is some account of how it is awareness of these snapshots can amount to awareness of temporally extended happenings.

It is here that we find a source of motivation for the diachronic unity slogan that 'a succession of experiences is not an experience of succession'. According to the naïve theory, the subject has a succession of experiences – a succession of 'snapshots'. However, the objection to the naïve theory is that successions of such experiences don't in themselves amount to an *experience of succession*. What is needed, then, is some story about *unity* – a story about what is required over and above a succession of experiences in order to get an experience of succession.

³¹ B. Dainton, *The Phenomenal Self* (Oxford University Press, USA, 2008), 154.

Before examining what these stories ought to look like, we need to look at some constraints upon the form they must take. One such constraint is the 'Time-Windows' claim. The 'Time-Windows' claim provides a way of demonstrating precisely where the naïve theory goes wrong, and what is required of any proposed alternative account. The 'Time-Windows' claim can be illustrated by using an example – the example of experiencing a concert.

§5: Time-Windows

If I attend a concert that lasts for three hours, and remain conscious of the concert for the whole duration of the concert, then I will have been experiencing the concert for three hours. To characterise my experience over the course of those three hours, we will need to appeal to the whole concert – with all of its three-hour duration. There is thus an isomorphism between the duration of the concert, and the duration of the relevant portion of experience – both the portion of experience and the concert are three hours long.

I should note at this point that there are number of different ways in which the subject of experience can be aware of the concert. After two hours have elapsed, for instance, the subject can be perceptually experiencing the concert, can be aware of the concert via *memory* – short-term memory, episodic memory, or semantic memory – and can also be entertaining *thoughts* about the concert – perhaps thinking 'this

concert seems to have been going on for an awfully long time', or, hopefully, 'this concert seems to have flown by'.

Despite this glut of ways in which the subject can be aware of the concert after two hours have elapsed, I am focussing on the issue of our *perceptual* awareness of the concert. The particular aspect of our perceptual awareness that I am interested in here is the following: If, at any point during the concert, we were to attempt to characterise the subject's perceptual experience - if we were to say to the subject 'how are things phenomenologically with you *now?*' - we find that to characterise what the subject perceptually experiences *at* a time, we find that we need to appeal to an interval of time.

It is this feature of temporal experience that the naïve theorist fails to account for. On the naïve theory, temporal experience consists of a series of snapshots that occur in a particular order. When we come to characterise the subject's experience at a time, on the naïve theorist's account, we ought merely to point to the snapshot occurring at that time. However, as the case of the concert shows, we need to appeal to more than just a snapshot in order to characterise the subject's experience at a time.

Let's say that after an hour of the concert has elapsed, we ask the subject, 'what are you perceptually experiencing *now?*' He may very well answer 'the concert'. However, when pushed, he will admit that he is not perceptually experiencing the first five minutes of the concert, or the five minutes after that - he may be able to recall that he *did* perceptually experience them, but they are not relevant to

characterising his perceptual experience now. He will also admit that he is not perceptually experiencing the *last* five minutes of the concert, or the five minutes before that – after all, both of those five-minute concert-periods haven't happened yet.

The example of the concert reveals an important feature of temporal experience – the feature being that to characterise the subject's perceptual experience at a time, we need to appeal to something of shorter duration than the time for which the subject has been experiencing, but something that is nevertheless temporally extended. Of course, there will also be situations in which the period of time that we need to appeal to is of the same duration as the duration for which the subject has been experiencing – situations in which the subject's current period of experience has only been going on for a short time.

We can call this feature of experience the '*Time-Windows*' claim:

Time-Windows: To characterise a subject's experience *at* a time we need to appeal to some *interval* that is equal to or shorter than the period of time for which the subject has been experiencing.

Another piece of phenomenological evidence that we can draw on in support of the Time-Windows claim is that 'what it is like' for the subject normally changes as time passes. As time goes on, we normally find that what is relevant to characterising the

phenomenology of a subject's experience changes – what once was relevant ceases to be relevant, and what once was *not* relevant becomes relevant.³²

One reason for thinking this concerns the *future*. If we are interested in what the subject is perceptually experiencing after an hour of the concert, it looks like it is a mistake to attempt to characterise what the subject is perceptually experiencing at that time via appeal to what the subject goes on to experience five minutes later. After all, what the subject will perceptually experience five minutes later will be determined by things that haven't happened yet, and there are any number of things that might happen. It thus looks like it will be a mistake to say that after an hour of the concert has elapsed, the subject's experiential state at that time (or, alternatively, the phenomenal property instantiated by the subject at that time) will be characterised in terms of events that will not occur until five minutes later.

If this is right, then we ought not to think of there being one psychological state or phenomenal property that corresponds to the whole concert-experiencing, but rather a series of such things, all of which are to be characterised in terms of intervals of time. The psychological property relevant to experiencing what occurs two and a half hours into the concert, plausibly, can only be instantiated by the subject after

³² We can also phrase this thought in terms of phenomenal properties. 'Phenomenal properties' are those properties that pick out 'what it is like' for the subject. Phrased in these terms, the thought is that rather than thinking of the subject as bearing one phenomenal property that corresponds to the whole concert-experiencing, we ought to think of the subject as bearing a series of different phenomenal properties.

those two and a half hours have elapsed. If this is the case – with different intervals of time being relevant to characterising what the subject is experiencing at different times – it looks as though it is appropriate to think of the whole concert-experiencing as consisting of a series of different Time-Windows.

So, we have two different arguments for the existence of Time-Windows: the first is that when we attempt to characterise a subject's experience at a time, we find that we need to appeal to some interval of time. The second is that the phenomenal properties instantiated by the subject *change* as experience unfolds – they change in the sense that some of the properties instantiated at some times are not instantiated at other times. 'What it is like' for the subject thus changes as the subject's experience unfolds, so in order for us to correctly characterise the subject's experience at a time we need to appeal to some interval of time that is of duration less than that of the period for which the subject has been experiencing.

§6. The Problem of Diachronic Unity

Having established that there are Time-Windows involved in temporal experience, there are various questions that we can ask about them. One question concerns how we ought to account for Time-Windows – how can we accommodate them in a theory of temporal experience? Another question concerns how it is that Time-Windows are manifest in the phenomenology of perceptual experience. I shall answer the first question first.

The first question gives us a diachronic unity question that is analogous to the synchronic unity question. At this stage of proceedings, we have three claims about the phenomenology of temporal experience that we need to account for:

- 1) It seems as if we can experience temporally extended happenings.
- 2) The PPC: It seems as if the duration of experience *in* which an item X is represented is concurrent with the duration that X is represented as occupying.
- 3) Time-Windows: To characterise a subject's experience *at* a time we need to appeal to some *interval* that is equal to or shorter than the period of time for which the subject has been experiencing.

We have seen that the Naïve Theory fails to account for the first datum listed above. An obvious way to avoid such failure is to provide an account that explicitly attempts to deal with Time-Windows. One way Time-Windows can be thought of that makes explicit the parallels between accounting for them and accounting for synchronic unity is in terms of 'togetherness'. At a time, the thought goes, we find that what is relevant to characterising the subject's experience is neither an instant, nor the duration for which the subject has been experiencing. The thought behind 'experienced togetherness' is that we can distinguish between those portions of time that are relevant to characterising the subject's experience at a given time, and those that are not, by saying that only the relevant portions are experienced *together* at a time.

Once we have arrived at this point in the debate, we are dealing with something that is being explicitly formulated as a *unity* question about consciousness. The account of Time-Windows is being conceived of as an account of what is responsible for the 'unity' or 'togetherness' with which items are experienced in a Time-Window. Now we have the notion of being experienced 'together' in play, we need to give some account of what it means to experience a collection of things 'together'.

It is at this point in our examination of the diachronic unity of consciousness that the puzzle of temporal experience begins to emerge. The puzzle emerges when we consider one strategy for cashing out what 'togetherness' is – in terms of *simultaneous awareness*. For a collection of items that are temporally spread out over an interval to be experienced 'together' is, on this proposal, for them to be experienced *simultaneously*. We can sum up this line of thought with the following slogan, which we can call 'the Principle of Simultaneous Awareness' – 'the PSA' for short – 'There are instants at which we experience intervals'.³³

It is the PSA that generates the puzzle of temporal experience, for while on the one hand it provides us with a way of accounting for one phenomenological feature of experience – the feature captured by the 'Time-Windows' claim, on the other there is a question about whether commitment to the PSA enables us to accommodate the PPC. According to the PPC, it *seems* as if experiencing something temporally extended is something that takes time – for the duration occupied by the experience is concurrent with the duration occupied by the object of experience. However,

³³ The PSA – a principle that will prove crucial in what follows – finds its first expression in the work of Izchak Miller (See Miller, *Husserl, perception, and temporal awareness*.)

according to the PSA, experiencing something temporally extended appears to be something that *doesn't* require a temporally extended portion of experience: it merely requires an *instantaneous* portion of experience.

The puzzle, then, is generated by the fact that we have two distinct phenomenological claims that appear to drive us in two quite different metaphysical directions. The PPC drives us in the direction of metaphysical PPC, while the 'Time-Windows' claim drives us in the direction of the PSA. The puzzle is thus a puzzle about whether we can be committed to either metaphysical claim while simultaneously accommodating the phenomenological claim accounted for by the other metaphysical claim, given that the two metaphysical claims contradict one another.

In fact, things aren't quite this simple with the PSA, for we can distinguish two different versions of it: a strong version, and a weak version. It is only the strong version of the PSA that raises a puzzle about accommodating the PPC. The two different versions of the PSA are best thought of as different interpretations of the PSA – different interpretations of what makes the PSA true.

§6.1: Fat- and Thin- PSA

The first way of reading the PSA is that the sentence 'there are instants at which we experience intervals' requires an instantaneous truth-maker. On this reading, when

we consider the instant in question, all that is relevant to determining what is the case at that instant is the instant itself, and nothing more. I call this reading of the PSA 'Thin-Truthmaker PSA' (hereafter 'Thin-PSA').

The second way of reading the sentence is not so committed – on this reading, there is no commitment to what might make the claim true. On this reading, an *interval* of time could be relevant to determining the truth of the claim – what is the case at a time can be determined by what is the case over an interval of time.³⁴ I call this reading of the PSA 'Fat-Truthmaker PSA' (Hereafter 'Fat-PSA'). Here, then, are the two different versions of the PSA:

3a. Thin-Truthmaker PSA (Thin-PSA): The claim is made true by the state of the subject at an *instant*.

3b. Fat-Truthmaker PSA (Fat-PSA): Neutral as to what it is about the subject that makes the claim true.

These two different versions of the PSA are not often distinguished in the literature – the Fat-PSA is often overlooked, with only Thin-PSA being discussed.

³⁴ On views on which there are no such things as instants, the talk of instants here can be translated into talk of 'moments', where 'moments' picks out the smallest portion of time admitted by the view, without changing the dialectic in what follows.

The Fat-PSA, unlike the Thin-PSA, is compatible with there being an isomorphism between the temporal extent of the part of experience whose phenomenology is being characterised and the temporal extent of what is required to characterise it. On the thin interpretation of PSA, when we characterise what experience is like at a time, we need to appeal to something temporally extended to characterise something instantaneous (experience at that instant, or an instantaneous experience). On Fat-PSA, we can talk about what experience is like at a time, but nevertheless hold that talk about what experience is like at a time is only made true by what experience is like over an *interval* of time.

Given that interpreting the PSA as Fat-PSA enables us to avoid the apparent difficulty of accounting for the PPC, it might seem puzzling that Fat-PSA is often overlooked, with the PSA being conceived of as Thin-PSA. However, if we reflect upon the reason that the PSA is introduced into the debate – in an attempt to provide an account of experienced ‘togetherness’ – we can see why the Fat-PSA gets overlooked: because it doesn’t obviously provide us with an account of ‘togetherness’. The Fat-PSA remains neutral upon what makes it true that there are instants at which we experience intervals, so whereas the Thin-PSA tells us that ‘togetherness’ is to be thought of as something like ‘being represented by the same instantaneous portion of experience’, the Fat-PSA doesn’t tell us how we are to think of ‘togetherness’.

One way of getting a grip on the difference between the two different versions of the PSA has been suggested by Ian Phillips in his paper ‘Perceiving Temporal

Properties'. The Thin-PSA is compatible with what he calls 'Russell Worlds'.³⁵ The idea behind Russell worlds is that things could be as they are in the present even if all of the past events that we take to have happened had, in fact, *not* happened. As Russell puts it:

There is no logical impossibility in the hypothesis that the world sprang into being five minutes ago, exactly as it then was, ... There is no logically necessary connection between events at different times.³⁶

Phillips' suggestion is that we can consider an even more extreme view than one according to which the world sprang into view 'five minutes ago': we can consider a view on which there is no logical impossibility in the hypothesis that the world sprang into view *this instant*. The Thin-PSA is compatible with this state of affairs.

We can think of the Thin-PSA as comprising of two components: the first component is the rejection of the thought that the temporal extension of a subject's *experience* is relevant in making the claim that 'there are instants at which we experience intervals' true. The second component is the rejection of the thought that the temporal extension of the *object* of a subject's experience is relevant in making the same claim true. I now want to consider two arguments in favour of the Thin-PSA, and three different ways of objecting to these arguments.

³⁵ I. Phillips, "Perceiving Temporal Properties," *European Journal of Philosophy* 18, no. 2 (2010): 5.

³⁶ Bertrand Russell, *The analysis of mind* (Routledge, 1995), 132.

Dainton has suggested the following argument from the thought that 'there are instants at which we experience intervals' to the Thin-PSA:

Suppose one accepts that to experience a temporally extended content, one must have an awareness of the first half of the content that is simultaneous with one's awareness of the second half. Clearly this awareness cannot begin earlier than the second half of the content, but could it occur concurrently with it? Not if the second half of the content has some temporal duration, for the same considerations apply... The same applies for any temporally extended contents, no matter how brief. An adherent of PSA is thus driven ineluctably to the ...[Thin-PSA]...³⁷

Dainton's proposed argument is that the first point in time at which the subject could become aware of all of the items contained within an interval is the point in time at which the interval has *elapsed*. We cannot experience a collection of items together, on this line of thought, unless all of those items are present in experience, and items cannot be present in experience if they haven't yet occurred. There is thus a first *instant* at which the subject can become aware of all of the relevant items *together*: the first instant at which the interval in question *has elapsed*.

The second argument that the Thin-PSA theorist may appeal to in explaining why it is that we need to account for 'experienced togetherness' in terms of awareness at an instant is that the temporal extension of experience is *irrelevant* to any account of Time-Windows. After the subject has been experiencing the concert for two hours,

³⁷ Dainton, *Stream of Consciousness*, 133.

there is a weak sense in which everything that the subject has experienced over those two hours is experienced 'together', simply in virtue of being represented in the same unbroken period of conscious experience.

However, this sense of 'experienced together' – being represented in the same unbroken period of conscious experience – can't be used to account for Time-Windows, because Time-Windows are set up in terms of there being portions of conscious experience that *aren't* relevant to a characterisation of what it is like for the subject at a time. If the temporal extension of experience doesn't suffice to provide us with an account of Time-Windows, the thought goes, then we ought not to be surprised if an account of Time-Windows is given in terms of a portion of experience *without* temporal extent: the *instant*.

At this point, we have two lines of thought that lead us from 'experienced togetherness' to the Thin-PSA: the first one being that there is a first instant at which different items *can* be experienced together, and the second being that the temporal extension of experience is simply irrelevant to an account of Time-Windows. How might one respond to these arguments?

§6.2: Rejecting the Thin-PSA

One way to respond is to adopt an 'externalist' response, and claim that in order for experience at an instant to have the phenomenal character it does, it is a requirement

that the object[s] of experience be temporally extended. According to the externalist, perceptual experience is to be conceived of as a relation to mind-independent objects. It is thus a requirement upon the subject having a perceptual experience as of something temporally extended that there exists some temporally extended object of that experience. The 'externalist' rejects the component of the Thin-PSA that claims that the temporal extent of the object of experience is of no relevance in making the PSA true.

The 'externalist' line of thought – involving commitment to the idea that the objects of experience must be temporally extended in order for experience to have the character it does – is unavailable to a theorist who holds that the phenomenal character of experience can be identical in cases of veridical experience and hallucination.

The second response one might make is what I shall call the 'temporal slice' response. On this view, experience at an instant only possesses the phenomenal character it does in virtue of being an instantaneous portion – an instantaneous 'temporal slice' – of a temporally extended experience. It is this claim, I shall argue over the course of this thesis, that provides us with the only way of giving a satisfactory account of temporal experience. The reason for this is that adopting the 'externalist' response doesn't suffice to correct the mistaken claims about the phenomenology that Thin-PSA commits us to. My proposal, then, is that it isn't enough for us to simply reject the Thin-PSA – rather, the Thin-PSA must be rejected in a particular way: by making the 'temporal slice' response.

The third way of responding to the Thin-PSA is to adopt a position that commits to both 'externalism' and to the 'temporal slice' claims. On this view, experience at an instant only possesses the phenomenal character it does in virtue of the temporal extension of the object[s] of experience and in virtue of the temporal extension of the experience that it is a temporal part of. Of course, on my proposal, what will be doing the work in correcting the errors of Thin-PSA will not be the 'externalist' component of such a view, but rather the 'temporal slice' component.

However, despite the possibility of these three responses, there is one serious problem facing *any* attempt to reject the Thin-PSA that I want to discuss. This is the idea that the only way to give a substantive account of 'experienced togetherness' is to commit to some instantaneous temporal part of temporally extended experience being responsible for representing a collection of items *together*. We can illustrate this by looking at objections to Dainton's account, for Dainton attempts to provide an account of 'togetherness' while denying the Thin-PSA.

Dainton's attempt to account for what it means to say things are experienced 'together' is to appeal to a 'primitive experiential relation' - the relation of 'co-consciousness'. He says the following about situations in which a collection of items are experienced *together*:

How do the contents in a single phenomenal present come to be experienced as a unified whole if they are not apprehended by a single act of awareness of the sort

posited by advocates of the PSA? The answer, I suggest, is that the contents in question are related by *co-consciousness*, the same primitive inter-experiential relationship that is responsible for the unity of consciousness at a given time. Just as all the constituent parts of a spatial field of content can be directly co-conscious, so too can all the constituent parts of a *temporal* field of content.³⁸

A phenomenal present is a unified phenomenal expanse – its earlier and later parts are experienced together – and for an experience to be thus its constituents must be transitively co-conscious.³⁹

The problem facing Dainton's attempt to account for 'togetherness' while renouncing the Thin-PSA is that it isn't clear that there is anything to 'co-consciousness' beyond its being a label for the problem. This challenge to his view – that 'co-consciousness' is a label, not a solution – is particularly pressing for Dainton, given his claim that, as a primitive experiential relation, 'co-consciousness' cannot be defined in terms of any simpler notion.

I shall say a lot more about Dainton's view, and my objections to it, in chapter six, but for now I hope to have hinted that there are certainly going to be difficulties for any account that accepts the claim that there is such a thing as 'experienced togetherness', while simultaneously denying the Thin-PSA. Despite my disagreeing with his account, I am nevertheless sympathetic to his cause: the cause being an

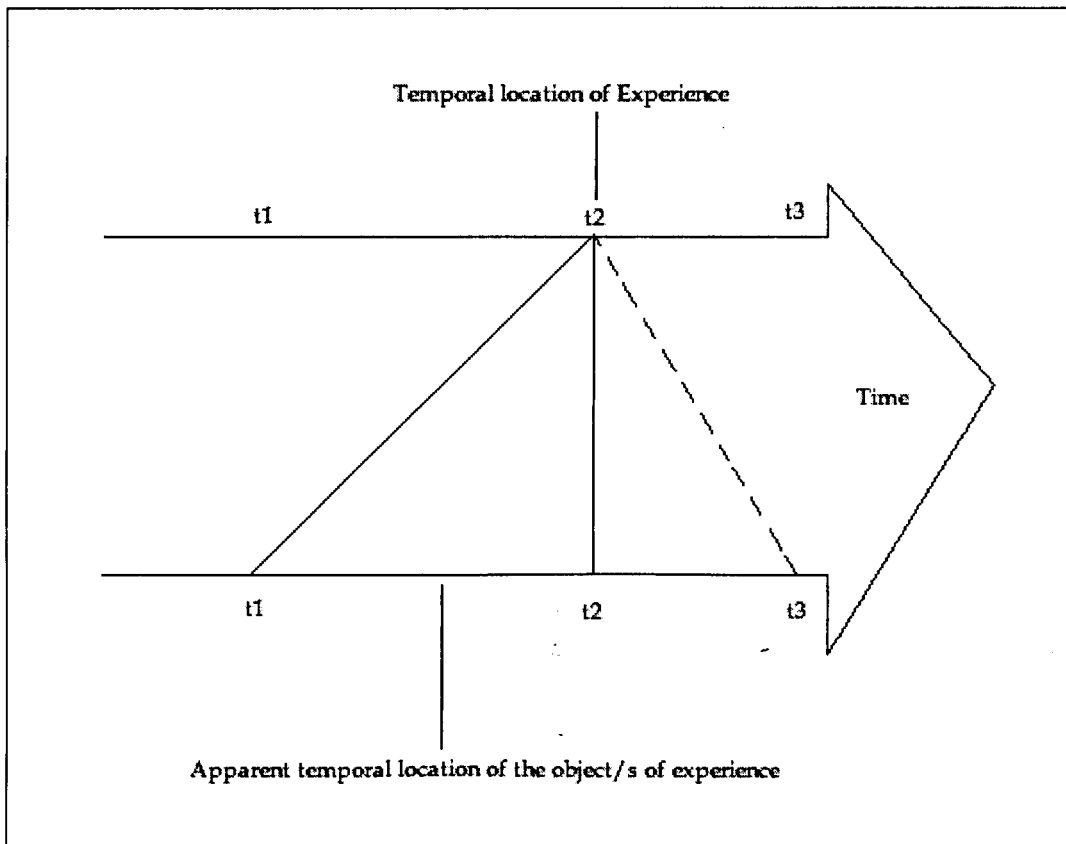
³⁸ B. Dainton, "Time in Experience: Reply to Gallagher," *Psyche* 9, no. 10 (2003): 26.

³⁹ *Ibid.*, 27.

attempt to provide an account of temporal experience that rejects Thin-PSA, and thus avoids the difficulty of having to accommodate the PPC while denying the Metaphysical PPC.

One reason that I am in sympathy with Dainton's project is that there are serious problems facing the accounts that commit to Thin-PSA. Once again, I do not want to go into these problems in too much detail at this point – this will be the business of the following chapters. Despite the initial apparent lack of appeal of the Fat-PSA, as compared with the Thin-PSA, over the following chapters I shall develop an account of diachronic unity that commits to the Fat-, rather than the Thin-, PSA. I propose that we ought to attempt to provide an account that doesn't conflict with the phenomenology – and whereas the Thin-PSA leads to conflict, the Fat-PSA does not. Demonstrating precisely where these accounts go wrong is a difficult matter, and requires more constraints and distinctions to be introduced. For now, we can begin to get an idea of the kind of things that Thin-PSA Theorists say about the diachronic unity of consciousness.

There are two broad camps into which Thin-PSA theorists fall: they are either *Memory Theorists*, or *Specious Present Theorists*. Both the Memory Theorists and the Specious Present Theorists, in committing to the Thin-PSA, are also committed to the denial of the Metaphysical PPC. They both think of temporal experience as having the 'triangular' structure described by the diagram below:



The diagram above represents a Thin-PSA account, with an instantaneous portion of experience representing a temporally extended spread of content. Some Thin-PSA theorists hold that the apparent temporal location of the object/s of experience cannot involve locations *later* than that of the relevant portion of experience, while others – Husserl, for instance – disagree. This aspect of Thin-PSA accounts is represented by the dotted line in the diagram above.

While this provides one dimension along which Thin-PSA theorists can disagree, a more important source of disagreement for our purposes concerns the disagreement between 'Memory Theorists' and 'Specious Present Theorists'. While both are committed to instantaneous portions of experience representing temporally extended

happenings, they disagree over what is experienced as 'present' or 'happening *now*'. The Memory Theorist claims that only a 'snapshot' can be experienced as present, whereas the Specious Present Theorist claims that everything featuring in a Time-Window can be experienced as present. I shall say more about this disagreement, and the debate between the two kinds of account, in the third chapter.

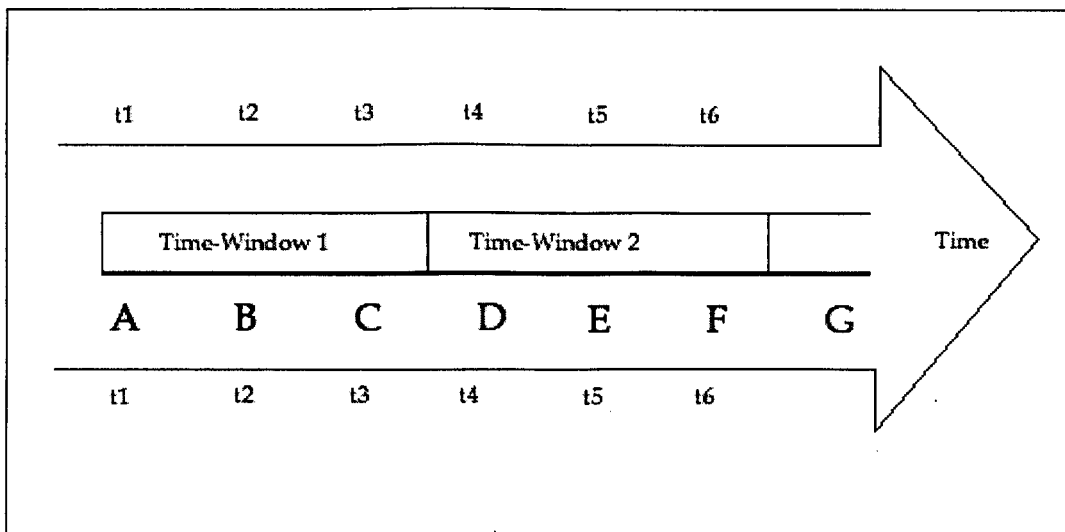
§7. Conclusion: Diachronic versus Synchronic Unity

So, at this stage of proceedings we have a diachronic unity question: how are we to account for the 'experienced togetherness' of the contents of a Time-Window? We also have a puzzle regarding our answer to this question: we seemingly have to choose between giving an account of 'togetherness' in terms of Thin-PSA, and giving an account that doesn't face problems in giving an account of the PPC. There is clearly some similarity between the diachronic and the synchronic unity questions: both require us to provide some account of 'togetherness' in order to account for the experience of conjunction (in the synchronic case) or succession (in the diachronic case).

There are also differences between the two questions, however. One crucial difference is that there doesn't seem to be the same kind of puzzle in the synchronic case as there is in the diachronic case. In the diachronic case we are faced with the dilemma described above: either we account for 'togetherness', or give an account that remains consistent with an important aspect of the phenomenology (the PPC), but not both. In the synchronic case, however, it doesn't appear that providing an

account of 'togetherness' requires us to abandon any plausible phenomenological claims: the puzzle just concerns saying what 'togetherness' is.

A second crucial difference between the two questions is that there is another aspect of diachronic unity besides 'Time-Windows' that needs accounting for: this aspect is the *continuity* of consciousness. The phenomenological datum that the 'continuity of consciousness' picks out is that it seems to us that temporally extended objects of experience can be the temporal parts of a multitude of different events over a period of time. I shall illustrate what this means by using an example - the example of hearing an A minor scale. For the purposes of the example we can assume that Time-Windows have a determine length, and that this length allows only three tones to be experienced 'together'.



The diagram represents one possible model of a subject's temporally extended experience. On this model, the subject's temporally extended experience is conceived

of as consisting of a series of Time-Windows that occur one after the other. In the first Time-Window, the tones A, B, and C are experienced together, and in the second, the tones D, E, and F are experienced together. The diagram is intended to remain neutral on the issue of what account we are to give of 'togetherness'.

Now consider how the tone 'C' features in the subject's experience. On the model proposed above, tone 'C' is only experienced together with tones 'A' and 'B'. It looks as though, on this model, 'C' is only experienced as a temporal part of the temporally extended event A-B-C, but not as part of any temporally extended event involving 'D', 'E', or 'F' – because, plausibly, 'C' being experienced as a temporal part of a temporally extended event requires that 'C' be experienced together with the other temporal parts of the relevant event.

However, when we reflect upon what it is like to hear an A minor scale being playing in the above fashion, this result – that tone 'C' is only experienced as a temporal part of the event A-B-C – doesn't seem right. 'C' is also experienced as a temporal part of an event that includes 'D'. At t_4 , the subject will be experiencing tone 'D', but 'D' will be experienced as following on from 'C'. This example provides us with a sense of the way in which consciousness is continuous – the objects of experience are experienced in a particular way: as following on from what occurred immediately before them. I shall say more about how we ought to conceive of 'the continuity of consciousness' in the next chapter.

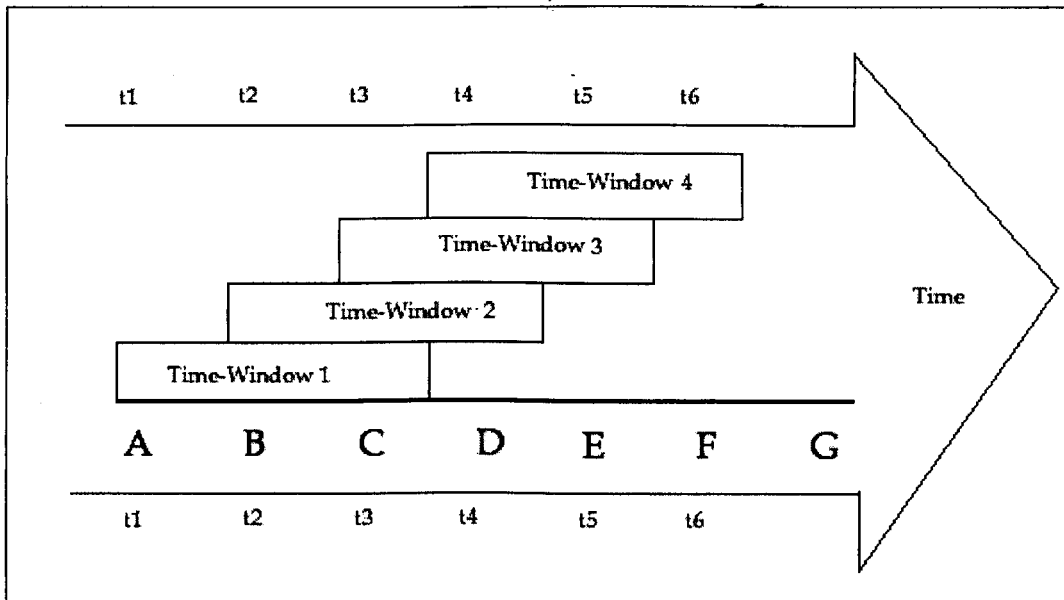
How should we respond to the demonstrated deficiency with the above model? One proposal that might seem tempting could be to apply the same solution to the 'continuity' problem as was applied to the 'succession' problem. That is, it might seem tempting to claim that the *whole* A minor scale is experienced 'together' – for that way 'C' gets to be experienced as a temporal part of all of the relevant events (A-B-C, B-C-D, C-D-E). On this proposal, there is just one experience of the whole scale, rather than a series of distinct experiences of various temporal parts of the scale, all of which represent a three-tone duration.

This proposal, however, appears to rule out our giving an account of Time-Windows. If the *whole* A minor scale is experienced together, then we have lost sight of the datum that, at a time, the subject can only experience a limited temporal extent of the scale together. So, it looks as though we are faced with another dilemma concerning temporal experience: either we account for Time-Windows (by positing a series of distinct experiences), and fail to account for continuity, or we account for continuity (by positing *one* experience), and fail to account for Time-Windows.

Neither of these positions – successive Time-Windows, or 'one experience' looks as though they can provide a plausible account of temporal experience. It is here that we can locate an important difference between how we ought to account for diachronic and synchronic unity. Whereas in the synchronic unity case, the claim that the subject only has one experience at a time looked as though it had some

plausibility, in the diachronic case, it looks as though it does not – as it is hard to see how such a claim could be reconciled with the ‘Time-Windows’ claim.⁴⁰

Despite the dilemma posed above – that both successive Time-Windows, and the one experience proposal, are inadequate – there is a third proposal that can be made when attempting to provide an account of continuity. The relevant proposal is that Time-Windows ‘overlap’ one another – as demonstrated in the diagram below.



This proposal enables an account of continuity to be provided – the note ‘C’ is experienced as a temporal part of multiple temporally extended events, as it features

⁴⁰ Michael Tye *does*, of course, provide an account of diachronic unity according to which the subject only has ‘one experience’ per period of unbroken consciousness. In chapter five I develop this *prima facie* problem into a more powerful objection to his account.

in multiple Time-Windows in which it is experienced 'together' with various other tones. This 'overlap' proposal is made by nearly all of the theorists whose views I shall later discuss.

The additional aspect of the phenomenology captured by the claim that 'consciousness is continuous' thus appears to require us to not only provide an account of Time-Windows, but also an account of the *arrangement* of Time-Windows. It also appears to, *prima facie*, make an account that claims that there is only 'one experience' implausible. In the synchronic case, however, there is no such *prima facie* objection to the 'one experience' account (though it may be that such an account turns out to be unsatisfactory for other reasons).

Having set up the problems that the diachronic and synchronic accounts of unity are supposed to be accounting for, and the *prima facie* differences between the synchronic and diachronic problems, I now want to turn to an examination of diachronic unity. In chapter two, I shall provide discussion of the sense in which consciousness can be said to be 'continuous' in more detail. In the third chapter, I shall discuss the phenomenological nature of the temporally extended events that fall *within* the Time-Windows discussed in this chapter.

Chapter Two: The Phenomenology of Temporal Experience Part One: The Continuity of Consciousness

§1. Introduction

The purpose of the next two chapters is to get clear on what the phenomenology of temporal experience is, in order that we can do two things more easily. The first thing is to get exactly clear on what needs to be accounted for by a theory of temporal experience. It will be easier to construct such a theory if we know exactly what we need to give an account *of*. The second thing is that, in getting clear on the phenomenology, it becomes easier to spot exactly where the inadequacies of rival accounts lie.

In this chapter, I focus on what has been called the *continuity* of consciousness. The chapter is structured around two main questions: Firstly, how is 'continuity' to be conceived of? Secondly, what aspect of consciousness possesses the property of continuity?

§2. 'Aspects' of Consciousness

In talking about 'aspects' of consciousness, I initially have in mind O'Shaughnessy's distinction between 'the stream of experience' and 'the state of consciousness':

We must distinguish the stream of experience and the state of consciousness, since we are having such experience only because we are conscious, and whereas the experiences change with the passage of time the state remains one and the same.⁴¹

The 'state of consciousness' picks out the state that subject of experience is in when awake:

[The state of consciousness is] the vastly familiar light that appears in the head when a person surfaces from sleep or anaesthetic or dream. In other words with the state we call 'waking'.⁴²

The distinction being made here enables us to discern two different items to which the property of 'continuity' might be ascribed: we might think that consciousness is 'continuous' in the sense that subjects are capable of remaining 'continuously' awake, or we might think that the *experience* had by a subject can be in some sense 'continuous'. We might, of course, think that both claims can be true – in what follows I shall advocate just such a position, though I shall claim that the sense in which the state of consciousness can be continuous is importantly different from the sense in which *experience* can be continuous.

⁴¹ B. O'Shaughnessy, *Consciousness and the World* (Oxford University Press, USA, 2003), 81.

⁴² *Ibid.*, 68.

When thinking about the continuity of consciousness, then, we could be talking about the state of consciousness, the stream of experience, or both. What is it that participants in the debate about temporal experience are talking about when they talk about the 'continuity of consciousness'? Tye and Dainton have both provided discussions of continuity fairly recently, so we can get an idea of the kind of claims currently being made about continuity by looking at their views. First of all, we can look at Tye's introductory description of what he has in mind by the 'continuity of consciousness':

As I rub my forefinger with my thumb and I feel the smoothness of the skin, my experience of smoothness is not merely a succession of independent momentary experiences of smoothness. It is a continuous sensation. This continuing of the sensation is not just an objective fact about it. It is something I experience, or so it is standardly supposed. The streamlike quality of the sensation is itself a phenomenal feature... This is true for experiences generally. My experience of a dull pain that lasts several minutes has a continuous character to it that is itself experienced.⁴³

Tye's description of the 'continuity of consciousness' appears to be a description of a feature of the stream of experience – he talks of our experience of the continuous character of experience itself. One move that is often made in the debate about temporal experience is to move from talk about the *streamlikeness* of experience to talk about the *continuity* of experience. This is because the claim that 'consciousness is continuous' has been thought to *capture* the streamlikeness of consciousness. In what follows, I shall argue that we can capture the streamlikeness of consciousness

⁴³ Tye, *Consciousness and persons*, 85.

in terms of *a* notion of continuity – albeit a notion of continuity that is very different from the notion explicitly featuring in the literature. The alternative notion of continuity I shall introduce is an attempt to reveal what ‘continuity’ is *implicitly* being taken to pick out in the debate about temporal experience.

Despite setting things up in terms of the continuity of *experience*, Tye goes on to suggest that it *doesn't*, in fact, seem as if conscious *experience* is continuous. If we find his description of the phenomenology above convincing, then, Tye appears to suggest, we have been tricked into making what he takes to be an error. The purported error is the following:

When we introspect, we are not aware *of* our experiences at all... we are aware of things outside, of changes in our bodies or ourselves, and of various qualities these items are experienced as having. Thereby we are aware *that* we are having such and such experiences. But we are not aware *of* the token experiences themselves. So, we are not aware of our experiences as unified or as continuing through time or as succeeding one another.⁴⁴

On Tye's view, when we introspect, we don't find the continuity of the stream of experience (as he initially suggests) – he explicitly claims that we are ‘not aware of our experiences... as continuing through time’. Rather, he suggests, “the basic intuition with respect to unity through time is surely that *things and qualities we*

⁴⁴ Ibid., 96.

experience at successive times are experienced as continuing on or as succeeding one another."⁴⁵

That Tye attempts to explain the continuity of the stream of experience in terms of the represented continuity of the object/s experience is at least in part – if not entirely – to be explained by his commitment to ‘Strong Representationalism’. According to ‘Strong Representationalism’ (at least as Tye conceives of it), a characterisation of the phenomenology of experience is exhausted by reference to the representational content of experience:

Attention to phenomenal character is a matter of attention to the ways things other than the experience seem, that is, to qualities that are not qualities of experiences... the Strong Representationalist proposes... that phenomenal character is identical with a certain sort of representational content into which the relevant qualities enter.⁴⁶

Given Tye’s Strong Representationalism, it should come as no surprise that he suggests that we think of the continuity of the stream of experience in terms of the continuity of what is *represented* by the stream of experience. I don’t want to embark upon a discussion of the merits of Tye’s Strong Representationalism, but I do want to note that Tye has introduced a third possible bearer of the property of ‘continuity’

⁴⁵ Ibid.

⁴⁶ Ibid., 166.

being talking about when we talk about the 'continuity of consciousness' – the continuity of what is *represented* by experience.

While it might not be surprising, given his theoretical commitments, that Tye takes the continuity of consciousness to be a feature of what is represented in experience, there is one aspect of his view that *is* rather surprising. Having argued that the continuity of consciousness is a matter of represented items being experienced as continuing on from one another, Tye returns to talking about *experience* being continuous:

Chains of experienced succession and flow from one specious present to the next bind together qualities experienced as instantiated in nonadjacent specious presents into a shared phenomenal content... With a break in the chain, there is an end to the period of consciousness and an end to the *continuing experience* whose phenomenal content encompasses that period.⁴⁷

So, despite having argued that "continuity, change, and succession are experienced as features of items experienced, not as features of experiences", Tye nevertheless wants to claim that consciousness is, as a matter of fact, continuous.⁴⁸ What, we might wonder, motivates the claim that experience in fact *is continuous*, if not the fact that experience *seems* continuous? I shall attempt to provide an answer to this question in the second half of the chapter. Providing such an answer, however,

⁴⁷ Ibid., 100.

⁴⁸ Ibid., 97.

requires us to specify exactly what is meant by 'continuous' in Tye's discussion. I shall turn to this issue shortly, but first I want to turn to *Dainton's* discussion of continuity.

In Tye, then, we see oscillation between talk about the continuity of the stream of experience and talk about the continuity of what is *represented* by experience that is partially, though not entirely, driven by theoretical commitment. I say 'partially' because while the move from talk about experience to talk about the nature of what is represented by experience could conceivably be explained by Tye's 'Strong Representationalism', his move *back* to talk about 'continuing experience' *doesn't* look as though it can be explained in this way. When we look at how Dainton introduces talk about continuity, we also see such oscillation taking place. The theoretical commitment in Dainton's case is his 'simple conception' of experience, where for Tye it was his Strong Representationalism. In contrast to the case of Tye, however, Dainton's theoretical commitment *does* appear to provide a complete explanation of his oscillation. Here is Dainton on the 'continuity of consciousness':

Think of what it is like to hear an unvarying auditory tone. Even though the tone does not vary in pitch, timbre or volume, we directly experience the tone *continuing on*. It is as though, from moment to moment, there is a continual renewal of the same auditory content, a renewal which is directly experienced. Or think of an unvarying yet enduring pain sensation; for as long as the pain is felt, it is felt as a continuous presence; this presence is not static but dynamic; it is an enduring presence. This experienced flow or passage is common to all sensations; indeed a sensation lacking

this characteristic seems inconceivable – perhaps this is why a strictly durationless sensory experience, existing all by itself, seems impossible to conceive.⁴⁹

In the above passage, Dainton begins by talking about the object of experience being experienced as ‘continuing on’, but by the end of the paragraph the property of ‘continuity’ appears to be being ascribed to sensory experience itself, with the continuity of experience doing the work of explaining why a durationless sensory experience is purportedly inconceivable. Like Tye, Dainton *also* wants to claim that experience is, as a matter of fact, continuous – he claims, for instance, that a “stream of consciousness is a continuous succession of experiences.”⁵⁰

As in the case of Tye’s transition between bearers of ‘continuity’, Dainton’s transition is plausibly to be explained by theoretical commitment. Dainton is an advocate of what he calls the ‘Simple Conception’ of experience, according to which:

When a given phenomenal item comes into being, it comes into being as a conscious experience... phenomenal contents become conscious simply by coming into existence.⁵¹

⁴⁹ Dainton, *Stream of Consciousness*, 114.

⁵⁰ *Ibid.*, 4.

⁵¹ *Ibid.*, 57.

I shall talk about the 'Simple Conception' in more detail in chapter six, but as I read it, the Simple Conception is the view that there is no distinction to be drawn between conscious experience and the object/s of conscious experience. Accordingly, there is no distinction to be drawn between the properties of conscious experience, and the properties of the object/s of conscious experience – and this is what explains Dainton's transition from talk about the *object/s* of conscious experience as continuous, to talk about conscious experience as *itself* continuous.

Dainton, like Tye, thus appears to introduce the third potential bearer of the property of 'continuity': the continuity of what is *represented* by experience. To sum up, then, at this stage we distinguished between the following three potential exhibitors of continuity:

- 1) The State of Consciousness
- 2) The Stream of Experience
- 3) What is Represented by Experience

Having set out these three options, we now need to turn to an examination of what might be meant by 'continuity'.

§3. Different Senses of 'Continuity' Part One: Strict Continuity

We can begin by considering the following remark from Aristotle:

For both length and time – and, in general, whatever is continuous – are called unlimited in two ways: either by division or as to their extremes.⁵²

The idea that there are two different senses of 'continuity' is something that can be used to shed light upon the debate about the continuity of consciousness. One sense of 'continuity' concerns the *divisibility* of some temporally extended item – this sense of continuity I shall call *strict* continuity. The second sense of 'continuity' concerns the *extremes* of some temporally extended item – this sense of continuity I shall call *extreme* continuity.

I shall argue that even though, when pushed, philosophers interested in temporal experience tend to claim that the sense of 'continuity' they have in mind is *strict* continuity, the sense of continuity that features in the phenomenology of temporal experience is, in fact, *extreme* continuity.

How do these two senses of 'continuity' differ? The way that 'consciousness is continuous' has usually been interpreted in the context of the temporal experience

⁵² Quotation taken from: Jonathan Barnes, *The Presocratic Philosophers* (Routledge, 1982), 205.

debate is as something like 'there are no *gaps* in consciousness'. This sense of continuity is what I shall call *strict* continuity. In what follows, I shall argue that this claim about consciousness fails to capture the phenomenology of temporal experience. I set out a rival sense of 'continuity' - *extreme* continuity - that better captures the phenomenology of temporal experience, and thus better captures what the 'streamlikeness' of consciousness consists in.

While the primary concern of this chapter is in getting clear on exactly what the phenomenology of temporal experience is, so that we have a better idea of what accounts of temporal experience are constrained by, there is an additional concern. This second concern is with theorists who have claimed that the stream of consciousness could be in some sense *unreal* or *illusory*. Dennett, Neumann, and Blackmore have all made claims of this kind.⁵³

⁵³ See: D. C. Dennett, "The Cartesian theater and "Filling In" the stream of consciousness," *The nature of consciousness: Philosophical debates* (1997): 83-88; S. Blackmore, "There Is No Stream of Consciousness. What is all this? What is all this stuff around me; this stream of experiences that I seem to be having all the time?," *Journal of Consciousness Studies*, 9 5, no. 6 (2002): 17-28; O. Neumann, "'Some Aspects of Phenomenal Consciousness and Their Possible Functional Correlates" presented at the conference "The Phenomenal Mind-How Is It Possible and Why Is It Necessary?,"" *Zentrum fuer Interdisciplinaere Forschung, Bifeld, Germany, May* (1990): 14-17.

§3.1: An 'Illusory' Stream of Consciousness?

In what follows, I shall show that Dennett, Neumann, and Blackmore all presuppose that the streamlikeness of consciousness is best characterised in terms of *strict* continuity. I shall argue that, given that experience is best characterised in terms of *extreme*, rather than *strict*, continuity, their claims about the unreality or illusoriness of the stream of consciousness ought not concern us.

One interpretation of the claim that 'consciousness is continuous' involves using the 'strict' or 'mathematical' notion of continuity – the notion that if something is 'continuous', then it has no gaps in it. This is what I have called the *strict* sense of continuity. On this interpretation, the claim that 'consciousness is continuous' is equivalent to saying 'there are no gaps in consciousness.'

This claim has been taken by some philosophers (Dennett, Flanagan, James, and Neumann) to capture what is meant by the claim that 'consciousness is streamlike'. However, rather than attempting to give a theory of temporal experience that tries to explain this phenomenological feature of experience, these philosophers have also taken it that this 'streamlikeness' could be in some sense 'illusory', and have used this idea to set up a particular puzzle about consciousness:

James: Is consciousness really discontinuous, incessantly interrupted and recommencing (from the psychologist's point of view)? And does it only seem

continuous to itself by an illusion analogous to that of the zoetrope? Or is it at most times as continuous outwardly as it inwardly seems?⁵⁴

Dennett: The discontinuity of consciousness is striking because of the apparent continuity of consciousness. Neumann points out that consciousness may in general be a gappy phenomenon, and as long as the temporal edges of the gaps are not positively perceived, there will be no sense of the gappiness of the 'stream' of consciousness.⁵⁵

Flanagan: Consciousness feels like a stream. This is its subjective side. But objectively, there is evidence of gaps...⁵⁶

Neumann: What could then be the reason for the usual - illusory - assumption that there is a continuous flow of consciousness?⁵⁷

All of these philosophers draw a distinction between two different perspectives (the subjective, and the objective) upon the same thing - consciousness. I am going to adopt this convention of talking in terms of 'two perspectives' on consciousness,

⁵⁴ W. James, "The principles of psychology, vols. 1 & 2," *New York: Holt* (1890): 130-1.

⁵⁵ D. C. Dennett, *Consciousness explained* (Penguin, 1993), 356.

⁵⁶ O. Flanagan, "The robust phenomenology of the stream of consciousness," *The nature of consciousness: Philosophical debates* (1998): 89.

⁵⁷ Neumann, "Some Aspects of Phenomenal Consciousness and Their Possible Functional Correlates": Presented at the conference "The Phenomenal Mind-How Is It Possible and Why Is It Necessary?," 76.

even though the 'two perspectives' idea is not necessary for setting up the puzzle about consciousness that these philosophers are interested in.

The puzzle also arises even if we drop the claim that we can take 'objective' and 'subjective' points of view on consciousness - it still might seem mysterious that consciousness can seem continuous even when there are times at which the brain activity 'underlying' consciousness is not going on. At this point, however, it is worth noting that the claim that consciousness seems strictly continuous and the claim that there are times at which certain brain activity is not going on are not straightforwardly rivalrous.

That the two claims aren't straightforwardly rivalrous can be illustrated by considering an example: the example of tapping out a rhythm on a snare drum. *Prima facie*, it looks as though tapping out a rhythm on a snare drum is something that can be done *continuously*: 'Andrew continuously tapped out a rhythm on the snare drum for twenty minutes.' One question that we can ask about the snare drum case is whether or not the tapping out of the rhythm is something that can be described as strictly continuous.

A temporally extended happening counts as strictly continuous if it is the case that, no matter how small the portion of the time occupied by that temporally extended happening we consider, we will always find a correspondingly small portion of the temporally extended happening in question occupying the relevant portion of time. Bearing this in mind, one thing we might be inclined to say about the snare drum

case is that it plainly isn't strictly continuous, for there are times at which the tapper is not tapping.

Against this, however, we might think that the snare drum case *is* a case of strict continuity, given that it is constitutive of tapping out a rhythm that there are times at which the tapper is not tapping. The absence of a tapping-event at a time is thus not a genuine gap in the process of tapping out a rhythm, given that the absence of tapping-events in between tapping-events is a requirement upon the process of tapping out a rhythm taking place at all.

Rather than seeking to adjudicate between these two different proposals about the strict continuity or lack of strict continuity in the case of the tapping out the rhythm, I want to return to the case of the brain activity underlying consciousness. Just as the existence of times at which the tapper is not producing a tapping-event doesn't straightforwardly rule out the presence of a strictly continuous tapping process going on at that time, so we might think that the absence of a particular kind of brain activity at a time doesn't rule out the presence of a strictly continuous *process* going on in the brain at that time.

If we agree that the absence of an event, a series of which constitutes a process, at a particular time is compatible with the process being strictly continuous, then we don't appear to have a puzzle about subjective and objective continuity. Just as subjective consciousness is (purportedly) strictly continuous, so objective consciousness is also strictly continuous.

Presumably, however, James, Dennett, Flanagan, and Neumann will reject this proposal, and claim that any process that consists of a series of distinct events cannot be continuous. If we allow this claim, then we allow the possibility of a puzzle about the relationship between subjective and objective consciousness. Bearing in mind the distinction between the three aspects of consciousness introduced earlier, we can now consider what generates the puzzle – it is a puzzle about the state of consciousness, the stream of experience, or what is represented by experience?

The puzzle, I want to suggest, isn't a puzzle about the *state of consciousness*. This is because it is plausible that a state can obtain continuously over a period of time in virtue of the occurrence of a discontinuous process. Consider an example taken from Matthew Soteriou, discussing a state that obtains in virtue of the occurrence of a collection of distinct events:

In the example of the connection between the temperature of a liquid and the motion of its molecules, there is a necessary connection between the obtaining of a state of the liquid (its temperature) and the occurrence of events involving that liquid (the motion of its molecules) – a certain kind of state obtains if and only if events of a given kind occur.⁵⁸

The above example is a discussion of the relationship between events and state, that doesn't yet tell us anything about the issue of continuity. However, we can note that

⁵⁸ M. Soteriou, "Content and the Stream of Consciousness," *Philosophical Perspectives* 21, no. 1 (2007): 552.

it certainly appears possible for a liquid to remain at a constant temperature strictly continuously over an interval of time. It is plausible that the obtaining of the state (the temperature of the liquid) could occupy time strictly continuously over an interval of time, in virtue of the occurrence of events that are not strictly continuous. For instance, the water in my kettle could remain in the same state (at a temperature of 21 degrees centigrade) continuously, in virtue of the occurrence of events – movements of water molecules – that are not themselves continuous.

If this is the right way to think about the temperature example, then we have parallel reason to think that the worry about the possible unreality or illusoriness of the continuity of consciousness cannot be a worry about the state of consciousness. This is because the state of consciousness – just like the temperature of the liquid – plausibly depends upon the occurrence of certain kinds of event in the brain: the state of consciousness obtains if and only if events of a given kind occur. If this is right, then we can note that – just as in the case of the liquid – the fact that the events upon which the occurrence of the state of consciousness depends may not be strictly continuous doesn't tell us that the state of consciousness *itself* doesn't fill time strictly continuously.

The puzzle about continuity, then, doesn't look as if it is a puzzle about the state of consciousness. Our two remaining options are that it is a puzzle about the stream of experience, or about what is *represented* by experience. I want to suggest that we put Tye's attempt to reduce questions about the phenomenology of experience to questions about the representational content of experience to one side, and treat the

puzzle as a puzzle about the continuity of the stream of experience itself. I shall return briefly to the issue of Tye's reductionism later on.

So, conceiving of the puzzle as a puzzle about the continuity of the stream of experience, there are at least two important things going on in the setup of the puzzle that I want to focus on – both of which have been noted by Flanagan:

Suppose that neuroscientists discover that consciousness is in fact realised like a movie reel consisting of individual images, the moments of consciousness, with small separations between them, the gaps. It is not clear that this would or should have any impact upon what we say about how consciousness seems from a first-person point of view.⁵⁹

Flanagan's point here is that the puzzle about the strict continuity of consciousness is not being driven by any intuitions we might have about what we would expect to be the case, given that the brain processes underlying phenomenal consciousness are not strictly continuous. What is it, then, that is puzzling about this puzzle? Flanagan makes the following suggestion:

The interesting question is why subjective consciousness is insensitive, if it is, to certain things about itself, objectively construed. Eventually we want a fine-grained

⁵⁹ Flanagan, "The robust phenomenology of the stream of consciousness," 89.

answer of the sort we can give for how other discrete things, e.g. movies, give a continuous impression.⁶⁰

What is driving the puzzle, then, is subjective consciousness's insensitivity to certain of objective consciousness's properties. In the way this puzzle has been set up by Flanagan, Dennett, James, and Neumann, this insensitivity takes the form of subjectively viewed consciousness being strictly continuous, and objectively viewed consciousness being strictly discontinuous. In what follows, I shall argue that these philosophers are correct to set up the puzzle in terms of 'insensitivity', but that we can distinguish between two different kinds of insensitivity.

The first kind of insensitivity is the kind that might make us wary about the reality or veracity of the stream of consciousness. This kind of insensitivity I shall call 'contradictory insensitivity'. For there to be contradictory insensitivity, subjective consciousness has to seem to be a particular way, a way that objective consciousness is *not*. 'Contradictory insensitivity' can raise questions about the reality or veracity of how subjective consciousness seems, because there is a tension between the subjective seeming, and the objective state of affairs.

The second kind of insensitivity doesn't look as though it ought to make us worried about reality or veracity. This kind of insensitivity I shall call 'ignorant insensitivity'. For there to be ignorant insensitivity, it has to be the case that subjective

⁶⁰ Ibid.

consciousness *doesn't* seem to be a certain way, a way that objective consciousness *is*. Given that there are an extremely large number of features of objective consciousness – involving electro-chemical signals that occur in a brain, involving an organ housed in the skull – that don't appear to feature in subjective consciousness, it isn't clear that we ought to be worried about *ignorant* insensitivity.

From the subjective point of view, consciousness doesn't seem to involve an organ housed in my skull, but from the objective point of view, the involvement of an organ housed in my skull turns out to be a feature of consciousness. I shall argue that the issue of subjective consciousness' insensitivity to its objective strict discontinuity is best thought of in this way – as an example of '*ignorant* insensitivity'. On my proposal, the insensitivity to the strict discontinuity of objectively viewed consciousness is not to be captured by saying that subjectively viewed consciousness seems strictly continuous. Rather, subjectively viewed consciousness *doesn't* seem strictly *discontinuous*.

I shall thus be claiming that while Flanagan is right that subjective consciousness is indeed *insensitive*, this insensitivity ought not to make us worried about the veracity or reality of the stream of consciousness. As I have noted above, the interpretation of 'continuity' assumed by Flanagan, Dennett, James, and Neumann is the *strict* interpretation. I shall now say more about what I mean by 'strict' continuity, before arguing that, on this interpretation of continuity, we ought not to think that subjectively viewed consciousness seems continuous: rather, it *doesn't* seem *discontinuous*.

§3.2: What is 'Strict Continuity'?

If we interpret 'continuous' strictly, then it means 'no gaps'. This 'strict' interpretation of continuity is made in mathematics, where it is often contrasted with the property of 'density'. I shall now provide a brief discussion of this distinction, and how it can be applied to time, before moving on to consider how it might be applied to consciousness. Newton-Smith provides the following discussion of density and continuity:

A set S ordered by relation R is dense if and only if for any pair of distinct elements a , b in S there is another element c which is such that Rac and Rcb . The rational numbers (the positive and negative fractions) under the standard ordering are dense.⁶¹

The rational numbers are all those numbers expressible as fractions. For the rational numbers to be 'standardly ordered' is for them to be arranged in ascending or descending order. When we consider the rational numbers arranged in this way, it is apparent that between any two of them – say $1/4$ and $1/2$ – we can always find a further rational number – $1/3$ for example. This holds for any pair of standardly ordered rational numbers – and this is what it is to say that they are dense. However, even though we can always find another rational number between any pair of

⁶¹ W. Newton-Smith, *The structure of time* (Routledge Kegan & Paul, 1984), 113.

rational numbers, there are still gaps in the standardly ordered series of rational numbers:

While the rationals are dense, there is a sense in which there are 'gaps' in the rational numbers. There is, for example, no rational number whose square is 2. In order to fill these 'gaps' we add to the rationals the irrationals which are numbers that cannot be represented as fractions. The resulting system is the real number system whose salient characteristic is that it is not only dense but lacks 'gaps' – an idea which we express by saying that the real number system is continuous.⁶²

In the cases of both a continuous and a dense standardly ordered number series, there are an infinite number of points between any two rational numbers. But we can still draw a distinction between density and continuity by noting that while being dense is a necessary condition for being continuous, a continuous series has the additional property of having no gaps in it.

Newton-Smith suggests that the distinction between a dense and a continuous number series can also be drawn with respect to time, by replacing talk of numbers with talk of instants. He suggests that we might think that time is dense – in which case between any two distinct instants of time there will be another instant – or not

⁶² Ibid.

only dense, but also continuous – in which case there are no gaps left ‘unfilled’ by further instants between any two distinct instants of time.⁶³

Finally, this distinction can be applied to consciousness, by replacing talk of instants with talk of instants in which the subject is consciously experiencing. So, if consciousness is dense, then between any two distinct instants of time in which the subject is consciously experiencing, there will be another instant in which the subject is consciously experiencing. If consciousness is continuous then there will be no gaps in which the subject is not consciously experiencing between any two distinct instants in which they are.

Talk of instants in which the subject is consciously experiencing does not commit me to the claim that a subject could be consciously experiencing just for an instant. The idea is simply that if we can divide time into instants – which is essential if we want to talk about strict continuity – then at some, but not all, of these instants, a particular subject will be consciously experiencing.

The claim being made about consciousness from the objective point of view by Dennett, Flanagan, James, and Neumann, is that it is neither dense nor strictly continuous. Here is an example taken from Dennett of the kind of objective gap he has in mind:

⁶³ Ibid., 111.

The temporal analogues of scotomata [blind spots in the visual field] might be the "absences" that occur during petit mal epileptic seizures. These are noticeable by the sufferer, but only by inference: they can't "see the edges" any more than you can see the edges of your blind spot, but they can be struck, retrospectively, by discontinuities in the events they have experienced.⁶⁴

In the case of petit mal epileptic seizures, Dennett claims, there can be gaps in a subject's consciousness for some time objectively – gaps which last longer than an instant, and hence render objective consciousness neither dense nor continuous – but subjectively, the subject can only become aware of these gaps via retrospective inference.

There are two questions that we can raise about this example: the first is 'Why does this example support the claim that consciousness, viewed subjectively, seems continuous, when the subject is capable of becoming aware (inferentially and retrospectively) of the gaps in her experience?' The second is 'Why does this example support the claim that 'consciousness seems continuous', rather than the claim that 'consciousness does not seem discontinuous'?

The first question is a difficult one for anyone who thinks that the 'streamlikeness' of consciousness is to be captured by strict continuity – by saying that 'it seems as if

⁶⁴ Dennett, "The Cartesian theater and "Filling In" the stream of consciousness," 87.

there are no gaps in consciousness.' After all, it very often does seem to us as if there are periods of time in which there are gaps in our consciousness – it can seem to me that I have just woken up from a good night's dreamless sleep, it can seem to me as if I have just nodded off for a brief second.

If periods of dreamless sleep do count as gaps in consciousness – and they certainly seem like good candidates – then it certainly isn't clear that we have to think that we are *always* aware of gaps in subjectively viewed consciousness *inferentially*. That is, it doesn't seem that when I wake up, I have to *infer* that I have just been asleep for a whole night. However, while thinking of our awareness of gaps in subjective consciousness as being inferential might not be right, it looks as though Dennett is correct that this awareness is always retrospective.

So, the sense in which subjective consciousness can be insensitive to its objective properties is the following: I cannot be aware of a gap in my consciousness 'as it happens' – only retrospectively. The answer to the first question for Dennett is thus that in order for a gap to interfere with the apparent continuity of subjectively viewed consciousness, I need to be aware of it 'as it happens'. It is plausible that I cannot be aware that there is a gap in my consciousness during the gap, because for this to be the case, I would have to be conscious of my not being conscious – conscious while simultaneously unconscious – and this is clearly not possible.

I shall now answer the second question we posed for Dennett, which was:

'Why does this example support the claim that 'consciousness seems continuous', rather than the claim that 'consciousness does not seem discontinuous'?

Dennett's claim in the example of the petit mal seizure is that the gaps in objectively viewed consciousness are not manifest in the phenomenology of experience in the appropriate way - I can't be aware of them as they happen. Presumably the idea behind this argument is that this line of thought applies not just to these *unusual* cases (the petit mal cases) in which there are gaps in objective consciousness, but also extends to any cases in which it can be shown that gappy brain processes underlie conscious experience.

So the purported clash between subjectively and objectively viewed consciousness here is between the following two claims:

1. Objectively, there are gaps in consciousness.
2. Subjectively, it doesn't seem like there are gaps in consciousness.

However, if we take the 'streamlikeness' of consciousness to consist in its strict continuity, we do not yet have a clash between the objective nature of consciousness and the claim that 'consciousness is subjectively streamlike'.

If we translate claims 1 and 2 into claims about strict continuity, we get the following:

3. Objectively, consciousness is not strictly continuous.

4. Subjectively, it doesn't seem like consciousness is not strictly continuous.

However, 4 is not equivalent to the claim that 'subjectively, it seems that consciousness is continuous' - or, put in terms of gaps, - 'subjectively, it seems like there are no gaps in consciousness'. What we have here is an example of benign 'ignorant insensitivity', as opposed to the more troubling 'contradictory insensitivity'.

So the answer to the second question is that the example does not support the claim that consciousness seems continuous. All that seems to be going on in the case of the petit mal seizure (and presumably in the less unusual cases also) is that the objectively viewed gaps are not manifest in the phenomenology of the subject's experience. However, while this particular example of Dennett's may not supply any reasons to think that, viewed subjectively, consciousness is strictly continuous, perhaps there are other ways to establish it.

How might we establish the truth of the claim that, from the subjective point of view, consciousness is continuous? One way of doing this would be to think about whether the phenomenology of our experience is compatible with any rival description - if it is not, then we can agree that consciousness does seem continuous. However, if the phenomenology of experience is compatible with a rival description, then it seems fair to say that we are simply unable to tell whether consciousness is continuous or not.

The idea here is that if consciousness really does seem continuous, then it will not be appropriate for it to fall under another description under which it is *gappy*. Newton-Smith uses an argument analogous to this in order to demonstrate that it is impossible to decide which of two competing accounts of time ('time is dense' or 'time is continuous') is correct. His argument for this claim runs as follows:

1. In order to rule out one of 'time is dense' or 'time is continuous', we need some reason for believing in the truth of one theory rather than the other.
2. "Whatever constitutes a reason for believing in the truth of theories that treat time as continuous will constitute equally a reason for believing in the truth of counterpart theories that treat time as merely dense."⁶⁵
3. We cannot rule out either 'time is dense' or 'time is continuous'.

In more detail, Newton-Smith proposes that the system of Newtonian mechanics might, *prima facie*, seem to provide a reason for believing that 'time is continuous' rather than 'time is dense' because its laws are formulated in terms of continuous space and continuous time. Newton-Smith's strategy is then to show that these laws can be reformulated in terms of dense time in such a way that they will handle all of the data dealt with by the original Newtonian mechanics equally well.

⁶⁵ Newton-Smith, *The structure of time*, 121.

There are further complications about exactly how this kind of reformulation is to work, and whether or not it can be incorporated into a complete physical theory. I shall not discuss them here, however, as I am interested just in the general strategy of showing that the set of data can be equally well handled by saying that 'time is dense' as by 'time is continuous'.

Before moving on to introduce the analogous argument about consciousness, it is interesting to note two possible conclusions Newton-Smith thinks we can draw once we have established that 'we cannot rule out either 'time is dense' or 'time in continuous' in this way. He claims that we face a choice between the 'Ignorance Response', and the 'Arrogance Response'. The Ignorance Response is the following:

The argument shows a limit to the possible extent of human knowledge. Either the world is such that it is true that time is continuous or the world is such that it is true that time is merely dense...we will remain in ignorance as to which of these two possibilities obtains. I will call this the Ignorance Response. For it involves assuming that there is some matter of fact at stake here, a matter of fact about which evidence is just not to be had.⁶⁶

And here is the Arrogance Response:

⁶⁶ Ibid., 126.

If we can form no conception of what would constitute evidence for thinking that the facts about the world made one of these hypotheses true or likely to be true rather than the other, we are not entitled to assume that there is some matter of fact at stake here...the sentences 'time is continuous' and 'time is dense' are not seen as having a meaning which renders them capable of being used to make conjectures about the facts. They are not thought of as being, strictly speaking, true or false.⁶⁷

So, once we have established that the data we are accounting for can be accounted for equally well by two rival theories, and we have decided that, plausibly, we will not find any extra evidence that either theory will fail to account for, we can choose between either thinking that there is, or is not, some fact of the matter that these theories are attempting to account for. In what follows, I shall show that there is a parallel to this kind of choice in the case of asking whether consciousness is continuous, or consciousness is merely dense.

§3.3: Rejecting the 'Strict' Continuity of Consciousness

What evidence is there for thinking that consciousness is continuous, as opposed to thinking that consciousness is merely dense? The data that these two hypotheses are attempting to account for is the phenomenology of experience – how experience seems to the subject to be. The claim being made by James, Dennett, Flanagan, and Neumann is that the 'streamlikeness' of consciousness consists in it seeming to the

⁶⁷ Ibid.

subject that there are no gaps in her consciousness, where this is an importantly different claim from it not seeming to the subject that there are gaps.

If these philosophers are right that the 'no gaps' claim captures the 'streamlikeness' of consciousness, then presumably the phenomenology of experience ought to rule out it being the case that consciousness is merely dense. This is because if subjectively viewed consciousness is dense, then, while it may very well seem to the subject that between any two instants at which consciousness obtains there will be another instant at which she is consciously experiencing, there will nevertheless be 'gaps' in between those two instants.

The argument analogous to that of Newton-Smith I want to propose is the following:

1. In order to rule out one of 'consciousness is dense' or 'consciousness is continuous', we need some reason for believing in the truth of one theory rather than the other.
2. Whatever constitutes a reason for believing in the truth of theories that treat consciousness as continuous will constitute equally a reason for believing in the truth of counterpart theories that treat consciousness as merely dense.
3. We cannot rule out either 'consciousness is dense' or 'consciousness is continuous'.

What evidence is there for thinking that consciousness is continuous, as opposed to thinking that consciousness is merely dense? The evidence that these two hypotheses are attempting to account for is the phenomenology of experience – how experience seems to the subject to be. It seems to me that there is no way for us to decide which of ‘consciousness is continuous’ or ‘consciousness is dense’ best characterises our experience.

When we introspect upon our experience in order to adjudicate whether consciousness seems continuous, or merely dense, we are being asked the following: does it seem to us as if there are an infinite number of instants between any two instants at which we are consciously experiencing, but that there are nevertheless gaps, or that there are an infinite number of instants between any two instants at which we are consciously experiencing, but that there are no gaps? It seems to me that we are simply incapable of deciding between these two options on the basis of the phenomenology of temporal experience.

I hope that it is clear that there is a parallel with Newton-Smith’s argument here: in his argument, the evidence did not provide us with any way to choose between saying ‘time is continuous’ and ‘time is dense’. In this argument about the continuity of consciousness, the phenomenology of experience does not provide us with any way to choose between saying ‘consciousness is continuous’ and ‘consciousness is dense’. If this is the case, then it doesn’t seem right to think that the claim that

'consciousness is continuous' captures the 'streamlikeness' of consciousness – as it is not clear why we should think that the claim is true.

If the evidence does not provide us with a way of ruling out one of the claims, then we are faced with a parallel choice between Arrogance and Ignorance. We can decide to ascribe the lack of deciding evidence to our Ignorance, holding that there is a fact of the matter about whether or not consciousness seems continuous, but that we are somehow limited in our ability to know about this kind of phenomenological matter.

Alternatively, we can decide to be Arrogant, and claim that because we cannot form a conception of what the evidence might be that would rule in favour of either claim; there simply is no fact of the matter about whether or not consciousness seems continuous. Either way, we are certainly not entitled to claim that, from the subjective perspective, consciousness is strictly continuous.

The idea that we cannot know whether or not consciousness is continuous from the subjective point of view might seem to amount to a denial that consciousness is 'streamlike'. However, I think that we can find alternative ways to capture the notion of 'streamlikeness' by looking at other ways to capture what might be meant by 'consciousness is continuous'. These alternatives do not involve claiming that the stream of consciousness is somehow 'illusory' like Dennett, James, Neumann, and Flanagan.

One alternative suggestion for capturing the 'streamlikeness' of consciousness, given the above argument that it is not to be captured in terms of strict continuity, is that consciousness is merely *dense*. Against this proposal, I would suggest that the moral of the discussion of denseness versus strict continuity is that it is a mistake to attempt to characterise the phenomenology of temporal experience in terms of *instants*. The reason that the answer to the question 'does consciousness seem strictly continuous, or merely dense?' is impossible to determine on the basis of the phenomenology is that instants only feature in the phenomenology in a very limited way.

Plausibly, the only plausible candidates for strictly instantaneous items featuring in temporal experience are the boundaries marking the beginnings and endings of temporally extended happenings. However, in order for us to have perceptual experience as of such beginnings and endings, we need to experience an interval encompassing those beginnings and endings. Given that we are capable of having experiences that are *not* of beginnings and endings – experiences thus not featuring instants – during which consciousness nevertheless seems continuous, instants are not the right things to appeal to when attempting to characterise the sense in which consciousness is 'continuous'.

So, as long as we disagree with how Dennett, James, Flanagan, and Neumann characterise the streamlikeness of consciousness – and we should disagree with them about this – there is no reason for us to think that there is anything suspicious or illusory about streams of consciousness. The challenge now is to find the correct characterisation of a stream of consciousness.

Strict continuity is not the right candidate when we look for an interpretation of ‘consciousness is continuous’ that will describe the streamlikeness of consciousness. If this is not the right way to think about continuity, then what is? I propose that we should think of the continuity of consciousness in terms of the *temporal limits* of experience not being manifest in the phenomenology of experience. We can clarify what it means to say this by reflecting upon the analogies and disanalogies between certain spatial and temporal features of different types of experience. The conception of continuity that I shall develop in this way I shall call *extreme* continuity.

§4. Different Senses of ‘Continuity’ Part Two: Extreme Continuity

In the previous chapter we discovered that one important aspect of the phenomenology of temporal experience was that it involves *Time-Windows*. This claim was set out as follows:

Time-Windows: To characterise a subject’s experience *at* a time we need to appeal to some *interval* that is equal to or shorter than the period of time for which the subject has been experiencing.

If the Time-Windows claim is correct, then there are, as a matter of fact, temporal boundaries involved in temporal experience. These boundaries are the boundaries of Time-Windows, and mark the period in time within which items are relevant to

characterising the subject's experience at a time. Beyond the relevant temporal boundaries, nothing is relevant to the characterisation of the subject's experience at the time in question. It is in this sense that there is a 'temporal field' – a bounded interval of time, within which items are relevant to characterising the phenomenology of experience at a time, and outside of which, they are not.

However, for all that there may be temporal boundaries involved in temporal experience as a *matter of fact*, there is a question as to whether these boundaries are manifest in the *phenomenology*. It is certainly *difficult* to locate the boundaries of the Time-Window relevant to characterising experience at a time. However, the claim I want to make about the boundaries of Time-Windows is not just that it is difficult to discern their location: rather, I think it is plausible that the boundaries of Time-Windows are simply not manifest in the phenomenology.

This claim, that the boundaries of Time-Windows are not manifest in the phenomenology, is what is being picked out by the claim that consciousness exhibits *extreme continuity*. In order to demonstrate this lack of manifestation, I want to examine the similarities and differences between Time-Windows and the spatial visual field, as far as the phenomenology of experience is concerned.

§4.1: Spatial and Temporal Boundaries

Visual experience normally presents us with a region of space: a region of space that is delimited by the boundaries of the visual field. The visual field, as I am talking about it here, picks out a phenomenological feature of visual experience. While it is true that we are *as a matter of fact* limited as regards the region of space that features in visual experience at any time, talk about the 'visual field' picks out the *phenomenological* manifestation of the spatial limits of vision. This sense of 'visual field' is at work in both Mike Martin's and Louise Richardson's discussions of the visual field.⁶⁸

The visual field delimits a cone shaped region of space that is relevant in characterising the phenomenology of visual experience. The visual field is not a region of *physical* space – as a phenomenological manifestation of the spatial limits of vision, the field remains the same no matter what objects and locations are experienced as falling within it. The important feature of the spatial visual field for our purposes is that we are aware of its *boundaries*. As Richardson puts it:

[To say that there is a visual field is]... to say that the boundaries or limitations of the cone, the apex of which is the point of origin for visual experience, are present in visual experience.⁶⁹

⁶⁸ See: M. G. F. Martin, "Sight and touch," *The contents of experience* (1992): 196–215; L. Richardson, "Seeing Empty Space," *European Journal of Philosophy* 18, no. 2 (2010): 227–243.

⁶⁹ Richardson, "Seeing Empty Space," 233.

Is there a *temporal* field in this sense? Are the boundaries or limitations of the temporal extent of which we are aware at a time present in visual experience? My claim is that they are not – but before discussing this claim in more detail, I want to note a couple of parallels between the visual field and the temporal region constituting a ‘Time-Window’.

One response that might be made to the claim that the boundaries of Time-Windows are not manifest in experience is that it isn’t that the boundaries are not manifest – rather it is just difficult to specify their precise location. In the case of the visual field, it is not as if we have a precise grasp of where the boundaries of the field lie. This can be illustrated by considering the example of an item that lies a great distance away in the direction of the base of the cone-shaped visual field.

Consider looking up at the clouds as they float by overhead. One thing we can note about the kind of visual experience we have in such a situation is that it doesn’t tell us with great specificity the spatial location of the clouds. Such a visual experience allows for the clouds’ occupation of a variety of spatial locations: perhaps they are half a mile away, perhaps a mile away – our visual experience doesn’t appear capable of determining which. This is clearly in contrast to visual experience of items located in closer proximity, where the range of spatial locations allowed by visual experience appears restricted to a much greater degree.

The base of the cone-shaped visual field, like the clouds in the example above, is something that lies a great distance away from the field's point of origin. Again, as Richardson puts it:

To the left, right, up and down are diverging boundaries which are joined by a boundary that forms the base of the cone. We can see things that are very large and bright, such as stars, at extraordinary distances. Though we are poor at judging how far away from us, and from other things such things are, we nevertheless see them. So, at least on the face of it, the base of the cone is, or can be, extremely far away.⁷⁰

The proposed explanation being discussed here for *why* it is that we are poor at judging how far away from us distant objects lie is that visual experience doesn't represent the locations of those objects with any great specificity. We can now note that, just as it is difficult to determine the precise location of objects that lie towards the base of the cone of the visual field, so it is difficult to determine the precise location of the boundaries of the visual field.

It is difficult to determine the precise *location* of the boundaries of the visual field, and because of this it is correspondingly difficult to provide a precise description of the spatial extent of the visual field. We are certainly not capable of giving a measurement in terms of metres or feet, either as regards the volume of the field, or as regards the distance of the base of the cone from its point of origin. It is this kind of analogy that might be pursued by the defender of the claim that the boundaries of

⁷⁰ Ibid., 232.

the temporal field are manifest in temporal experience: their claim being that it isn't that the boundaries of the field are not manifest, it is just that it is difficult to specify their location.

Just as it is difficult to give a specification of the visual field's spatial extent in terms of metres or feet, so it is difficult to give a specification of a Time-Window's duration in terms of seconds. One thing to note at this point is that the difficulty in discerning the temporal extent of Time-Windows is discussed by Dainton - and in his discussion the difficulty is attributed to the *continuity* of consciousness. Dainton refers to what I have called 'Time-Windows' as 'the specious present' - for Dainton, the 'specious present' is the interval of time over which experience is *unified*: "experience is ... unified over time, at least over fairly brief intervals, of the duration of the so-called specious present."⁷¹

As for the duration of the specious present itself, this is notoriously difficult to estimate with any precision, and it is not difficult to see why... Since the question concerns the character of our experience, we are obliged to employ introspection, and the continuity of consciousness can easily confuse here. If I listen to a sequence of notes, and try to gauge whether a given pair of notes X and Y are directly experienced together, even if several notes occur between X and Y, I will experience Y at the end of a continuous period of awareness; I will have been *continuously*

⁷¹ Dainton, *Stream of Consciousness*, 3.

experiencing from the moment X starts through to the moment Y ends. This fact can, I suspect, easily lead to overestimations of the span of immediate experience.⁷²

Dainton here suggests that the difficulty in determining the extent of Time-Windows is to be explained by the *continuity* of consciousness. What does Dainton have in mind by 'continuity' at this point? It doesn't look like he can mean *strict* continuity – for it isn't at all clear why an appeal to strict continuity would explain the difficulty in estimating the duration of Time-Windows. Nor, if the argument of the previous section is correct, does it look as though he *ought* to mean strict continuity, given that strict continuity proved an unsuitable tool for a characterization of the streamlikeness of consciousness.

I think that we ought to agree with Dainton that the difficulty in determining the extent of Time-Windows is to be attributed to the continuity of consciousness. Implicit in Dainton's suggestion is the thought that there is some *other* non-strict sense of 'continuity' that may explain this difficulty. My proposal is that this sense of 'continuity' is to be best thought of as the boundaries of Time-Windows not being manifest in the phenomenology of temporal experience.

On this proposal, while there is an analogy between the spatial visual field and Time-Windows insofar as it is difficult to discern their precise extent, there is a crucial disanalogy. The disanalogy is that the boundaries of Time-Windows are simply not manifest in the phenomenology. On my view, the explanation of the

⁷² *Ibid.*, 171.

difficulty in discerning the extent of Time-Windows is that their boundaries are simply not manifest in the phenomenology at all, rather than merely being manifest in a way that renders their locations difficult to discern.

One analogy between the spatial visual field, and Time-Windows, then, is that it is difficult to determine the precise location of their boundaries, and to provide a measurement of their extent. The second analogy we can note is that in neither case are we aware of the boundaries of the field/window in the same way that we are aware of the boundaries of the objects of experience.

Earlier, I suggested that in order to have an experience as of the starting or stopping of some temporally extended happening, we need to experience some temporal interval that includes that starting or stopping. This is analogous to the situation in the spatial case – in the case of vision, for instance, in order for me to have an experience as of the boundary of the piece of paper before me, I need to be aware not only of the paper, but also of the region of space surrounding the paper. In both the temporal and the spatial cases, then, for the boundary of an experienced object to be manifest in the phenomenology, it is required that the subject experience not just the object, but of a temporal/spatial region surrounding the object.

However, as Richardson notes about the spatial case:

My awareness of the limits fixed by the visual field cannot be like this, because the limits fixed by the visual field, whatever else they are, are the limits beyond which nothing can be seen, without changing what falls within these limits by moving one's gaze.⁷³

This also holds true of the boundaries of Time-Windows: the boundaries of Time-Windows mark the boundaries beyond which nothing can be experienced without a change in the temporal location of the field. Phenomenological manifestation of the boundaries of the visual field, or of Time-Windows, if it is to occur, must thus occur in some other way.⁷⁴

One way to defend the claim that the boundaries of Time-Windows are not manifest in the phenomenology is to give an account of what experience *would* be like if they *were* manifest, and then to show that experience is *not* like that. It looks as though this type of defence is going on at times in Dainton's discussion of continuity.

The claim that 'consciousness is continuous' is, on my proposal, a claim with two aspects. Firstly, it is a claim about the structure of consciousness that explains something about the way that the objects of temporal experience are experienced. It is also the claim that this structural feature of consciousness is not *itself* manifested in

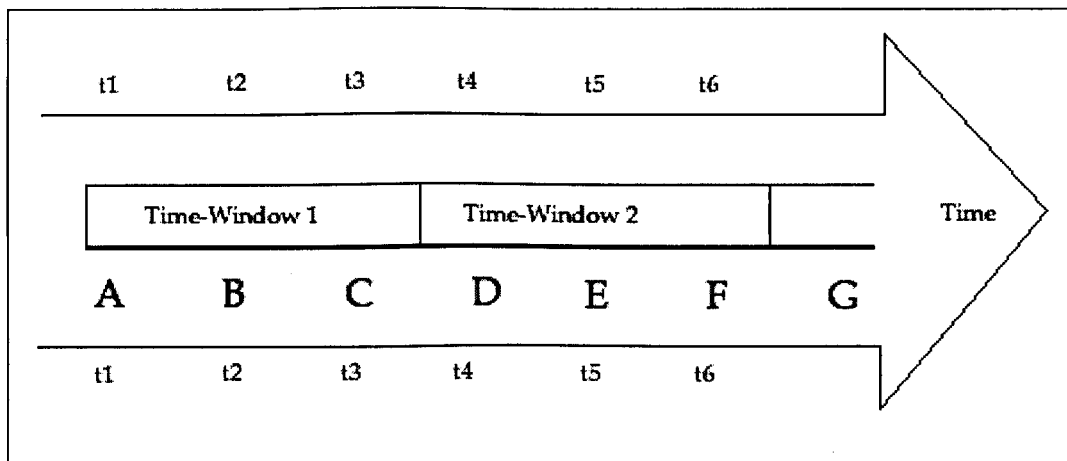
⁷³ Richardson, "Seeing Empty Space," 234.

⁷⁴ In the case of the visual field, Richardson's proposal is that the manifestation of the boundaries of the visual field is reflected in the subject's awareness of *empty space*.

the phenomenology. The claim about the structure of consciousness concerns the temporal organization of Time-Windows.

§4.2: What is 'Extreme Continuity'?

As discussed in the first chapter, one proposal about how Time-Windows might be organised is that they occur one after the other. The problem with this proposal – again, as noted in the first chapter – is that it precludes items from being heard as succeeding other items that they plainly *are* heard as succeeding. The example I appealed to in order to illustrate this problem was that of hearing an A-minor scale – as shown in the diagram below:⁷⁵



⁷⁵ This kind of example is also appealed to by Dainton, though he uses it only as an objection to what he calls the 'pulse theory' of temporal experience, and not to illustrate what is meant by 'the continuity of consciousness'. While Dainton appeals to notions of 'continuity' multiple times in his discussion, as far as I am aware, he doesn't distinguish between strict continuity and other forms of continuity. My attempt here is to try and specify the notion of continuity implicit in Dainton's discussion.

As noted previously, it is plausible that in order for a particular note to be experienced as a temporal part of some sequence of notes, the particular note and the other notes comprising the sequence need to be experienced *together*. However, as the above diagram illustrates, note 'D' is not experienced together with any of the notes in Time-Window 1. Accordingly, 'D' cannot be experienced as a temporal part of any sequence of notes involving notes featuring in Time-Window 1.

The problem this poses for the proposal that Time-Windows occur one after the other is that this result – that 'D' cannot be experienced as a temporal part of any sequence of notes that involves notes featuring in Time-Window 1 – clashes with the phenomenology. Tone 'D' is directly experienced as following on from tone 'C' – and this goes for all of the notes in the A-minor scale: *all* of the tones constituting the scale are experienced as following on from the tone that came before.

It is this feature of temporal experience, I suggest, that is being picked out by the claim that 'consciousness is continuous': the feature being that *any* temporally extended item featuring in experience will be directly experienced as following on from the item experienced before it. This feature of temporal experience may be what Dainton has in mind when he describes the following experience:

When listening to an extended sound, such as a long note played on a cello, is it not the case that throughout this experience we are continually aware of the *continuity* of our experience? We are constantly aware (though not necessarily paying attention to)

a flow of sound: the tone goes on and on, and we are constantly aware of this continuity.⁷⁶

On my proposal, what Dainton is drawing attention to in the above passage is the feature of experience that any temporally extended item we experience will be experienced as following on from what was experienced immediately before it. For any portion of the tone we are aware of, that tone-portion will be directly experienced as following on from the tone-portion preceding it.

What the above phenomenon demonstrates is that temporal experience doesn't seem to the subject to consist of a series of Time-Windows that occur one after the other, at least as far as the objects of temporal experience are concerned. Reflection upon the way that the A-major scale (the object of experience) is experienced reveals that the A-major scale isn't experienced in 'temporal chunks' that occur one after the other. If temporal experience were such that items were experienced in 'temporal chunks', this would provide the means for the boundaries of Time-Windows to be discernable in temporal experience. By reflecting upon the phenomenology of the experience of the A-major scale a subject would encounter 'temporal chunks' with a limited temporal extent, and by being aware of the limited temporal extent of these temporal chunks, there is a sense in which the boundaries of Temporal Windows would be manifest to the subject – the subject would be aware of where the boundaries of Temporal Windows lie.

⁷⁶ Dainton, *Stream of Consciousness*, 133.

This, then, provides another example of the way in which the boundaries of Time-Windows are not manifest in the phenomenology of temporal experience. We have noted that the boundaries cannot be manifest in the same fashion as the boundaries of the objects of experience, and neither are they manifest in the form of temporal experience seeming to present us with a series of 'temporal chunks' of temporally extended items.

The boundaries of Time-Windows are not manifest in the phenomenology of temporal experience in either of the two ways discussed above. This provides one aspect of the claim that 'consciousness is continuous'. However, I also want to propose that consciousness is continuous in the sense that the boundaries of Time-Windows are not manifest in the phenomenology in *any* fashion. Whereas in the case of the spatial visual field, awareness of the objects of vision can reflect the boundaries of the visual field, in the case of Time-Windows, awareness of what falls within Time-Windows *doesn't* reflect the boundaries of Time-Windows.

It is the appeal of this strategy in demonstrating the continuity of consciousness that might provide a more sympathetic explanation for why it is that Dainton and Tye both move between talk about the continuity of what is represented by experience and the continuity of the stream of experience – the strategy being to show that the continuity of consciousness is reflected in the *way* that the objects of temporal experience are experienced (i.e. they are not experienced in 'temporal chunks'). Dainton and Tye may be slipping between talk about continuity of the stream of experience and talk about the continuity of what is *represented* by experience, due to the fact that they are talking about the *way* that the objects represented by temporal

experience are represented, and they are talking about this in order to illustrate that the boundaries of Time-Windows are not manifest in the phenomenology of temporal experience. On this more sympathetic explanation of Dainton and Tye's oscillation between bearers of continuity, they are not driven entirely by theoretical commitment. Their oscillation is at least partially to be explained in terms of their attempting to demonstrate something about the *way* the objects of experience are represented.

I shall discuss both Tye's and Dainton's accounts of continuity in more detail in later chapters. As noted previously, Tye attempts to provide an account of continuity by claiming that the subject only has one experience per period of unbroken consciousness. Dainton, upon the other hand, supplies an account according to which Time-Windows not only overlap, but also share common parts.

I now want to conclude by noting a reason why we ought not to expect the boundaries of Time-Windows to be manifest in the phenomenology. The reason I have in mind is that there is a fundamental disanalogy between the phenomenology of temporal experience and the phenomenology of visual experience. This disanalogy is between the structure of temporal experience and the aspect of visual experience that appears to be crucial to its manifesting the relevant boundaries.

§5: A Fundamental Disanalogy Between the Structure of Temporal Experience and Spatial Visual Experience

In the case of visual experience, we can note, it is possible to draw a distinction between the location of the perceiver, and the location of the object of experience just by reflection upon the phenomenology. In vision, there is a distinction between the location of whatever it is that I am aware of, and the location from which I am aware of that something – and this distinction is something we can discover, given a certain degree of sophistication on the part of the subject, via reflection upon the phenomenology. In the visual variety of spatial perception, there is a distinction to be drawn between the location of the object of experience, and the location from which those objects are experienced. The distinct location from which objects are experienced, we can call a ‘perspective’.

When we come to examine temporal experience, we find no analogous distinction: we find ourselves unable to draw a distinction between the temporal location of the perceiver, and the temporal location of the object of experience, on the basis of the phenomenology. Over a period of time in which I perceptually experience some temporally extended event, my temporal location seems to be numerically identical to the apparent temporal location of the event: we are unable to discern any difference in the temporal locations of the two.

This feature of temporal experience is related to, but distinct from, the PPC, which was mentioned in chapter one. Recall that the PPC was defined as follows:

The PPC: It seems as if the duration of experience *in* which X is represented is concurrent with the duration that X is represented as occupying.

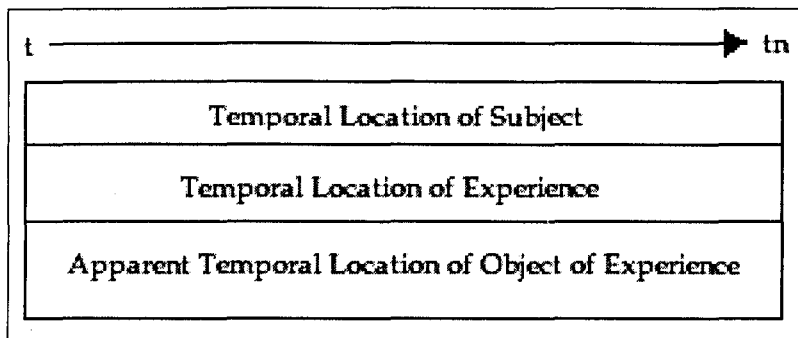
This feature of the phenomenology concerns the relationship between the temporal locations of experience and the object of experience. The feature discussed above, however, concerns the relationship between the temporal location from which an event is experienced, and the apparent temporal location of the event itself.

Combined, these features of the phenomenology reveal the following picture of temporal experience: that the temporal location from which an event is experienced, the temporal location of the experience of that event, and the apparent temporal location of the event, *all* seem concurrent. This provides us with another source of disanalogy between the spatial and the temporal cases. We have already noted that there is a difference as regards the location from which an object is experienced: but there is also a difference in what we want to say about experience itself.

In the temporal case, we have noted, experience is temporally extended – it seems concurrent with the apparent temporal location of the object of experience. In the spatial case we have examined (vision), however, we are not tempted, at least, on the basis of the phenomenology, to ascribe a spatial location to the visual experiences themselves. The region from which an item is perceived has a spatial location, as

does the perceived item, but we ought not ascribe spatial locations, so far as the phenomenology is concerned, to visual experience.⁷⁷

This double disanalogy between the spatial case of vision, and the case of temporal experience, comprises the collection of phenomenological features that render temporal experience 'rectangular'. Why say that temporal experience is 'rectangular'? Well, as the diagram below shows, the relationship manifest in the phenomenology between the temporal locations of the subject, experience, and object of experience, is best depicted with a rectangle!



Now, in the case of the visual field, the boundaries of the visual field are manifest via the subject's awareness of a region given as distinct from her own location. Given that temporal experience, so far as the phenomenology is concerned, doesn't allow

⁷⁷ Even if we were inclined to attribute spatial locations to visual and auditory experience, presumably not for any reason motivated by phenomenological considerations, it looks unlikely that their locations will be numerically identical to either the apparent location of any object of visual or auditory experience, or the location from which those objects is perceived.

for such a distinction between the location of the subject, and the location of the region of which the subject is aware, we ought not to expect the boundaries of Time-Windows to be manifest in the phenomenology via awareness of some region given as distinct from the subject's own location.

The thought that the manifestation of the boundaries of the visual field depends upon the subject's awareness of some region distinct from her own location is expressed by Richardson in the following passage:

First, vision having a field is not just a matter of visual experience seeming to be 'from somewhere'. Visual experience is 'egocentric' in that we seem to see the things we see from where we are. In virtue of the apex of the cone of space delimited by the visual field being where our eyes are, we seem to see the things we see roughly in relation to where our eyes are. *And if there were no such point of origin for visual experience, there would not be a visual field.* But to say that vision has a field is not to say that there is a point of origin present in visual experience. It's to say that the boundaries or limitations of the cone, the apex of which is the point of origin for visual experience, are present in visual experience.⁷⁸

So, the visual field provides an example of one way that the boundaries of experience can be manifest in the phenomenology – and a condition upon such manifestation is that the relevant form of experience manifests a perspective. The fact that temporal experience fails to manifest such a perspective may thus provide a

⁷⁸ Richardson, "Seeing Empty Space," 232-3.

reason for us not to expect boundaries to be manifest in the case of temporal experience – at least in the same way that they are in vision.

§6. Conclusion

I want to conclude by suggesting the following picture of the relationship between consciousness and continuity. I hope to have shown that the stream of experience doesn't seem strictly continuous *or* dense – rather, it doesn't seem to be strictly *discontinuous*. Its not seeming strictly *discontinuous*, I have suggested, is due to our not being able to experience any gaps in our stream of experience while those gaps take place.

While the stream of experience doesn't appear strictly continuous, I have claimed that the *State of Consciousness* can obtain strictly continuously over an interval of time, in virtue of the occurrence of various events in the brain that may not be strictly continuous. The subject's stream of experience, while not exhibiting strict continuity, manifests *extreme continuity*, where 'extreme continuity' consists in the boundaries of Time-Windows not being manifest in the phenomenology. I demonstrated two ways in which the boundaries of Time-Windows *could* be manifest in experience, but, in the case of our experience, are not.

The claim that 'consciousness is continuous', on my proposal, is a claim about both the way that the objects of experience are experienced (any object of experience is

experienced as continuing on from what occurred immediately before it), and about the nature of the stream of experience itself (the boundaries of Time-Windows are not manifest in the phenomenology in any other way). It is this dual aspect of continuity, I suggested, that may partially explain why both Dainton and Tye oscillate between talk about the continuity of the stream of experience, and the continuity of the objects represented by experience. Having provided an account of the sense in which consciousness is continuous, I now want to discuss in more detail another aspect of the phenomenology: the 'Time-Windows' claim.

Chapter Three: The Phenomenology of Temporal Experience Part Two: Four

Varieties of 'Presence'

§1. Introduction: Varieties of 'Presence'

In the previous chapter, we noted that while Time-Windows are phenomenally manifest in experience in the sense that experience at an instant requires characterisation in terms of some interval, the *boundaries* of Time-Windows are *not* phenomenally manifest. Having concentrated upon the extremes of Time-Windows, in this chapter I want to focus upon the issue of the manner in which the objects of experience that feature *within* Time-Windows are experienced.

I shall distinguish between four different ways in which temporally extended items can be *present* in temporal experience. As in the previous chapter, the purpose of doing this is to a) get clear upon the phenomenology that needs to be accounted for and b) make it easier to spot where the inadequacies of rival accounts lie.

All the different features of experience that I shall discuss in this chapter have the same structure: they all involve some temporal extent being *present* to the subject at a time. However, in attempting to get clear on what the phenomenology of temporal experience is, I shall distinguish between four different varieties of presence: 'phenomenal', 'sensorial'; 'memorial'; and 'temporal'. I shall then argue that there are

four corresponding different versions of the Time-Windows claim, all of which describe features of temporal awareness.

The first variety of presence that I shall discuss is *phenomenal* presence. This variety of presence encompasses the others – the other varieties of presence can all be thought of as *ways* of being phenomenally present. ‘Phenomenal Presence’ is defined as follows:

‘Phenomenal Presence’: Something is phenomenally present in a portion of experience just in case a characterisation of the phenomenal character of the relevant portion of experience requires mention of that something.

This variety of presence corresponds to the following version of the Time-Windows claim:

‘The Phenomenal Time-Windows claim’: To characterise experience at a time we need to appeal to something temporally extended: temporally extended happenings are *Phenomenally Present* at a time. The temporal extent in question will be equal to or shorter than the period of time for which the subject has been experiencing.

The Phenomenal Time-Windows claim is the same as what I called the plain ‘Time-Windows claim’ in the first and second chapters – from now on I shall refer to it only

as the *Phenomenal Time-Windows* claim. Talking only about the Phenomenal Time-Windows claim was adequate for our purposes in setting up the problem of temporal experience and discussing continuity. However, as already mentioned, in order to get a better grasp of the phenomenology, we now need to introduce some distinctions between ways in which items can be phenomenally present.

§2: Sensorial Presence

The second way of being phenomenally present that I shall discuss is *Sensorial Presence*. We can give an example of what is meant by 'Sensorial Presence' as follows:

'Sensorial Presence': When I look at an opaque, three-dimensional object, it can seem to me that I am experiencing a three-dimensional object, but normally the facing side/s of the object will be present in experience in a way that the rest of the object is not – the facing side/s of the object is/are *sensorially present*.

Before proceeding, I should note that this discussion of 'sensorial presence' takes as its starting-point Foster's observation that:

Duration and change *seem* to be presented to us with the same phenomenal immediacy as homogeneity and variation of colour through space... When I listen to

a tune, the duration and succession of notes seem to be as much an auditory datum – part of the content of my auditory experience – as their pitch and loudness.⁷⁹

When presented with claims about the ‘directness’ or ‘immediacy’ with which some element features in experience, the appropriate reaction is always to try and work out what is meant by ‘direct’ or ‘immediate’. The distinction between ‘phenomenal’ and ‘sensorial’ presence in what follows is an attempt to get clearer on the sense in which not only homogeneity and variation of colour through space, but also duration and succession, are what Foster calls ‘*phenomenally immediate*’.

The first example I shall discuss is one in which the subject visually experiences an armchair that is facing him. This example helps us to bring out the distinction between sensorial presence, and phenomenal presence. What is it like for me to have a visual experience of an armchair that is facing me? The first thing that we should note is that the armchair is experienced as a three-dimensional item.

However, the way in which the front, top, bottom, etc. of the armchair are present in my experience plainly differs. If the armchair is sitting on the floor, and I am standing in front of it, and there aren’t any conveniently located mirrors, then the front, top, and possibly sides of the armchair will be present in my experience in a way quite different from the rest of the armchair.

⁷⁹ J. Foster, *The case for idealism* (Routledge & Kegan Paul, 1982), 255.

While it is the armchair that is phenomenally present, only parts of the armchair are *sensorially* present. I should note at this point that I am thinking of sensorial presence as a variety of phenomenal presence – so things that are present will also be *phenomenally* present. Temporal presence, which I discuss later, is also to be thought of as a variety of phenomenal presence. Something is phenomenally present to the subject just in case we need to appeal to that thing in characterising the subject's experience.

One objection that may arise to the sensorial/phenomenal presence distinction at this point is the thought that the non-facing parts of the armchair *can't* be present in visual experience – after all, I can't *see* the non-facing parts of the armchair. How, the objection goes, can anything that I can't actually see contribute to the phenomenology of visual experience?

My response to this objection is just to note that the sensorial/phenomenal presence distinction offers a way to account for the intuition driving the objection. It is certainly true that I can't see the non-facing parts of the armchair in the above situation, but this doesn't preclude the non-facing parts of the armchair from featuring in my visual experience. Here are a couple of reasons for thinking that the non-facing parts of the armchair *do* feature in visual experience:

My first reason for thinking this is phenomenological. I take it that in visual experience it seems to us that we are often confronted with a world of familiar three-dimensional objects. My second reason for thinking this is that some of my

behaviour – how I navigate an unfamiliar assault course, for example – is responsive to what my visual experience presents me with.

When I reach for a rope or rung that I have just looked at for the first time, I reach as if the rope or rung has parts that are not sensorially present, even though there is a sense in which I cannot see those parts of the rope or rung. That I reach in the way that I do is plausibly to be explained by appeal to the nature of the visual experience I have. Given that I reach for the object as if the object has parts that are not sensorially present, it is plausible that my visual experience of the object is a visual experience as of an object with parts that are not sensorially present.

One way to respond to these two arguments in support of the claim that more than the facing sides of opaque objects can be present in that subject's visual experience is to claim that we can account for the phenomenology and the relevant actions by appealing to there being some cognitive contribution to visual experience. Perhaps, for example, such an account would appeal to *belief* as playing a role in perceptual experience.

When I have a visual experience of the armchair in the above situation, the advocate of such an account will claim, all that is really going on is that I visually experience the front, top, and sides of the armchair, and believe the rest of it to be a certain way. Likewise, on the assault course, I visually experience the front of the rung, and believe that the rest of it is a certain way – it is the combination of visual experience and belief that explains my reaching as I do.

This response disagrees with my description of the phenomenology by denying that we can have visual experiences that feature the non-facing sides of objects. However, I think that we can begin to respond to this objection by noting that we are not consciously aware of forming such beliefs.

Presumably, on the proposed view, I am constantly non-consciously forming a great number of such beliefs - because I nearly always behave (unless I discover otherwise) as if the objects I encounter have parts that are not currently visible. Once belief has been given this role - where the subject is not conscious of forming such beliefs, and they are made in nearly all encounters with objects - we have arrived at a position that is not very far away from where we originally started.

The question that now arises for the 'seeing plus belief position is the question of whether or not beliefs about the non facing sides of objects can affect the phenomenology of visual experience. If beliefs can affect the phenomenology, then this is a position I have no quarrel with in drawing the phenomenal/sensorial distinction, as in drawing the distinction I remain neutral about what it is that is responsible for something's being phenomenally present. The claim that the non-facing sides of the armchair's phenomenal presence in experience is the result of some belief that I am not conscious of forming is not inconsistent with the claim that the non facing sides of the armchair are phenomenally present.

If the position is that such non-consciously formed beliefs *don't* affect the phenomenology, even despite the two arguments against this position given above, then I suggest that we can appeal to the sensorial/phenomenal distinction as offering a diagnosis of the thought driving this position, namely that there is a clear difference between the way that the facing and non-facing sides of the armchair feature in visual experience.

This response to the theorist who picks out belief as the cognitive aspect of consciousness that plays a role in perceptual experience can also be made to views that appeal to some other cognitive aspect of consciousness to play the same role. Either the cognitive factor, whatever it is, does affect the phenomenology, in which case I have no quarrel with the view, or it does not, in which case I offer the phenomenal/sensorial distinction as a diagnosis of the intuition behind the view.

I thus propose that we persist with my approach of taking the non-facing sides of the armchair to be present in visual experience, albeit in a different way to the front of the armchair. The front of the armchair, unlike the non-facing sides, is 'sensorially present' in visual experience. I now want to propose that we can illustrate the distinction in terms of the Gibsonian visual field.

Before doing this, I should briefly note that there is an issue closely related to distinguishing between sensorial and phenomenal presence in the philosophy of perception – the issue of whether or not we only see objects *in virtue of* seeing their surfaces. In my discussion of sensorial versus phenomenal presence I am not taking a

stand on this issue – I am merely noting that there are two different ways in which the objects of visual experience can feature in visual experience.⁸⁰

§2.1 The Gibsonian Visual Field

The Gibsonian visual field is to be distinguished from the visual field discussed in the previous chapter. One crucial difference between the two is that the Gibsonian visual field is two-dimensional, unlike the three-dimensional visual field of the previous chapter. These two different conceptions of the visual field are non-rivalrous: they are attempts to describe different properties of visual experience. Gibsonian visual field properties are properties of the visual field conceived of in the way suggested by Gibson in the following passage:

First look around the room and note that you see a perfectly stable scene of floor and walls, with an array of familiar objects at definite locations and distances...If you look out the window, there beyond is an extended environment of ground and buildings or, if you are lucky, "scenery". This is what we shall call the *visual world*...

Next look at the room not as a room but, insofar as you can, as if it consisted of areas or patches of colored surface, divided up by contours... The attitude you should take

⁸⁰ For discussion of the 'in virtue of' issue see: M. Martin, "Perception," in *The Oxford Handbook of Contemporary Philosophy* (Ed. F. Jackson & M. Smith) (Oxford University Press, USA, 2008); F. Jackson, *Perception: A representative theory* (CUP Archive, 1977); T. Clarke, "Seeing surfaces and physical objects," *Philosophy in America* (1965): 98-114.

is that of the perspective draftsman... If you persist, the scene comes to approximate the appearance of a picture. You may observe that it has characteristics somewhat different from the former scene. This is what will here be called the *visual field*.⁸¹

Peacocke has discussed the distinctive characteristics of the visual field, and provides the following examples of what he calls 'visual field properties':

Examples are: being an experience that we intuitively classify as one in which the area of the visual field in which the dinner plate is presented is oval in shape; or as one in which that area is changing in shape as one walks closer to the dinner plate; or as one in which the area has a property of a sort that is instantiated when a white surface is presented in a region of the subject's visual field.⁸²

When we are presented in perception with a round dinner plate tilted at a certain angle, despite the tilt, it nevertheless will normally seem to us that we are being presented with a round object. As Peacocke claims, it is not the dinner plate that appears oval as a result of the tilt – rather, the area of the visual field in which the dinner plate is presented is, as a matter of fact, oval.

⁸¹ J. J. Gibson and L. Carmichael, "The perception of the visual world" (1950): 26-7.

⁸² C. Peacocke, "Sensational properties: theses to accept and theses to reject," *Revue Internationale de Philosophie* 62, no. 243 (2008): 2.

We can also note that in this situation, it will normally seem to us that we are being perceptually presented with a whole dinner plate – as opposed to, say, just the front of a dinner plate (the part of the dinner plate that is facing us). Gibson also makes this distinction, calling the dinner plate's shape its 'depth shape', and distinguishing that from its 'projected shape' – which he discusses as follows:

...the shape which an object possesses when projected on a plane. This is its shape as a silhouette, or the shape which is defined by the outlines or contour. This is its "projected shape". That shape of an object which remains constant from whatever direction it is viewed is its depth shape. That shape which changes with the angle of view – the "aspect" of the object as we say – is its projected shape... The visual world contains depth shapes, whereas the visual field contains projected shapes. As you walk about in a room you can, first of all, observe that objects do not change shape in the first sense of the term, and secondly, you may be able to note that the projected shapes do change, especially if you fixate an object as you walk.⁸³

We can think of sensorial presence as a species of phenomenal presence. In the case of the tilted dinner plate, the whole dinner plate is phenomenally present, but only part of the dinner plate is sensorially present. Corresponding to the part of the dinner plate that is sensorially present is the region of the visual field in which the dinner plate is perceptually presented.

⁸³ Gibson and Carmichael, "The perception of the visual world," 34.-5

The part of the dinner plate that is not sensorially present, but nevertheless features in the phenomenology – it is phenomenally present, without being sensorially present – *lacks* such a corresponding region in the visual field. Only the facing side of the plate is relevant in explaining the oval shape in the visual field – thus only the facing side of the plate is *sensorially present*.

The notion of ‘sensorial presence’ I have developed has been introduced in order to provide a constraint upon any account of temporal experience that purports to be applicable to visual experience. I think we can show that temporally extended happenings can be *sensorially present* in visual experience – the constraint will thus be that accounts of temporal experience must be able to account for the sensorial presence of temporally extended happenings in visual experience.⁸⁴

⁸⁴ Given that I am attempting to make claims about how the phenomenology normally strikes us, it might look somewhat curious that I am attempting to illustrate our ‘everyday’ or ‘natural’ phenomenology in terms of a somewhat unnatural attitude that we can take towards experience – the attitude, as Gibson puts it, of the perspective draftsman. However, there are a number of things to note about how the appeal to sensorial presence is supposed to work. Firstly, we can note that taking this unnatural attitude towards experience can be helpful in revealing features of experience that are present even when the unnatural attitude is absent. Secondly, I want to stress that I am not proposing that we are usually aware of coloured patches when we have visual experiences – I am not proposing that it seems to us that we are usually aware of coloured patches, nor am I proposing that visual experience only gives us access to coloured patches. In fact, we can note that it takes deliberate effort for us to take the ‘perspective draftsman attitude’ towards experience. Rather, I want to claim that it is *parts of objects* that are sensorially present in visual experience – and the appeal to the coloured patches of the

On my proposal, temporally extended happenings are sensorially present in Time-Windows: allowing us to formulate a second version of the Time-Windows claim:

'The Sensorial Time-Windows claim': To characterise what is sensorially present in experience at a time we need to appeal to something temporally extended: temporally extended happenings are *Sensorially Present* at a time. The temporal extent in question will be equal to or shorter than the period of time for which the subject has been experiencing.

Hopefully, the Sensorial Time-Windows claim seems like an obvious claim for anyone who chooses to introspect the phenomenology of temporal experience. Even if it does appear obvious, it is nevertheless worth making, as some theorists (Le Poidevin and Zahavi's Husserl) have denied it – and it is this that explains what is unsatisfactory about their accounts. On their views, temporally extended happenings are *never* sensorially present in experience.

Gibsonian visual field merely provides us with a useful way of drawing the distinction between those things that are sensorially present, and those things that are merely phenomenally present.

§2.2: Le Poidevin and Zahavi

On my reading of both Le Poidevin and Zahavi's Husserl, both are committed to the view that what is sensorially present to the subject in perceptual experience at a time is a snapshot.⁸⁵ When we perceive some temporally extended happening, both claim, we are not *sensorially* presented with something temporally extended, but rather with a series of 'snapshots' that don't have discernable earlier and later temporal parts. This series of snapshots is supplemented by some additional features (a 'horizon' on Zahavi's picture, and the sensation of 'pure succession' on Le Poidevin's) about which I shall say more in chapter five, but despite this supplementation, their accounts of what is sensorially present in perceptually experience are very sparse.

Is it possible to show that Le Poidevin and Zahavi are incorrect to characterise the phenomenology of this kind of experience as they do? I believe that it is, and that we can illustrate the implausibility of their positions by comparing what they say about sensorial presence in the temporal case to a position one might take about the spatial case. Le Poidevin and Zahavi both hold that the movement of an object between distinct locations cannot be sensorially present in perception – all that gets to be sensorially present is a series of 'snapshots'. This is what they have to say about the *temporal* case of sensorial presence.

⁸⁵ I shall discuss their views in more detail in chapter five, but the views in question can be found in R. Le Poidevin, *The Images of Time: An Essay on Temporal Representation* (Oxford University Press, USA, 2007). And D. Zahavi, *Husserl's phenomenology* (Stanford University Press, 2003).

The analogous position as regards sensorial presence in the *spatial* case is to claim that the sensorial presence of some spatially extended item in perceptual experience in fact consists of a awareness of a multitude of items that are not spatially extended – or at least don't have discernable spatial extension. This position about the spatial case looks implausible – implausible because we cannot discern such items in experience.

To give an example: the facing part of the page before your eyes is currently sensorially present in your perceptual experience. The position analogous to that of Le Poidevin and Zahavi in the temporal case is that what is in fact sensorially present in perceptual experience in this case are a multitude of regions without discernable spatial extension.

Notice, however, that it isn't possible to attend to these regions – we are only capable of focussing our attention upon parts of the page that have discernable spatial extension. Given that we are incapable of *attending* to such items in perceptual experience, there is no phenomenological motivation for positing that we are, in fact, experiencing such items whenever something with spatial extent is sensorially present in perceptual experience.

To return to the temporal case, the analogous thing that we ought to say about Le Poidevin and Zahavi's views is that there appears to be no phenomenological motivation for positing 'snapshots'. Just as we can't attend to the spatial equivalent

of snapshots (regions of space without discernable spatial extent), we can't attend to the temporal snapshots Le Poidevin and Zahavi posit.

Clearly there is something motivating Le Poidevin and Zahavi to adopt this revisionary view about the phenomenology. This motivation was discussed in chapter one: the motivation being the thought that we need to account for 'experienced togetherness' in terms of the Thin-PSA. Le Poidevin and Zahavi are both providing versions of what I called 'Memory Theory' – a view that attempts to supplement the unmodified naïve theory's snapshots with an additional component (Le Poidevin's *pure motion* and Zahavi's *horizon*). Again, I shall talk about their views in more detail in chapter five.

§3: Memorial Presence

I now want to discuss the second variety of presence: Memorial Presence. 'Memorial Presence' can be defined as follows:

'Memorial Presence': – When I experience a temporally extended happening, various features of that temporally extended happening can linger in my short-term memory.

If we move a hand across our field of vision, taking about a second or so to do it, we can note that the movement of the hand is sensorially present in experience. We can

also note that by the time the hand has completed its movement, the whole movement of the hand lingers in our short-term memory. When the movement of the hand is sensorially present, I am aware of each phase of the movement successively – I am aware of the hand moving from p1-p2-p3-p4, but I also retain in my short-term memory a grasp of the route traversed by the object.

Russell draws attention to this feature of temporal experience in the following passage:

[We can note] our awareness of the *immediate* past, the short period during which the warmth of sensation gradually dies out of receding objects, as if we saw them under a fading light. The sound we heard a few seconds ago, but are not hearing now, may still be an object of acquaintance, but is given in a different way from that in which it was given when it was a sense-datum.⁸⁶

Note that Russell's talk of objects featuring 'as if under a fading light' doesn't seem accurate if we interpret it literally – it isn't as if the difference between perception of an item and short term memory of an item can be captured in terms of how well illuminated those items appear to be. However, we can interpret 'as if we saw them under a fading light' charitably, as Russell gesturing at something he makes more precise in the next sentence – namely that the objects of short-term memory are 'given in a different way' from the objects of perception.

⁸⁶ B. Russell, *Theory of knowledge* (Routledge, 1992), 72.

On this interpretation, we ought to agree with Russell. The lesson we should take from Russell's remarks here is that there is a clear distinction to be drawn between being sensorially presented with a given temporally extended happening in visual experience, and being aware of that same temporally extended happening via short-term memory. Of course, in order for this claim to be plausible, I need to specify what is meant by 'short term memory' in this context.

There are at least three different things we might mean when we talk about short-term memory. Firstly, we might mean that some information from recent past experience has been *retained*. This extremely general sense of short-term memory we can call 'Retention'. Secondly, we might mean that some recent item is experienced *as past*. Depending on one's view about temporal experience (I shall discuss some different options in more detail shortly), one or both of these senses of 'short term memory' could play a role in temporal experience.

The third sense of 'short-term memory' we can distinguish picks out a *faculty distinct from perception*. It is this sense of 'short-term memory' that Russell is picking out when he talks of items being 'given in a different way', and also the sense distinctive of *memorial presence*. We can describe the phenomenon that Russell is picking out for us as the Memorial Time-Windows claim:

The Memorial Time-Windows claim: At a time, the subject can retain a grasp of some temporally extended happening, of duration equal to or shorter than

the period of time for which the subject has been experiencing, via a faculty distinct from perception: the subject's short-term memory.

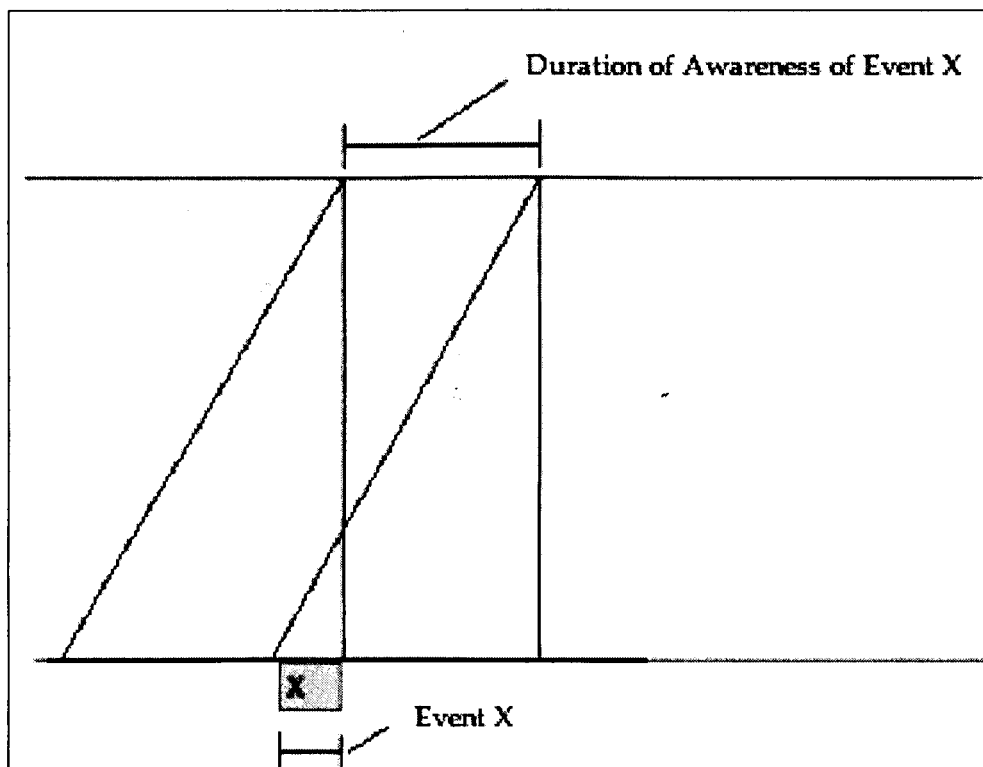
While the MSP is undoubtedly an important way in which we can be acquainted with temporally extended happenings, it is also something that we can distinguish from the way in which we are acquainted with temporally extended happenings when they are *sensorially present* to us in perception.

One crucial phenomenological difference between the sensorial presence of certain very short temporally extended happenings, and the memorial presence of the same items is that when they are *sensorially present* they do not *linger* – the time in which they are represented as occurring is the same as the time for which they are represented. When the same items are memorially present, however, they are typically represented for a period greater than that of their own duration.⁸⁷

This contrast between memorial and sensorial presence reveals an important feature of the PPC: namely that the PPC does not characterise *memorial presence*. I can remain aware, via short-term memory, of the brief sound that I heard a few seconds ago, for a period of at least a few seconds. In contrast to this, I cannot remain *sensorially aware*

⁸⁷ We can put cases such as blurs or after images – in which, arguably, items remain sensorially present for a period greater than their own duration – to one side for the purposes of this part of the discussion. We are focussing here on the experience of very short temporally extended happenings that are not experienced as blurry and that leave no after-images.

of an item in perception for a period of time greater than the period that item is represented as occupying.⁸⁸



The above diagram represents a situation in which a short temporally extended happening 'lingers' in experience. It is phenomenologically accurate to give an account of our *short-term-memory* of temporally extended happenings on which our awareness of the temporally extended happening is of greater duration than the happening in question, but items sensorially present in perception do not linger in this way.

⁸⁸ It is this feature of temporal experience that is what renders the uncharitable interpretation of Russell's remarks above uncharitable. The uncharitable interpretation of Russell takes him to mean that items linger sensorially in perceptual experience - and this is not the case.

I have drawn attention to the Memorial Time-Windows claim because I think that some accounts of temporal experience we shall examine in the next chapter look more like accounts of the Memorial Time-Windows claim than accounts of the sensorial presence of temporally extended happenings. I shall argue later that any account that results in temporally extended happenings 'lingering' in experience is best thought of as an account of the Memorial Time-Windows claim – and not of our 'direct awareness' (i.e. the sensorial presence) of temporally extended happenings.

In fact, an account of the Memorial Time-Windows claim will also be an account of a feature of temporal experience that Miller proposes that we need to account for. In his discussion of Husserl, Miller introduces the following features that he claims an account of temporal experience needs to deal with:

An adequate account of our perceptual awareness of a process, or an event, must – according to Husserl – deal with three main features of such an awareness: The first is the very fact that in perceiving a process we are aware, at any given instant of the duration of that awareness, of a *temporally extended part* of that process or the whole of that process, and not merely of one of its instantaneous tone-phases. The second is the fact that our perceptual awareness of a process involves a continual awareness of the *continuity of that very awareness*. The third feature is our continual awareness, during our perception of a process, of our *changing temporal-perspective* of that process.⁸⁹

⁸⁹ Miller, *Husserl, perception, and temporal awareness*, 160.

The 'Sensorial Time-Windows' claim corresponds to the first feature, and the claim that consciousness exhibits extreme continuity corresponds to the second. Miller goes on to describe the third feature – awareness of our changing 'temporal perspective' on a temporally extended happening in more detail. When I am aware of a piece of music playing, he suggests, I am aware of some parts of the music as playing *now*, and some parts of the music as 'having just played'. It is this kind of awareness that Miller has in mind when he talks of our 'changing temporal-perspective' on a process.⁹⁰ This feature of our temporal experience – awareness of some things as happening *now*, and some things as *having just happened* – clearly can be accounted for by a combination of perception (of things happening *now*), and short-term memory (of things *having just happened*).

The idea that there might be two different things to be accounted for here – our perception of temporally extended happenings, and our short-term memory of recently-perceived temporally extended happenings – looks to be implicit in other literature on temporal experience. Sean Kelly, for instance, in *The Puzzle of Temporal Experience*, characterises the difference in approach between what he calls 'Specious present theory' and 'Retention theory' as follows:

The first approach centers on what has been called the theory of the Specious Present. According to this theory, we are wrong to think of our experience as providing us with static snapshots of the world. *Rather, we are in direct perceptual contact with an ordered,*

⁹⁰ cf. *Ibid.*, 146-9.

*temporally extended window on the world.*⁹¹

According to the Retention Theorist our experience is fundamentally a presentation of the world at a time. The Retention Theorist, in other words, accepts the presupposition that experience presents us with a snapshot of the world...*in experience the snapshot that we get of the world is always supplemented with memories or "retentions" from the past and anticipations or "protentions" of the future...*⁹²

At first, then, it looks as though the 'specious present theorist' and the 'retention theorist' are in competition with one another, with Kelly's talk of memory not picking out a faculty distinct from perception – rather, 'memory' appears to be being used in the sense of 'retention' mentioned earlier. However, later on, Kelly says the following about the memory theorist:

Even on the Specious Present Theory...we must keep track of the earlier phases of long movements in some way other than by perceiving them directly. That we have some relation to the past and the future other than direct perception of it, however, is the main point of the Retention Theory.⁹³

At this point, then, it looks as though Kelly's remarks lends themselves to the idea

⁹¹ S. D Kelly, "The puzzle of temporal experience," *Cognition and the brain: The philosophy and neuroscience movement* (2005): 3.

⁹² Ibid.

⁹³ Ibid., 13.

that the theorists he calls the 'specious present theorist' and the 'memory theorist' are just accounting for two different things. The specious present theorist is attempting to explain our *perception* of temporally extended happenings, and the memory theorist is attempting to explain our *nonperceptual* awareness of past and future happenings (our awareness of items via a faculty distinct from perception).

Kelly's way of drawing the distinction between the Specious Present Theory and Memory Theory thus looks as though it has the unfortunate consequence that the accounts turn out to be non-rivalrous. I now want to turn to an alternative way of drawing the distinction he has in mind. This distinction is drawn in terms of what is experienced 'as present'. The distinction is thus drawn in terms of what I shall call 'temporal presence'.

§4: Temporal Presence

The final way items can be present in experience that I shall discuss is *Temporal Presence*. This variety of presence is noted by Russell in *Theory of Knowledge*:

Whatever I experience is, in one sense, 'present' to me at the time when I experience it, but in the temporal sense it need not be present – for example – if it is something remembered, or something abstract which is not in time at all.⁹⁴

⁹⁴ Russell, *Theory of knowledge*, 38.

Russell here draws our attention to what I shall call 'temporal presence'. Recall that something is phenomenally present just in case it features in the phenomenology – something is phenomenally present just in case we need to appeal to that something in order to characterise the experience.

To characterise the experience of the armchair discussed earlier, we needed to appeal to both the facing parts of the armchair (which are sensorially present) and non-facing parts (which are not sensorially present). Just as sensorial presence is a way of being phenomenally present, *temporal* presence is also a way of being phenomenally present.

We can bring out the distinction between phenomenal presence and temporal presence by noting a difference between episodic memory and perception. Things are phenomenally present in both memory and perception – in order to characterise the phenomenology of episodic recollection of visually experiencing an armchair, and of simply visually experiencing an armchair, we need to appeal to the armchair that the memory and perception are of. One crucial difference between the two cases, however, is that only the perceptual case seems to present me with the armchair 'as present' or 'now'.

§4.1: Episodic Recollection

In the case of episodic recollection, it doesn't seem to me as if the armchair is presented 'as present' or 'now'. In fact, when I remember the armchair, I remember encountering the armchair at some point in the *past*. I am keeping the characterisation of the difference between the two cases deliberately rough at this stage, precisely because the question this difference between the two cases raises is 'how are we to cash out the way in which perception presents us with 'armchair now' or 'armchair present'?

Firstly, we need to say more about the difference between episodic recollection and perception. We can note that there are certainly phenomenological differences between perception and episodic recollection – differences about which I shall talk more later. There is also a difference between perception and episodic recollection that concerns how they lead us to act. Perceptual experience of an enraged mother bear charging at me can lead to me taking evasive action – dropping to the floor and playing dead, for example. Episodic recollection of the enraged mother bear charging at me, however, *doesn't* lead me to me taking any kind of evasive action.

This difference in effect upon action is what ought to convince us that, while the objects of perception are temporally present – they are in some sense experienced as 'now' or 'present' – the objects of memory are not. What we are looking for, then, is some way of capturing the content of perception that explains why it leads to courses of action that episodic recollection does not.

The phenomenon of 'temporal presence' raises a question about exactly what 'temporal presence' is – how ought we to think about the content of an experience in which something is temporally present? What is it for something to be temporally, as opposed to merely phenomenally, present in experience? In drawing attention to the phenomenon, I have attempted to remain neutral about how this notion of 'temporal presence' is to be cashed out.

Prima facie, it looks as though we need to characterise 'temporal presence' in terms of things being experienced as 'now' or 'present' (as opposed to past or future). This is a reasonable first attempt to mark the relevant distinction between memory and perception, in order to explain my acting as I do on the basis of experience.

Perception of something dangerous (such as in the enraged mother bear situation) typically leads to very different course of action than episodic recollection of something dangerous – and this difference in course of action is plausibly best explained by perception presenting us with things 'as now' or 'as present'. Given this, we now face the problem of cashing out how it is that 'now' or 'present' is manifest in the content of experience.

Sometimes, the debate about temporal experience is set up as a debate, not about how it is that we can experience temporally extended happenings, but about what we can experience 'as present'.⁹⁵ We have already got the result, discussed in the first

⁹⁵ See Le Poidevin, *The Images of Time*. for an example of this kind of approach.

chapter, that what is relevant to characterising the subject's experience at a time is an interval with duration less than or equal to the duration for which the subject has been experiencing – the Phenomenal Time-Windows claim.

The debate about temporal experience, set up in this way, concerns what portion of Phenomenal Time-Windows gets experienced *as present*. This debate enables us to capture the distinction between Specious Present Theory and Memory Theory. On my proposal for drawing the distinction, both are committed to the Thin-PSA: they both commit to the idea that the Phenomenal Time-Windows claim reveals 'experienced togetherness', and claim that this is to be cashed out in terms of Thin-PSA. The idea that temporally extended happenings can be Temporally present in experience at a time we can formulate as the Temporal Time-Windows claim:

'The Temporal Time-Windows claim': To characterise what is temporally present in experience at a time we need to appeal to something temporally extended: temporally extended happenings are *Temporally Present* at a time. The temporal extent in question will be equal to or shorter than the period of time for which the subject has been experiencing.

The dispute between these Thin-PSA accounts concerns how we ought to capture the 'temporal presence' of items in the Phenomenal Time-Windows claim. On one type of Thin-PSA account – Memory Theory – 'temporal presence' is best captured in terms of a snapshot, and on the rival account – Specious Present Theory – 'temporal

presence' is best captured in terms of an interval with discernable earlier and later temporal parts.

§4.2: Specious Present Theory Versus Memory Theory

Specious Present Theory and Memory Theory are accounts that are best distinguished in terms of what they take to be temporally present in experience at a time. Memory Theorists take this to be a snapshot, whereas Specious Present Theorists take it to be something with discernable earlier and later temporal parts. On the side of the Specious Present Theorists we have Broad and Tye:

I shall assume that what a person prehends at any moment is of finite duration...I take it that our prehension of the contents of each specious present as having *presentedness* is the experiential basis of our notion of *presentness* in the strict sense.⁹⁶

Presentness is part of the content of perceptual experiences in all modalities...the present is... experienced when one experiences something changing...this experienced present...has a brief but finite duration.⁹⁷

⁹⁶ C. D Broad, *Examination of McTaggart's philosophy* (University Press, 1927), 288.

⁹⁷ Tye, *Consciousness and persons*, 86-87.

Husserl and Le Poidevin, on the other hand, claim that the only things we can experience as present are things without discernable earlier and later temporal parts:

Each tone becomes constituted in a continuity of tone-data; and at any given time, only one punctual phase is present as now, while the others are attached as a retentional tail... to the opposition between perception and primary memory there corresponds on the side of the object the opposition between 'now present' and 'past'.⁹⁸

The experienced present may not be durationless, but it is certainly very short indeed...we could hardly both perceive two events as present *and* perceive one as occurring before the other. What we experience as present is not divisible in this way.⁹⁹

Husserl and Le Poidevin both suggest that, while we can perceive some things as present, we cannot perceive things with discernable earlier and later temporal parts as present. This is explicitly committed to by Le Poidevin above, and I also take it that Husserl's talk of only 'punctual phases' being represented as now involves commitment to the notion that, at an instant, nothing with discernable earlier and later temporal parts can be represented as 'now'. I take it that which is 'punctual' doesn't have earlier and later temporal parts.

⁹⁸ E. Husserl, *On the phenomenology of the consciousness of internal time (1893-1917)*, trans. J. B Brough (Kluwer Academic Publishers, 1991), 40-1.

⁹⁹ Le Poidevin, *The Images of Time*, 80-1.

On my interpretation, while Husserl and Le Poidevin both take only a snapshot to be temporally present, they differ over the issue of Sensorial Presence, with Husserl's view being that there is a sensorial, as well as a temporal, Time-Window. Le Poidevin, however, as discussed earlier, *denies* the existence of a Sensorial Time-Window, and holds that only a snapshot can ever be sensorially or temporally present in experience.¹⁰⁰

How should we think of the debate between the Memory Theorists and the Specious Present Theorists? What is it that is motivating these two quite different pictures? One thought might be that the Memory Theorist is motivated by concerns about the 'strict' present. The 'strict' present – the present as it is in reality, and not merely as it features in experience – must be an instant, for if it was temporally extended, it would have parts that were earlier and later – and thus past or future.

Perhaps, then, the Memory Theorist is motivated by the thought that the 'strict' notion of the present is the only coherent notion of 'the present' – so when we talk about 'the experienced present', the only thing we can have in mind is something instantaneous. This would require commitment to an *instantaneous*, rather than a 'no discernable earlier and later temporal parts', conception of snapshots.

¹⁰⁰ Both views are discussed in more detail in chapter five.

As we have seen, both in the first chapter, and in the Le Poidevin's remarks above, the Memory Theorist's conception of experience is such that it is divisible into snapshots, but these snapshots are not necessarily to be thought of as *instantaneous* – as Le Poidevin puts it, 'the experienced present may not be durationless, but it is certainly very short indeed'. What is it, then, that motivates the Memory Theorist to claim that the present, as it features in experience, is something that, while not necessarily *instantaneous*, nevertheless doesn't possess discernable earlier and later temporal parts?

One way to think of this debate is that it is about the 'token-reflexivity' of temporal presence. We can distinguish between two different ways that *utterances* that concern what is going on 'now' or 'at present' can function as regards their token-reflexivity, and use this distinction to set up the dispute between the Specious Present Theorist and the Memory Theorist.

§4.3: Token-Reflexivity

The truth-maker for an utterance that concerns what is going on 'now' or 'at present' involves the time occupied by the utterance. It looks plausible that the same goes for experience – namely that the truth-makers for the *experience* of something 'experienced 'now' or 'as present' involve the time at which the experience occurs. It is this feature of utterances and experience that is being picked out when we call both *token-reflexive*.

We can distinguish two different forms of token-reflexivity: *concurrent* token-reflexivity, and *weak* token-reflexivity. An item is concurrently token-reflexive if the time-period occupied by the truth maker of that item is *concurrent* with the time-period occupied by the item itself. An item is *weakly* token-reflexive if the time-period occupied by the truth maker of that item *overlaps with and exceeds in duration* the time-period occupied by the item itself.

Returning to the case of utterances, it is easy to find an example of a weakly token-reflexive utterance: consider, for instance, an utterance of 'it is raining today'. 'It is raining today' is an utterance that, if spoken at normal speed, has a truth-maker (a whole day) that occupies an interval greatly outstrips the time it takes to perform the utterance. While the truth-maker has duration greater than that of the utterance in question, the relevant truth-maker is picked out by the time of the utterance: the day in question is the day in which the utterance falls. The truth maker thus overlaps and exceeds in duration the time-period occupied by the utterance itself.

It is more difficult to find examples of utterances that are *concurrently* token reflexive – perhaps the most plausible cases are those in which an utterance of a word such as 'now' is used to designate the precise time of occurrence of the item in question. When I utter the sentence 'I am turning on the lights... *now!*' I am using my utterance of '*now!*' to indicate the precise time at which I am turning on the lights. Likewise, when I utter the sentence 'Usain is crossing the finishing line... *now!*' the utterance of '*now!*' picks out the precise time at which Usain is crossing the finishing line.

In this kind of case, the utterances of '*now!*' are taken to pick out some event that occurs concurrently with them. The truth-maker of the utterance of 'I am turning on the lights... *now!*' is an event that occurs concurrently with an utterance that is a temporal part of the whole utterance: the utterance of '*now!*' The utterance of '*now!*' in such sentences is the only temporal part of the overall utterance of the sentence that is relevant to the business of determining a truth maker. In this way, then, we can have utterances that have truth makers that are concurrent with them, but that do not occupy a period of time greater than that occupied by the utterances themselves.

With this distinction between varieties of token-reflexivity in mind, we can return to the issue of the dispute between the Specious Present Theorist and the Memory Theorist. The proposal is that we can understand their dispute as a dispute about token-reflexivity. This requires us to interpret both Memory Theorists and Specious Present Theorists as committing to views on which the truth-makers of experiences are given by looking not only at the content of experience, or of a portion of experience, but by looking at the time at which the experience occurred as well. As far as I can tell from looking at the views of such theorists, there doesn't appear to be any reason *not* to interpret them in this way.

As we have seen, Memory Theorists commit to the view that only a snapshot can be temporally present in perception at a time, whereas Specious Present Theorists hold that items with discernable earlier and later temporal parts can be so present. Given that both types of theorist are providing accounts of how experience is at an instant,

we can take the Specious Present Theorist to be seeing temporal presence as *weakly* token-reflexive, while the Memory Theorist sees it as *concurrently* token-reflexive.

The Memory Theorist's commitment to *concurrent* token-reflexivity is perhaps to be explained by the way that the Memory Theorist responds to the deficiencies of the Unmodified Naïve Theory. One thought that motivates the Unmodified Naïve Theorist is that perceptual experience, unlike other forms of experience, keeps us 'up to date' with the state of the world. As the world changes or remains the same from instant to instant, so perceptual experience, from instant to instant (or snapshot to snapshot), keeps us up to date with this changing or remaining the same.

On the Unmodified Naïve Theory, what is experienced 'as present' or 'now' at a time is some instantaneous snapshot, with the instantaneous snapshot delivering information about how the world currently is. The Memory Theorist's proposal is that this picture needs to be supplemented with some contribution from short-term memory if it is to avoid the accusation that we never experience temporally extended happenings.

If we start out from a position on which a snapshot is experienced as present, with each snapshot being superceded by a subsequent more up-to-date snapshot, then when we look to supplement that picture with some memorial ingredient that furnishes awareness of items given as occurring *before* the relevant snapshot, it might not look plausible that those items given as occurring *before* the snapshot can also be as present. If the snapshot is what furnishes us with the most recent picture of how

things are with the world, and the memorial component furnishes us with how the world *was before* this snapshot, then, the Memory Theorist argues, the memorial component cannot present us with items *as present*.

The Memory Theorist, then, already has a picture of what is experienced 'now' or 'as present' that is imported from the Unmodified Naïve Theory. The Memory Theorist's unwillingness to extend Temporal Presence to items with duration greater than a snapshot is perhaps to be explained by the following intuition, described by Richard Sorabji:

The central idea is that if the present were an extended stretch of time, it would overlap with the past and future. No doubt the common intuition that the present is distinct from the past and future would have to be abandoned if it could be shown to be unsatisfiable.¹⁰¹

Sorabji is, in the above passage, not talking about the present as it features in experienced, but about the present in general, and the question he is concerned with is that how specifying exactly what 'the present' is. The intuition he is picking out is that whatever it is that we identify as being 'the present', that thing ought to be 'distinct' from the past and the future. The thought then is that when the consequences of this intuition are drawn out, the only possible candidate for being 'the present' will be an *instant*. This kind of consequence-drawing-out argument is

¹⁰¹ R. Sorabji, *Time, creation and the continuum: theories in antiquity and the early Middle Ages* (Gerald Duckworth & Co Ltd, 1983), 9.

generally attributed to Augustine, and has been formulated by Robert Le Poidevin as follows:

Suppose the present to last for a non-zero interval. It would then have to be divisible into earlier and later parts. But if it is so divisible, then its parts cannot all be present. If some earlier part is present, then some later part is future. Or, if some later part is present, then some earlier part is past. Therefore, it must be durationless.¹⁰²

The Memory Theorist is driven by the intuition that we can only intelligibly talk about the present as something that doesn't admit earlier and later temporal parts: not admitting earlier and later temporal parts is what is precisely what is *distinctive* about the present, as opposed to the past and the future. So in response to the Specious Present Theorist's suggestion that temporally extended happenings can be temporally present in experience at a time, Memory Theorists make the following kind of response:

This cannot be true literally. We could not experience an entire spoken sentence as present: it would just be a confusing jumble of sounds if we did... James says that we distinguish earlier and later parts in the specious present. But we could hardly perceive two events as present *and* perceive one as

¹⁰² Le Poidevin, *The Images of Time*, 79.

occurring before the other. What we experience as present is not divisible in this way.¹⁰³

The thought here is that the Specious Present Theorist's suggestion that temporally extended happenings can be experienced as temporally present is somehow incoherent. The problem with suggesting that we perceive things with earlier and later parts as *present* is the Augustinian thought that the present cannot be an interval, because if it is it will have earlier and later parts – that is, it will have parts that are past and future – parts that are *not* present. Of course – this is precisely the kind of observation that the specious present theorist wants to make: that the present as it is *experienced* is importantly different from the way that the present is often taken to be objectively – hence the name 'the *specious* present'.

According to Memory Theory, an item cannot be experienced as occurring earlier than the time that the portion of experience in question occurred, *and* be experienced as temporally present. According to the Specious Present Theorist, however, temporally extended happenings *can* be experienced as temporally present. The Memory Theorist's objection to the Specious Present Theorist concerns the Specious Present Theorist's conception of the present as admitting earlier and later temporal parts. The Specious Present Theorist, however, rejects memory theory because of its insistence that snapshots feature in perceptual experience. The Specious Present holds that we simply don't find snapshots when we introspect, and so it is a mistake

¹⁰³ Ibid., 80-1.

to think that we ought to give an account of experience that appeals to such things (as the Memory Theorist does).

Given that we don't find any snapshots in the phenomenology, the Specious Present Theorist argues, we ought not to claim that only a 'snapshot' can be experienced as temporally present. If we don't find snapshots in experience, and we think that items can be experienced as temporally present, then it looks as though the only remaining candidates for what is experienced as temporally present are temporally extended happenings. Of course, in adopting this position, the Specious Present Theorist needs to provide some account of the present according to which items with discernable earlier and later parts can be experienced as present. In the next chapter I provide a discussion of Broad, who is a good example of a theorist who attempts to provide an account of how items with discernable earlier and later temporal parts can be experienced as temporally present.

The debate between the Memory Theorist and the Specious Present Theorist generates two serious problems with both views. The Memory Theorist's account involves a concurrent token-reflexive picture of temporal presence, and the problem facing it is that we don't find snapshots in experience. The Specious Present Theorist's account involves a weak token-reflexive picture of temporal presence, and the problem facing it concerns how something with earlier and later temporal parts can be experienced *as present*.

Due to these problems with both views, I propose, we ought to attempt to see if an account of Temporal Presence can be provided that avoids both of these problems. I shall attempt to provide such a position in chapter seven, where I provide a positive account of temporal experience. On the view I shall propose, the temporal presence of temporally extended happenings in perception is to be captured via appeal to the PPC. I shall argue that, if we drop Thin-PSA, and instead advocate an account that involves only Fat-PSA, we can provide an account of the temporal presence of temporally extended happenings that breaks the stalemate between the Specious Present Theorist and the Memory Theorist.

§4. Conclusion

In this chapter we have seen that there are four different Time-Windows claims that a theorist giving an account of temporal experience could be committed to: the Phenomenal Time-Windows Claim, the Sensorial Time-Windows Claim, the Memorial Time-Windows Claim, and finally the Temporal Time-Windows Claim.

All theorists apart from the Unmodified Naïve Theorist accept the Phenomenal Time-Windows Claim:

'The Phenomenal Time-Windows claim': To characterise experience at a time we need to appeal to something temporally extended: temporally extended happenings are *Phenomenally Present* at a time. The temporal extent in

question will be equal to or shorter than the period of time for which the subject has been experiencing.

Le Poidevin and Zahavi's Husserl, as we shall see in chapter five, appear to be the only theorists who reject the Sensorial Time-Windows Claim:

'The Sensorial Time-Windows claim': To characterise what is sensorially present in experience at a time we need to appeal to something temporally extended: temporally extended happenings are *Sensorially Present* at a time. The temporal extent in question will be equal to or shorter than the period of time for which the subject has been experiencing.

I suggested earlier that both accounts, when we examine the phenomenology, look implausible – and in chapter five we shall examine the theoretical motivation that drives them to make such *prima facie* implausible claims.

The Memorial Time-Windows claim is something that, I have suggested, needs accounting for, though an account of it will be an account of some faculty distinct from perception. The reason I have introduced the claim is that it looks as though a number of Thin-PSA accounts look more like accounts of Memorial Time-Windows than accounts of perception:

The Memorial Time-Windows claim: At a time, the subject can retain a grasp of some temporally extended happening, of duration equal to or shorter than the period of time for which the subject has been experiencing, via a faculty distinct from perception: the subject's short-term memory.

The final claim – the Temporal Time-Windows claim – I suggested as the best way of distinguishing between the Specious Present Theorist and the Memory Theorist. The Specious Present Theorist accepts the Temporal Time-Windows Claim, whereas the Memory Theorist denies it:

'The Temporal Time-Windows claim': To characterise what is temporally present in experience at a time we need to appeal to something temporally extended: temporally extended happenings are *Temporally Present* at a time. The temporal extent in question will be equal to or shorter than the period of time for which the subject has been experiencing.

The theoretical commitment that drives the Memory Theorist to deny this claim concerns, as we have seen, the nature of the present – the present being conceived of as something that doesn't admit earlier and later temporal parts. Later, I shall suggest that the Memory Theorist gets something about the *structure* of experience right – namely, a commitment to concurrent token-reflexivity – but the Specious Present Theorist gets something about the *content* of experience right – namely a commitment to temporally extended happenings being experienced as present. I shall attempt to reconcile these features of both views in my own position.

Having distinguished between these four different Time-Windows claims, I want to propose that an ideal account of temporal experience will provide an account of all four claims, rather than rejecting them. Over the course of the next three chapters, I shall use the distinctions between the four claims as part of a discussion of rival accounts, where the distinctions can be used to demonstrate the inadequacies of such accounts. In chapter seven, I shall attempt to show that it is possible to provide an account of temporal experience that allows us to accept all four Time-Windows claims.

Chapter Four: Thin-PSA Accounts Part One: Broad

§1. Introduction

I now want to discuss in detail the Thin-PSA accounts. In doing this, I shall treat Broad's efforts in some depth – I shall devote this chapter exclusively to them. A reasonably large number of objections have been levelled at Broad, and nearly all of these objections can be shown to fail. My project in this chapter is to demonstrate precisely where it is that we ought to locate these objections.

It will turn out that these objections are precisely the objections we ought to level at the other Thin-PSA accounts discussed in the next chapter as well. One thing to bear in mind during this discussion is that Broad's picture of temporal experience – especially his early account – looks very similar to that of Tye.

I talk about Broad's *early* position because Broad has *two* positions – an early one developed in *Scientific Thought*, and a later one developed in *An Examination of McTaggart's Philosophy*. Broad's later theory is intended "to supersede what [was] said on former occasions", but it is useful to discuss both, so better to understand the later account.¹⁰⁴ Using the terminology introduced in the last chapter, Broad agrees that there are Sensorial Time-Windows and Temporal Time-Windows. As regards Memorial Time-Windows, he is rather ambiguous, as we shall see.

¹⁰⁴ C. D Broad, *The philosophy of CD Broad* (Open Court Pub Co, 1959), 765.

§2. Early Broad

Broad is a Specious Present Theorist – he is also a sense-datum theorist. His formulation of the ‘sense-data’ component of his account involves a threefold distinction between awareness, *sensa*, and sensible fields. Broad introduces the notion of awareness of a *sensum* with the following:

When I look at a penny from the side I am certainly aware of *something*; and it is certainly plausible to hold that this something is elliptical... Assuming that when I look at a penny from the side I am directly aware of something which is in fact elliptical, it is clear that this something cannot be identified with the penny...*sensa*...cannot in general be identified with the physical objects of which they are the appearances.¹⁰⁵

Recall that, in the previous chapter, I discussed the Gibsonian Visual Field, and suggested that I didn’t want to commit to the coloured patches in that visual field being the only items we are ‘directly’ aware of in perception. Broad, however, *does* want to say this, He suggests that we should think of these *sensa* as having spatial locations within a ‘sensible field’ constituted by those same *sensa*:

¹⁰⁵ C. D. Broad, *Scientific Thought* (Routledge & K. Paul, 1923), 240.

The fundamental meaning of 'place' for visual sensa is their place in the visual field of the observer who senses them... We shall also find it convenient to say that such and such a coloured patch is *sensibly present* at a certain place in a visual field. Sensible presence is (a) directly experienced by sight; (b) is literal and unanalysable...; and (c) is private to a single observer, in the sense that it only applies to the sensa of his field. It is a relation between a sensum, which is part of a field, and the rest of the field... the same man has different fields at different times.¹⁰⁶

The claim Broad is making here is that when I am having a normal visual experience of a scene before my eyes, I am aware of a collection of sensa, each with a different location in the spatial visual field that they compose. This is plainly reminiscent of the earlier discussion of 'Sensorial Presence' - but supplemented with the claim that the coloured patches are the direct objects of awareness. Despite this difference in how Sensorial Presence is being conceived of, Broad is in agreement that there are Sensorial Time-Windows.

Broad begins his account of temporal experience by rejecting the notion that sensible fields could be merely momentary:

On this assumption that sensible fields are literally momentary, it follows that sensa are also literally momentary. But this assumption must now be dropped, and we must come closer to the actual facts of sensible experience.¹⁰⁷

¹⁰⁶ Ibid., 303.

¹⁰⁷ Ibid., 348.

Broad's thought here is that, given that sensible fields are constituted by their *sensa*, if we think that sensible fields are momentary, so their constituents (*sensa*) must also be momentary. This suggestion, however, must be rejected, given that it seems to us that we can perceive temporally extended happenings.

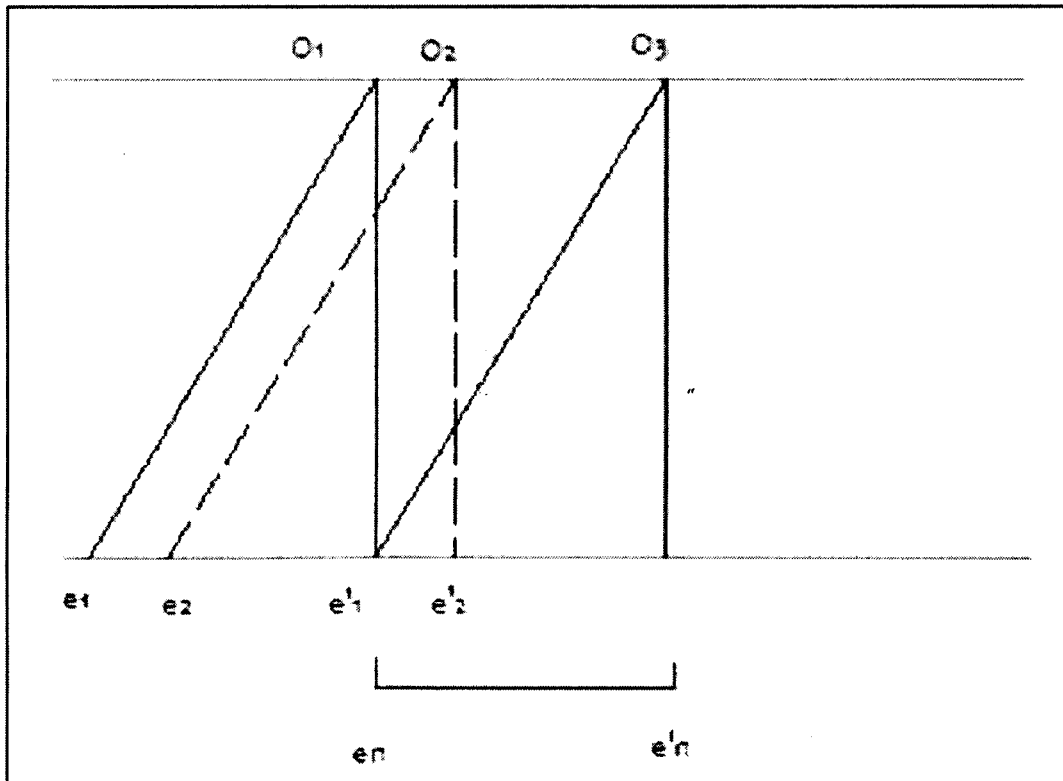
While Broad thinks that this feature of experience shows us that we ought not to think of the direct objects of experience as momentary, he *doesn't* think – at least initially – that it shows us that we should take this same attitude to awareness. Rather, Broad's methodology is the following:

I shall begin by assuming literally momentary acts of sensing and shall then correct this abstraction.¹⁰⁸

One important point to note about what Broad is saying here is that it is not initially obvious how it bears on what he thinks about the PSA. At this point it looks as though he is advocating the Thin-PSA – but what will become of this commitment once he 'corrects the abstraction' of literally momentary acts? Will he drop the Thin-PSA, or perhaps even the weaker version of the PSA – Fat-PSA – altogether? In fact, I shall suggest that he will retain the Thin-PSA and merely claim that there can't be literally instantaneous acts of awareness. This interpretation of Broad has the

¹⁰⁸ Ibid.

consequence that Broad remains untroubled by Dainton's 'ballooning contents' objection – an objection that I shall discuss later on.



Broad's initial account, then, involves commitment to the notion that there are literally momentary acts of sensing. Broad makes use of the above diagram in explaining the details of the account. Broad's account runs as follows:

Let us represent the history of O's acts by a directed line OO . Let us represent the history of his sensible fields by a parallel line ee . Let O_1 , on the upper line, represent a momentary act of sensing done by O at a moment $t'1$. I take it to be a fact that this act grasps an event of finite duration which stretches back from the moment $t'1$ to a

moment t_1 , which is earlier by an amount π . This duration π is the length of O 's specious Present. I call this event $e_1e'_1$, and I represent the act of sensing which grasps it as a whole by the right-angled triangle $e_1O_1e'_1$, with $e_1e'_1$ as base and O_1 as vertex.¹⁰⁹

Broad's suggestion is that at an instant, I am aware of one particular interval – where this is cashed out in terms of momentary acts of awareness grasping events. The interval encompassed by the momentary act is experienced 'as present' or 'now' – for Broad takes himself to be accounting not just for Sensorial Time-Windows, but also Temporal Time-Windows.

Broad also notes that we can also experience things with duration *longer* than that of the 'specious present', and so provides the following account of this phenomenon:

Let us now suppose that, at a slightly later date (separated by less than the length of the Specious Present), O performs another act of sensing. We will represent this by the dotted triangle $e_2O_2e'_2$, which is similar to $e_1O_1e'_1$. This grasps an event of duration π , stretching back from the moment when the act happens. The event is represented by $e_2e'_2$. Now it is evident that there is a part $e_2e'_1$, which is common to the two events $e_1e'_1$ and $e_2e'_2$. This part is sensed by both the acts O_1 and O_2 . On the other hand, there is a part e_1e_2 of the first event which is not sensed by the second act, and a part $e_1e'_2$ of the second event which is not sensed by the first act.¹¹⁰

¹⁰⁹ Ibid.

¹¹⁰ Ibid., 349.

Broad's suggestion here is that the same *sensa* can be sensed in different acts of awareness. Having set up his position in terms of instantaneous acts of awareness, Broad then suggests:

We are now able to remove the supposition of literally momentary acts...If we imagine a continuous series of momentary acts between O_1 and O_2 we can regard them as momentary sections of an act or process of finite duration, and can say that the finite event e_2e_1 is present throughout the whole of this process of sensing.¹¹¹

So, on Broad's account, even though we can think of a subject's acts of sensing as being temporally extended, we can still talk about how things are with the subject at an instant. He is thus clearly committed to the Thin-PSA. Over the course of a temporally extended act of sensing, there will sometimes be events that I am aware of throughout the whole of that act.

Over the course of the temporally extended act O_1O_2 , the event e_2e_1 will remain phenomenally present. Other temporally extended events will only be present for part of the temporally extended act - e_1e_2 and $e_1'e_2$. On Broad's account, the longer an act of sensing (up to the duration of the specious present), the shorter the duration of an event that I will be aware of as a whole.

¹¹¹ Ibid., 349-50.

I now want to discuss some of the objections that have been levelled at this account. Dainton suggests that Broad's account has a number of difficulties facing it. The first objection he formulates is the 'ballooning content' objection:

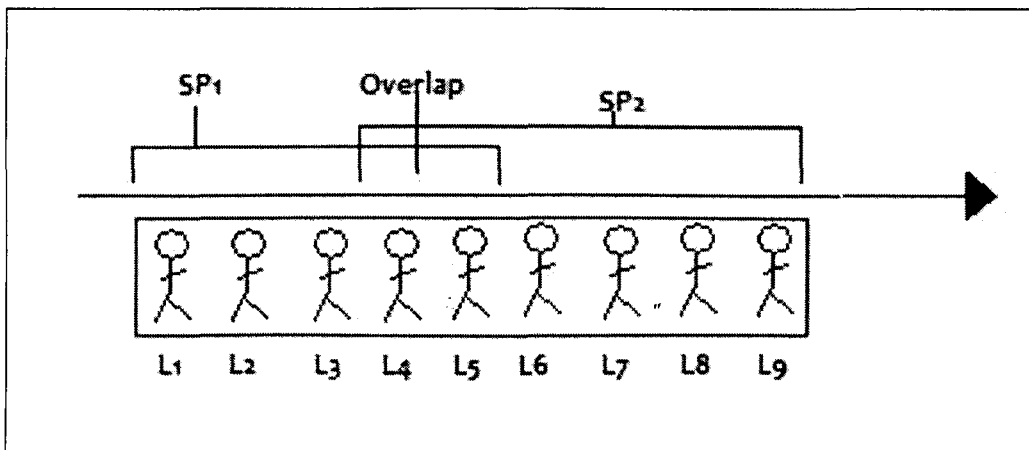
When I perceive a continuous process, the extent of the process that I am directly aware of does not seem to change. It does not seem that over very short intervals I am aware of longer stretches of the process than I am over a longer period. If Broad's theory is correct, we surely ought to be able to notice this 'ballooning' of content over short intervals.¹¹²

It seems to me that Dainton's objection here is slightly misleading, and that he may be talking past Broad somewhat. Broad, I suggest, would want to agree with Dainton that there is a sense in which 'over very short intervals I am aware of longer stretches of the process than I am over a longer period'. Say I am aware of a man walking up a hill (see the diagram below).

Someone sympathetic to the notion of Time-Windows overlapping will want to claim that I am aware of the man walking from location L1 to location L9 in virtue of my being aware of his walking from location L1 to L5, and from L4 to L9, as 'phenomenal wholes'. They will also want to say that there is a sense in which my

¹¹² Dainton, *Stream of Consciousness*, 140.

perceiving the man walk from L1 to L9 will be something that takes time – the whole of the man’s walking cannot be encompassed by a single act of awareness.



However, an interesting thing to note at this point is that the overlap theorist looks to be committed to the claim that the man’s walking from L4 to L5 will be speciously present throughout the whole time that I am aware of the man walking from L1 to L9. One way of putting this is to say that, the longer I am aware of the man walking for, the shorter the stretch of process I will be aware of *as a whole* over that period.

Broad is merely observing that if Time-Windows overlap, then parts of what is represented in those Time-Windows will remain phenomenally present for the duration of certain temporally extended experiences. Given that Dainton is an overlap theorist himself (albeit an overlap theorist who rejects the Thin-PSA), it is hard to see what he could find undesirable about this picture.

Dainton's objection here looks to be founded on the notion that when Broad suggests that the "assumption [that there are momentary acts] must now be dropped..."¹¹³, he is committed to the denial of the Thin-PSA ('There are instants at which experience represents intervals') as well. If Broad is so committed, then Dainton's objection looks to be correct – that is, it looks as though that the longer that an act of awareness goes on for, the shorter the content represented by that act will be. However, it is not clear that this is the correct interpretation of Broad.

When Broad drops the assumption that there are momentary acts, I suggest that he is best thought of as remaining committed to the notion that there are instants at which experience represents intervals, and that a temporally extended act of awareness *consists* of a series of interval-representing instants. It seems to me that the earlier quoted passage...

If we imagine a continuous series of momentary acts between O1 and O2 we can regard them as momentary sections of an act or process of finite duration.¹¹⁴

...provides good evidence for this interpretation. At any instant of an act of awareness with temporal extension, Broad claims, I will be aware of something with the duration of a Time-Window. Over the course of a temporally extended act of

¹¹³ Broad, *Scientific Thought*, 348.

¹¹⁴ *Ibid.*, 350.

awareness, my experience represents happenings with the same duration at every instant, but the particular stretch of happening that remains sensorially present throughout the course of that act will decrease the longer the act goes on.

The second objection Dainton raises to Broad's theory is taken from Mabbott, and runs as follows:

If my dentist hurts me, he has always stopped hurting me before I begin to feel the hurt. And this has nothing to do with the time taken by nerve transmission; it is a direct corollary of the specious present theory.¹¹⁵

Dainton's mentioning this criticism in connection with Broad's early account (the account in *Scientific Thought*) is a slight curiosity, as it looks as though Mabbott himself aims this criticism at Broad's late account (the account in *An Examination of McTaggart's Philosophy*).¹¹⁶ What Broad actually says in *McTaggart* is the following:

There is one important consequence of this theory which I want to make quite explicit because many people would regard it as highly paradoxical. It is this. The period during which any phase, short enough to be prehended as a temporal whole,

¹¹⁵ J. D. Mabbott, "I.—Our Direct Experience of Time," *Mind* 60, no. 238 (1951): 159.

¹¹⁶ In the sentence before the one quoted above, Mabbott quotes from *An Examination of McTaggart's Philosophy*.

is so prehended *never* coincides with the period occupied by this phase. The periods do not even overlap. Their relation is that of *adjunction*.¹¹⁷

Mabbott clearly agrees with Broad that many people would regard this part of the theory as highly paradoxical. However, the way Mabbott phrases the objection is importantly different to the way *Broad* phrases the purported worry. Broad is pointing out that, in order for a *whole* event to be experienced, the whole event must have occurred – and then observing that some people may find this paradoxical.

Mabbott, on the other hand, doesn't appear to make the distinction between experience of event *X as a whole*, and an experience of event *X*. Mabbott thus takes Broad to be committed to the view that in order for a subject to experience anything temporally extended *at all*, the whole temporally extended event must have occurred.

Broad *doesn't* commit to this, either in his early or his late account, and so Mabbott's objection doesn't present a problem for him. Broad would respond to this objection by saying 'of course I can feel the hurt before the dentist stops hurting me – I just can't feel the *whole* hurt until it has stopped hurting me'.

¹¹⁷ Broad, *Examination of McTaggart's philosophy*, 287.

So, it is not clear that these two objections pose any real problem for Broad's early account. The final objection that I shall discuss, however, *does* look to be problematic – the 'repeated contents' objection. Recall the earlier quote from Broad:

If we imagine a continuous series of momentary acts between O1 and O2 we can regard them as momentary sections of an act or process of finite duration.¹¹⁸

If we think of temporally extended acts of awareness as being constituted by a series of momentary acts with overlapping contents, then it appears that different momentary sections of the temporally extended act will represent the same thing. The same click that is heard in one Time-Window will also be heard in a later Time-Window. Dainton responds to this consequence of Broad's theory as follows:

This is a disastrous result, since by hypothesis there is only a single click that is experienced by the subject... Broad's account has the consequence that we cannot hear a single sound just once!¹¹⁹

One important question at this point is whether or not this consequence is really as problematic as Dainton seems to suggest – and where the weight of this objection comes from. Is the objection that the 'double-hearing' of the sound ought to show up

¹¹⁸ Broad, *Scientific Thought*, 350.

¹¹⁹ Dainton, *Stream of Consciousness*, 141.

in the phenomenology and doesn't, or is the objection just pointing to the inelegance of the theory?

I shall discuss the 'repeated contents' objection in more detail in conjunction with Broad's late account, proposed in *An Examination of McTaggart's Philosophy*. As part of this discussion, I shall argue that the primary point of departure between Broad's early and late accounts lies in his attempt to respond to the memory theorist's worries about how temporally extended things can be experienced 'as present', by introducing the notion of 'presentedness'.

§3: Late Broad

On Broad's early account, the contents of what he calls 'the Specious Present' are both sensorially and temporally present. In his late account, we see Broad develop his account of temporal presence in more detail, in response to some of the concerns driving the Memory Theorist's objections to Specious Present Theory.

One concern the Memory Theorist raises is that, if something is experienced *as present* at an instant, then the item represented as present cannot be temporally extended. Broad phrases this concern in terms of the present, unlike the future and the past, not admitting of degrees:

Now the two following propositions are commonly taken to be self-evident. (i) Neither persistence nor qualitative change can be ascribed to a subject which is literally instantaneous. Both involve duration. (ii) Anything which a person prehends at any moment must be present. If we combine these two propositions with the fact that presentness, in the strict sense in which it is on a level with a perfectly determinate degree of pastness or futurity can belong only to what is instantaneous, difficulties at once arise. If anything which a person prehends at any moment must be present, it must be instantaneous. If it is instantaneous, it can neither persist without qualitative change nor suffer qualitative change. Yet prehended objects *are* prehended as persisting unchanged or as changing.¹²⁰

Broad's answer to this problem is to claim that, at an instant, I am aware of something temporally extended. His first move is to attempt to give a satisfactory account of what it is that we are talking about when we talk about the 'specious present'. He suggests that the way the specious present is often talked about...

...Seems to be a verbal trick for evading these difficulties. It is asserted that what is prehended at any moment must have 'presentness', in some sense which *does not* entail instantaneousness and exclude duration, as presentness in the proper sense does.¹²¹

Broad's response to this worry is to attempt to provide an alternative account of how it is that the doctrine of the specious present might help to solve the

¹²⁰ Broad, *Examination of McTaggart's philosophy*, 282.

¹²¹ *Ibid.*

phenomenological problem of temporal experience. Broad's strategy for doing this proceeds as follows:

I propose to begin by substituting for the phrase 'specious presentness' the word 'presentedness'. This is meant to denote a psychological characteristic, which is capable of various degrees from zero up to a maximum. Next, I propose to reject the proposition that anything which a person prehends at any moment must then be present... I shall assume that what a person prehends at any moment is of finite duration, and therefore that only a single instantaneous cross-section of this total object can be present at that moment. I think that this is what the supporters of the Specious Present theory do in fact mean, though they do not say it very distinctly.¹²²

Part of Broad's thought here is that a solution to the phenomenological problem of temporal experience involving appeal to the Specious Present *can't* just be the claim that 'the present, as it features in experience, is not an instant'. If there is a different sense of 'present' at work in 'the doctrine of the Specious Present, then some positive account of this sense of 'presentness' is required: otherwise the position will face the following dilemma. Either a) the solution is a mere 'verbal trick', or b) the present is an instant, and so temporally extended happenings just *cannot* be perceived as present.

Broad has the following to say about the relationship between strict presentness and the property of 'presentedness':

¹²² Ibid., 282-3.

I take it that our prehension of the contents of each Specious Present as having *presentedness* is the experiential basis of our notion of *presentness* in the strict sense.¹²³

Here, then, it looks as though Broad claims that the strict present features in experience only insofar as there is some instant that possesses *maximal presentedness*. I am assuming here that Broad's idea of something being the 'sensible basis' for something else involves those two somethings not simply being identical. It isn't the case, then, that something's possession of the maximum degree of presentness *just is* its being perceived as strictly present.

However, the worry now is that it isn't clear what 'presentedness' is supposed to be. Dainton has attempted to develop this line of thought into an objection to Broad's account. Before discussing this objection, I shall discuss a little more precisely how it is that 'presentedness' figures in Broad's account. Broad makes the following claims:

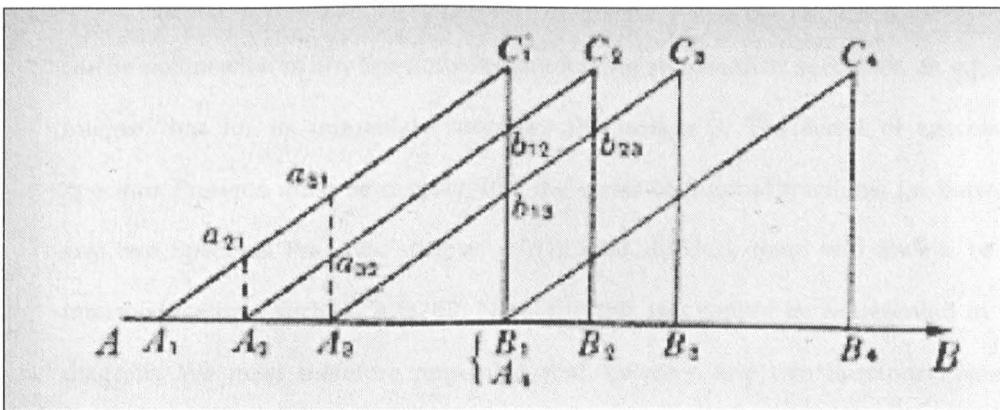
Consider any process of finite duration which a person *P* prehends at any moment, e.g., a whistling noise. Imagine this to be divided up into shorter and shorter adjoined successive phases, so that in the end it is regarded as a compact series of successive event-particles. Let us make the following assumptions: (i) That a certain one of these instantaneous cross-sections is present, in the strict sense. (ii) That this has the maximum degree of presentedness. (iii) That the degree of presentedness possessed by cross-sections which are earlier than this one tails off to zero at the

¹²³ Ibid., 288.

cross-section which forms the boundary between what P is just ceasing to sense and just beginning to retrospect.¹²⁴

The first claim Broad makes looks like it isn't a phenomenological claim – rather, he is claiming that one of the cross-sections of what is perceived at a moment will, in fact, be present. Broad's second claim we should interpret as the claim that the cross section that is, as a matter of fact, present possesses the maximum degree of presentedness. The third claim is that whatever it is that I sense at a moment will possess some degree of presentedness – and the earlier the cross section, the lesser the degree of presentedness.

This is Broad's account of experience of temporally extended happenings with the duration of the specious present – he also provides an account of temporally extended happenings with duration *greater* than that of the specious present. This part of Broad's account is represented by the diagram below:



¹²⁴ Broad, *Scientific Thought*, 283.

Explaining the diagram, Broad says:

On our assumptions, any Specious Present can be represented by a right-angled triangle such as $A1B1C1$, with its base $A1B1$ on the line AB . Here the position of $A1$ on AB represents the date of the earlier boundary of this Specious Present, and the position of $B1$ represents the date of its later boundary... The perpendicular $B1C1$ represents the maximum degree of presentedness. The perpendicular to $A1B1$ from any point in AB , such as $A2$, which is intermediate between $A1$ and $B1$, will cut the line $A1C1$ at a certain point which we will label " $a21$ ". The length $A2a21$, thus intercepted, will represent the degree of presentedness of an instantaneous cross-section of the content of the Specious Present $A1B1C1$ at the date represented by $A2$.¹²⁵

So far, Broad has just explained the way that the diagram succeeds in representing his account. However, he then goes on to say the following:

Since there is continuity in our experience in respect of degree of presentedness, there can be no question of any Specious Present having an *immediate* successor, as, e.g. the integer "has for its immediate successor the integer 3, The series of successive Specious Presents must be *compact*, like the series of rational fractions; i.e. between any two Specious Presents, such as $A1B1C1$ and $A3B3C3$, there will always be an intermediate one, such as $A2B2C2$. Naturally this fact cannot be represented in the diagram. We must therefore remember that, between any two Specious Presents

¹²⁵ Broad, *Examination of McTaggart's philosophy*, 285.

represented in the diagram, there will always be an infinite number of others not represented. Now the contents of any two Specious Presents which are near enough to each other in time will partially, but *only* partially overlap.¹²⁶

At this point, some of the issues raised in the previous two chapters become important. Broad is looking here to account for the 'continuity' of consciousness by suggesting that Specious Presents overlap one another. Recall that the sense in which 'consciousness is continuous' is in the sense of 'extreme continuity', rather than 'strict continuity'. In chapter two I suggested that 'extreme continuity' consisted of two claims: a) any object of experience is experienced "as following on from what was experienced immediately before it, and b) the boundaries of Time-Windows are not manifest in the phenomenology of experience in any way.

Here, Broad is proposing that we account for this 'extreme continuity' by positing a strictly continuous series of overlapping Time-Windows. By making this suggestion, Broad is able to account for the way that any object of experience is experienced as following on from what came before it. Unfortunately for Broad, it is this suggestion that gives rise to various problems with his account - the 'problem of repeated contents' and 'the problem of lingering contents' - problems that I shall discuss in the next section.

¹²⁶ Ibid.

§3: Early versus Late Broad

Over the course of presenting Broad's late account, a worry about what 'presentedness' is appears to have arisen. Given that Broad's commitment to 'presentedness' looks to be the main point of departure from his early account, we might question the extent to which Broad's late account can really be seen as an improvement upon that early account. Broad's early and late views differ in how they capture the phenomenology of temporal experience - with late Broad attempting to provide a more convincing response to the memory theorist's objection. My approach to the distinction between the views is thus slightly different to that of Dainton, who claims:

There are two main differences [between early and late Broad]. Broad no longer believes momentary acts are mere fictions; he now takes the view that an extended stream of consciousness consists of a compact series of momentary acts. Then there is the property of presentedness which all contents are alleged to possess to a greater or lesser degree.¹²⁷

Having argued that Broad's early account takes momentary acts to be 'mere fictions' in a sense that doesn't conflict with him also claiming that 'there are instants at which we experience intervals', I am not sure that this is the best way to draw the distinction between late and early Broad.

¹²⁷ Dainton, *Stream of Consciousness*, 145.

The claim Dainton attributes to the late Broad – ‘an extended stream of consciousness consists of a compact series of momentary acts’ – doesn’t look all that different from the claim made by the early Broad that “If we imagine a continuous series of momentary acts between O1 and O2 we can regard them as momentary sections of an act or process of finite duration.”¹²⁸ As mentioned above, however, I am in agreement with Dainton that ‘presentedness’ marks an important distinction between Broad’s early and late accounts.

Taking up a worry raised earlier, we can ask, ‘does the introduction of ‘presentedness’ provide a genuine improvement in Broad’s early account? Dainton has provided the following objection to Broad’s talk of ‘presentedness’:

Since Broad doesn’t elaborate on what presentedness is, we must consider the various possibilities. One option is simply to equate presentedness with... ‘force and vivacity’...The difficulty here is that contents of the same type but of different intensity are often experienced together, simultaneously... If differences in presentedness consisted in differences in ‘force and vivacity’, we would often be mistaken – or at least seriously confused – as to the temporal order of perceived happenings. But we are not.¹²⁹

¹²⁸ Broad, *Scientific Thought*, 349-50.

¹²⁹ Dainton, *Stream of Consciousness*, 149-50.

Of course, this objection isn't going to trouble Broad, as nowhere does he equate 'presentedness' with 'force and vivacity', nor give any hint that this is what he has in mind.¹³⁰ Dainton acknowledges this, and discusses an alternative proposal:

We seem obliged to conclude that presentedness is a *sui generis* phenomenal property...But this proposal also seems flawed... when we hear a sound while seeing a colour, we are aware of the auditory and visual characteristics of these contents, but we are not aware of any additional phenomenal characteristic that is common to both. So the problem is that there just does not seem to be any such property. In response, it could be argued that there must be such a property, or else we would not be aware of contents fading into the past. Against this it could be responded that this 'fading into the past' is a postulate of Broad's theory rather than anything we find in experience itself.¹³¹

Now, I am not sure that Broad would want to claim that the property of 'presentedness' is needed to explain how it is that we get to be aware of contents *fading into the past* – especially given his commitment to a view on which events experienced in the specious present are experienced *as present*. Rather, Broad would claim that the property of 'presentedness' is needed to explain how it is that we get to be aware of the earlier parts of temporally extended happenings *as present*.

¹³⁰ This hasn't stopped other philosophers from suggesting that 'presentedness' could be thought of as 'force and vivacity' – e.g. Mabbott, "I.-Our Direct Experience of Time," 162. and Le Poidevin, *The Images of Time*, 91.

¹³¹ Dainton, *Stream of Consciousness*, 149-50.

If this is the right interpretation of Broad, it makes Dainton's next move ('a postulate of the theory rather than anything we find in experience') unconvincing – after all, the postulate of Broad's theory, on my interpretation, is the following: we experience temporally extended happenings *as present*. This looks, unless one buys the 'memory theorist' arguments about the present, like a perfectly acceptable postulate of Broad's theory.

Perhaps there are other problems facing the notion of 'presentedness'. Dainton has suggested the following: on Broad's late account, the tone *Mi* will have different characteristics when it occurs in different specious presents: specifically, it will possess different amounts of the 'psychological characteristic' of presentedness. However, Dainton observes:

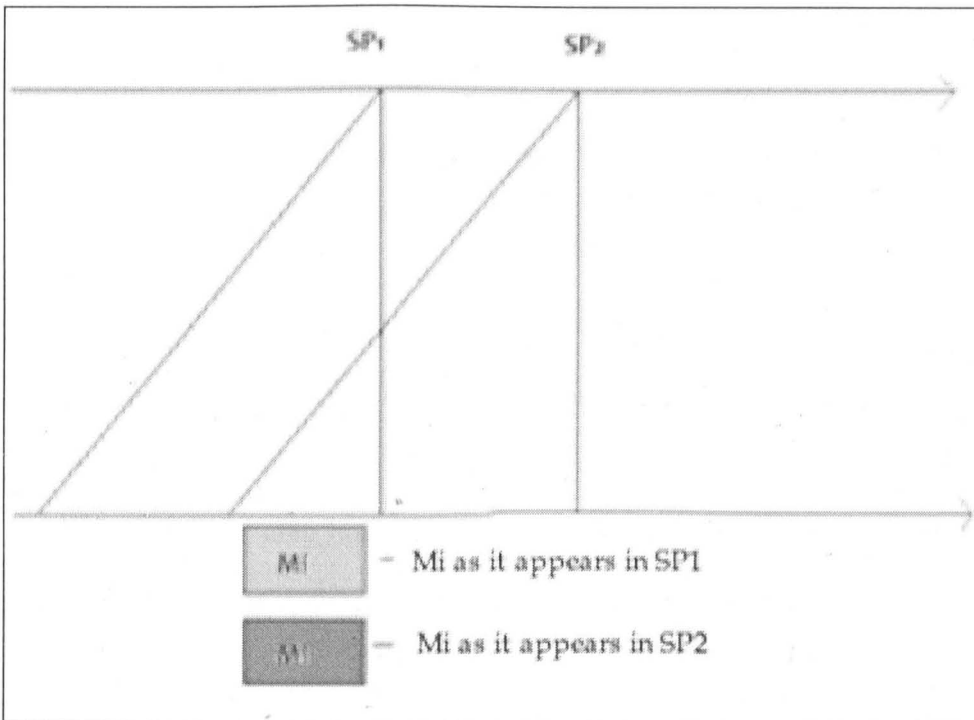
In supposing that when we apprehend *Mi* as possessing different degrees of presentedness we are apprehending one and the same tone-content, we are supposing that this content possesses different and incompatible intrinsic properties at the same time. This is impossible.¹³²

We can think of Dainton's objection in the following way: what I am aware of, on Broad's late account, can't *both* be genuinely temporally extended, *and* possess different degrees of presentedness. Consider the diagram below. In the first specious present (SP1), *Mi* possesses a greater average degree of presentedness (represented

¹³² Ibid., 147.

by the dark shade of grey) that it does in the later specious present (SP2) – the lesser average degree of presentedness is represented by the lighter shade of grey.

If what I am aware of in both specious presents is the same temporally extended M_i , then it looks as though Broad's account requires that the same temporally extended happening possess different average degrees of presentedness at the same time. This is problematic given that degree of presentedness is supposed to vary depending upon the temporal position in the specious present that an event occupies – if M_i possesses two different degrees of presentedness at the same time, then presumably it will occur in both specious presents as possessing these two degrees of presentedness. This, Dainton thinks, cannot be right.



If Dainton's objection holds, then it doesn't look as though Broad can claim that the objects of experience can both be genuinely temporally extended, and possess different degrees of presentedness. Of course, Broad could make his account work by dropping the claim that the objects of experience are genuinely temporally extended abandoning his sense-datum theory in favour of an intentionalist account. This is what Dainton suggests that Broad should do. On this alternative view, at any moment, I am in a state that *represents* temporally extended happenings. Each instant of the temporally extended happening is represented as possessing a different degree of 'presentedness'.

Dainton suggests that the only way for Broad to avoid this objection is if his account drops the 'sense-data' approach, and plumps instead for the 'intentionalist' approach (like that of Michael Tye, which I discuss later). Dainton claims:

This does not mean his theory is false, it just means it is not the kind of theory one might initially take it to be.¹³³

In fact, when we look more closely at Dainton's objection, we will note that it is the *objection* that is not what one might initially take it to be. That is, we can note that Dainton's objection only holds given certain assumptions about the metaphysics of time: namely, that an A-theorist account on which we are to think of time being 'two-

¹³³ Ibid.

dimensional' is to be rejected. In his book, *Time and Space*, Dainton discusses the two-dimensionalist model:

Our problem is that, while one and the same object can have incompatible intrinsic properties by having them at different times, it seems incoherent to suppose that *a single time* (or events at that time) can have incompatible intrinsic properties at that very time. Posing the problem in this way suggests a solution: why not say that a single time can possess incompatible properties in just the same way as an enduring object; that is, by possessing them at *different* times? For this to be the case there must exist an additional dimension: of time, *meta-time*, which is such that ordinary moments of time endure along this extra dimension.¹³⁴

This approach is precisely what Broad has in mind when developing his account. In *The Philosophy of C.D. Broad* he suggests that:

[The account] becomes considerably clearer when stated in terms of 2-dimensional time.¹³⁵

Broad thus looks to resolve issues about the same event-particle, at a time, possessing incompatible degrees of presentedness by appealing to the two-dimensional theory of time. Now, we might have reason to reject this account of the metaphysics of time as unsatisfactory (though I shall not go into these issues here),

¹³⁴ B. Dainton, *Time and space* (McGill Queens University Press, 2001), 21.

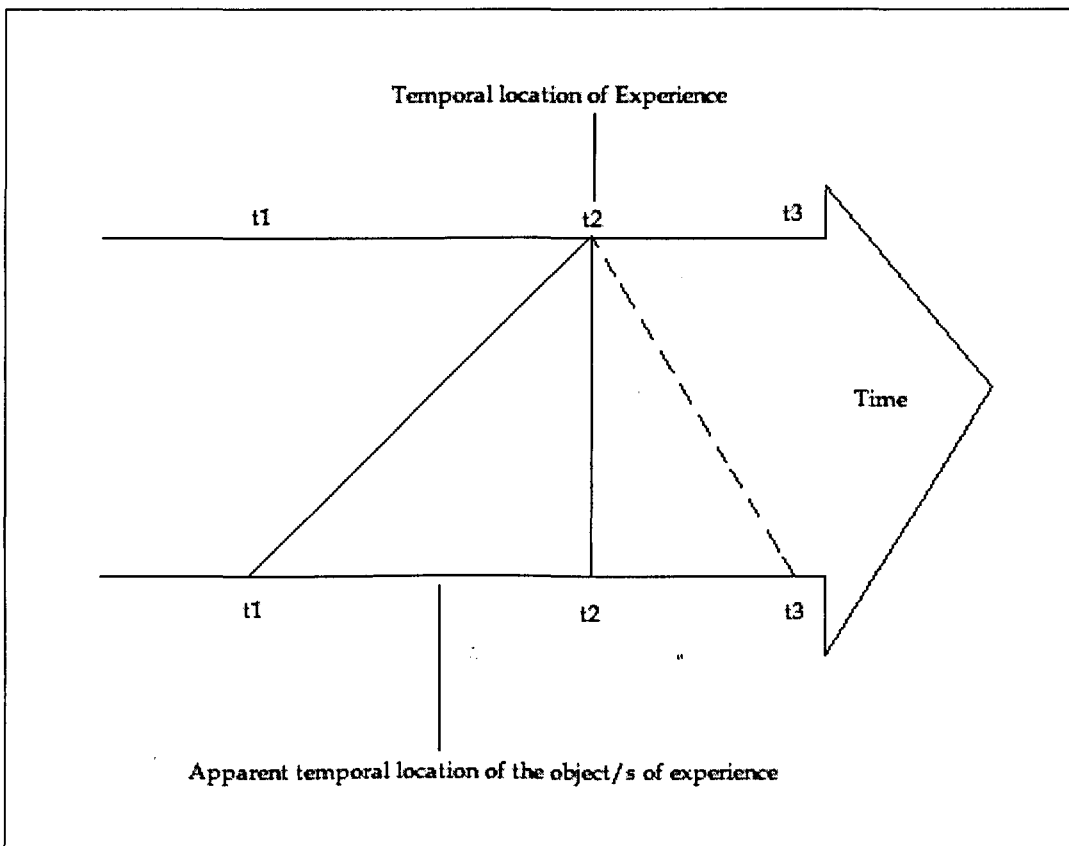
¹³⁵ Broad, *The philosophy of CD Broad*, 772-3.

but in committing to this, Broad provides at least a satisfactory first response to Dainton's objection.

This 'two-dimensional' part of Broad's account isn't stated in *An Examination of McTaggart's Philosophy*, which may explain Dainton's 'intentionalist' reading. However, bearing the '*The Philosophy of C.D. Broad*' remarks in mind, it looks as though Broad is certainly best interpreted as a sense-data specious present theorist – it is the kind of account it initially appears to be!¹³⁶

We can now return to the problem of repeated contents mentioned earlier in conjunction with Broad's earlier account. The problem of repeated contents is a consequence of the attempt to render a 'triangular' account as close to 'rectangular' as it can get. Recall that a 'triangular' account is an account that advocates the kind of model represented in the diagram below:

¹³⁶ Even though we might not find Dainton's objections persuasive, one reason that Broad's introduction of 'presentedness' might strike us as unsatisfactory is that it looks like a label for the problem: having rejected Memory Theory, and claimed that other Specious Present Theories are mere 'verbal tricks', Broad is forced to provide some positive account of how something temporally extended can be perceived as present. The worry about the sui generis feature 'presentedness' is thus that it is a mere label for the problem that Memory and Specious Present Theories are grappling with.



This feature of the problem will become apparent in what follows. Dainton suggests that Broad's introduction of 'presentedness' enables him to respond to the problem of repeated contents:

Now recall the problem of repeated contents: *successive acts apprehending numerically the same content*, with the result that every content is experienced many times over. This problem is also solved, for according to the current theory, although a particular content such as *Mi* is apprehended by a succession of distinct acts, each act

apprehends *Mi* as possessing a different, and gradually diminishing, degree of presentedness.¹³⁷

Why, we might wonder, does each act apprehending *Mi* as possessing a different degree of presentedness solve the problem of repeated contents? After all, we are still apprehending the note *Mi* repeatedly. Dainton appears to take it that the problem concerns our repeatedly apprehending, not the same object in the world, but the same 'phenomenal object'.

It is true that the majority¹³⁸ of formulations of the problem of repeated contents phrase the problem in terms of awareness of 'presentations', 'phenomenal items', or 'experiences', but this may owe more to their being formulated by philosophers who adhere to views on which we are directly aware of experiential, as opposed to physical, items. Foster and Sprigge both phrase the problem of repeated contents in this way:

If the temporal patterns of successive total presentations overlap, we seem forced to say that *their common component is twice presented*, first as the object of one presentation, and then as the object of another...Granted that phenomena are universals, this consequence is logically unobjectionable, but the fact is that it is not true to the character of my experience. Although I directly see the ball successively

¹³⁷ Dainton, *Stream of Consciousness*, 146.

¹³⁸ Dainton's, Foster's, and Sprigge's.

occupy adjacent positions, so long as the ball keeps moving I only once see it at any given position.¹³⁹

Consider a stretch of experience which is more than instantaneous but shorter than the specious present. It seems that it must be experienced an infinity of times... as the consciousness-water flows on, *it will be experienced within an infinite series of different positions within the specious present* until at last some of it has passed out of it...What is objectionable here is not primarily the idea that each experience falling within the specious present is repeated an infinite number of times, but that there is any such repetition at all It would remain discordant with introspection...to say that I have every experience falling within a specious present several times...even if one somehow managed only to allow a finite number of these.¹⁴⁰

Mabbott, however, doesn't seem to commit to the problem of repeated contents being a problem about the same *phenomenal* items being experienced numerous times:

Every brief sound I hear I shall hear not once but repeatedly. Nothing in my direct experience confirms this repetition. If it occurred it would obviously make listening to music or to continuous sentences a matter of the greatest complexity and difficulty.¹⁴¹

¹³⁹ Foster, *The case for idealism*, 176.

¹⁴⁰ T. L.S Sprigge, *James and Bradley: American truth and British reality* (Open Court, 1993), 203-4.

¹⁴¹ Mabbott, "I.—Our Direct Experience of Time," 161.

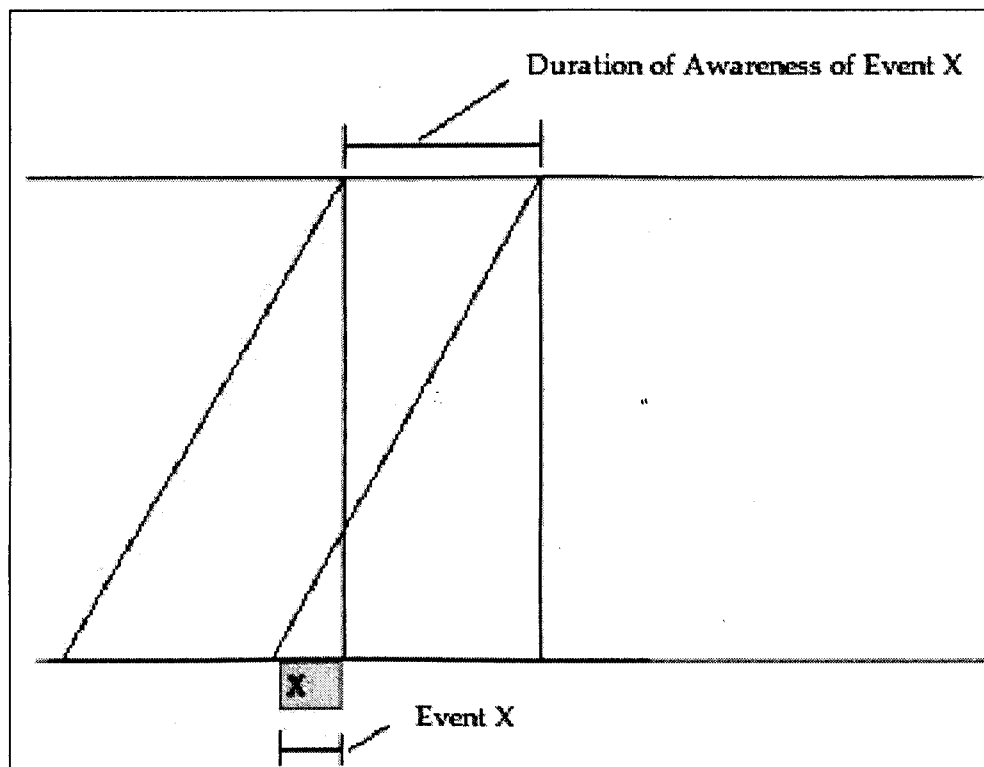
The problem of repeated contents must be faced by any view that proposes that specious presents overlap. How is the problem supposed to work? The initial problem, I take it, is to something like the following: On a particular occasion it can seem to me that I experience a clicking sound once; however, Broad's theories both suggest that I experience that clicking sound more than once - how can this be reconciled with the initial seeming?

In response to this worry, I presume that Broad will draw attention to the fact that he has 'abandoned the fiction' of there really existing a series of individual momentary acts that represent intervals. Rather than there being a series of experiences of the same thing, then, he will rather want to say that we *remain* in experiential contact with the event. While we remain in contact with the item, its temporal position relative to the subject will appear to change - it will appear to possess less and less 'presentedness'.

This strategy for responding to the 'repeated contents' objection can be found in Tye's account of temporal experience - which I shall discuss in the next chapter. Unfortunately, for both Tye and Broad, this response to the objection merely defers the problem - as is shown by a related objection: the *lingering contents* objection.

On Broad's early account, it looks as though he is committed to the idea that we can perceive certain events for periods of time longer than the periods of time those events occupy. In the case of an event of short duration, X, I am still aware, via

perception, of that event for a period of time considerably longer than the event itself, as the diagram below shows.



This kind of consideration provides us with a worry in the same mould as the 'repeated contents' problem - namely the clash between the way the experience seems to the subject (it seems as if we are aware of X for as long as X goes on for) and what the theory says about the situation (the subject is aware of X for *longer* than X goes on for). Dainton has called this problem the 'lingering contents' problem.¹⁴²

¹⁴² Dainton, *Stream of Consciousness*, 156.

This problem, like the 'repeated contents' objection, is a consequence of Broad's attempt to account for extreme continuity while simultaneously advocating Thin-PSA. The attempt to do this results in the contents of different Specious Presents overlapping – and it is concern about this overlap that motivates both objections.

It initially looks as though the introduction of 'presentedness' as a property that admits of *degree* could possibly be used to provide a response to the 'lingering contents' problem. This is what Dainton has in mind when he talks of Broad giving an account on which events are experienced as 'fading into the past':

It is natural to describe *Mi* in successive specious presents as one and the same tone sinking into the past, for it will *seem* to us as though we are apprehending numerically the same to from a succession of slightly different temporal perspectives – or at least this is what Broad's theory posits to be the case.¹⁴³

As mentioned earlier, it isn't clear that Broad would want to say that we experience things as 'fading into the past' – 'presentedness' is introduced to explain how it is that we get to experience things *as present*. However, remarks such as the following from Broad...

The...sound as a whole continues to be presented, but with steadily diminishing degree of presentedness. [At one point]... the...sound is just on the point of ceasing

¹⁴³ Ibid., 147.

to be *presented* and being at most *remembered*. [Later]...nothing is any longer presented of the sound...except the ghost of the [last part of the sound] in the act of vanishing.¹⁴⁴

...make the kind of interpretation suggested by Dainton tempting. My diagnosis of what Broad is up to in making this kind of remark is that he is being pulled in two different directions: there is a tension between two different data to be accounted for in his account. On the one hand, Broad is attempting to account for the Sensorial Presence of temporally extended happenings in perception. On the other, when faced with concerns about *overlap*, he retreats to the claim that he is attempting to account for the Memorial Presence of temporally extended happenings.

The worry that the 'lingering contents' objection raises for Broad's account (and will also raise for Husserl and Tye's accounts) is that his account begins to look as though it is an attempt to account for Sensorial Time-Windows and Memorial Time-Windows simultaneously. The problem with this is that only the *first* of these features is perceptual. That is, the reason that the 'lingering contents' problem is a problem for Broad is that it *doesn't* seem to us that our perceptual experience of event X goes for longer than event X itself.

It looks as though it is certainly true that, normally, I will remain aware of event X for a period of time longer than that taken up by event X. However, as discussed in chapter three, it doesn't look right to say that this awareness is *perceptual*. When

¹⁴⁴ Broad, *The philosophy of CD Broad*, 773.

Dainton suggests that we can think of Broad as responding to this problem by giving an account of our awareness of events as 'fading into the past', then, we can interpret Dainton as suggesting that Broad's account might be better thought of as capturing the kind of non-perceptual awareness of events picked out by the Memorial Time-Windows claim.

I take it that the clash between the phenomenology of our perception of temporally extended happenings and Broad's account of this phenomenology (a clash brought out by the 'lingering contents' objection) gives us reason to reject the account, at least as an attempt to explain Sensorial Time-Windows. Might Broad's account prove successful in accounting for Memorial Time-Windows? Things don't look promising - the feature to be accounted for is that of our being aware of events as *just past* - on Broad's account, however, any event-particle that possesses any amount of 'presentedness' is experienced 'as present'.

§5. Conclusion:

It looks as though Broad doesn't provide us with an adequate account of our perception of temporally extended happenings. I have suggested that we ought to draw a distinction between two phenomena, one of which is perceptual (experience of temporally extended happenings), and one of which is *not* (keeping track of recently experienced temporally extended happenings via a faculty distinct from perception).

I have suggested that Broad's account fails as an account of the first of these phenomena, and doesn't look promising as an account of the second. One reason for thinking that the second of these is not perceptual is because of its possession of a feature that clashes with the phenomenology of our perception of temporally extended happenings – our perception of something doesn't seem to last for longer than the something perceived.

The problems facing Broad can be expressed in the form of a dilemma: either a) he claims that Specious Presents overlap, in which case he faces the 'lingering contents' objection, or b) he denies that Specious Presents overlap, in which case he fails to account for 'extreme continuity'. This dilemma, I suggest, is one that we ought to attempt to pose for *any* account that commits to the Thin-PSA. In the next chapter, I shall do precisely this. I shall discuss the views of Husserl, Tye, and Le Poidevin, and see if they are able to successfully avoid 'Broad's dilemma'.

Chapter Five: Thin-PSA Accounts Part Two: Le Poidevin, Husserl, and Tye

§1. Introduction

In this chapter I provide discussion of three other accounts of temporal experience that commit to the Thin-PSA: the accounts of Le Poidevin, Husserl, and Tye. I discuss in more detail the exact nature of Le Poidevin's account – an account that makes revisionary claims about the phenomenology, and claim that the account's revisionism renders it an *inadequate* account of the phenomenology of temporal experience.

In my discussions of Husserl and Tye, I argue that the problems facing their accounts are the same as those facing Broad in the previous chapter – namely the problem of 'lingering contents', and the accusation that their accounts look more like accounts of the Memorial Time-Windows claim than accounts of Sensorial Time-Windows.

In the case of Husserl, I suggest that, despite this problem, we ought to retain his account precisely *as* an account of Memorial Time-Windows, but that we need to account for Sensorial Time-Windows without commitment to the Thin-PSA. In the case of Tye, I suggest that his account *doesn't* look as though it can be used in this way, and that it should be rejected.

§2. Le Poidevin

I have already provided, in chapter three, a very brief discussion of Le Poidevin's account. Le Poidevin is a Memory Theorist, who claims that only a 'snapshot' is every temporally present to the subject. Unlike another Memory Theorist, Husserl, who – as we saw – on one interpretation, thinks that more than a mere snapshot can be *sensorially* present, Le Poidevin claims that all that can be sensorially present to the subject at a time is a snapshot.

Le Poidevin sets up the problem of temporal experience in the form of what he calls a 'phenomenological paradox' constituted by three pieces of phenomenological data. The first datum is the claim that we experience things as present:

What we experience, we experience *as present*. If we have a single experience of two items as being present, then, surely, we experience them as *simultaneous*.¹⁴⁵

The first sentence in the above draws attention to the feature of experience that I have described as 'Temporal Presence'. The second sentence is the claim that if two items are temporally present in the same experience, then they will be experienced as simultaneous. This conception of what can be admitted as 'Temporally Present' is what marks Le Poidevin out as a Memory Theorist.

¹⁴⁵ Le Poidevin, *The Images of Time*, 87.

The second datum Le Poidevin draws to our attention is that we can perceive motion, where we are to think of motion as involving something occupying successive positions:

There is nothing inferential, it seems, about the perception of... motion: it is simply given in experience...in motion perception...we see an object occupying *successive positions*.¹⁴⁶

Note that, at this point, the datum to be accounted for is that we see an object *occupying successive positions* – this will become important in what follows, as Le Poidevin will attempt to isolate two purportedly distinct features of such an experience. He will attempt to isolate an experience of ‘pure motion’ from experience of an item occupying successive positions.

The third and final datum he notes is that we must perceive the successive positions occupied by an object in motion as non-simultaneous, otherwise we will fail to perceive motion – we will just see a blur:

We must see these [successive positions] as non-simultaneous, for otherwise we would just see a blur.¹⁴⁷

¹⁴⁶ Ibid., 88.

Le Poidevin now notes that we cannot accept both the first and the second data at face value. If motion is to be thought of as involving an object non-simultaneously occupying a series of different positions, then we cannot perceive those different positions as present – for, by the first datum, to perceive those items as present, is to perceive them as simultaneous.

How should we respond to this paradox? Le Poidevin suggests two ways to respond – neither of which “seems at all comfortable”¹⁴⁸. The first is to drop the first claim – that what we perceptually experience, we experience *as present*. The second is to drop the second claim – that in motion perception, we see an object occupying successive positions. Despite its lack of comfort, the second option is what Le Poidevin plumps for:

What we have here are two neural mechanisms in play. One system registers what we might call ‘pure’ motion, i.e. gives rise to the impression of motion without any associated sense of change of relative position. It is this system that is responsible for the sense of perceiving motion as happening *now*. Another system, the one that employs short-term memory, takes a series of snapshots of an object’s relative position and compares them. That system gives rise to the sense of change of relative

¹⁴⁷Ibid.

¹⁴⁸ Ibid.

position, but it cannot unproblematically be said to give rise to the sense of change of relative position happening *now*.¹⁴⁹

Le Poidevin's proposal, it appears, is to divide his second datum into two parts, and account for each part independently. The second datum was that:

There is nothing inferential, it seems, about the perception of... motion: it is simply given in experience...in motion perception...we see an object occupying *successive* positions.¹⁵⁰

The two purportedly separable parts of this datum are a) the 'pure' experience of motion, and b) the experience of an object occupying successive positions over time. Ordinarily, when we reflect upon experience, it doesn't seem as if an object's moving is something that can be separated from an object's occupying different positions over a temporal interval.

However, Le Poidevin's suggestion is that such an experience involves two components: the experience of 'pure motion', and the subject's grasp of the different positions occupied by the object. Of these two components, only 'pure motion' can be experienced *as present*.

¹⁴⁹ Ibid., 89.

¹⁵⁰ Ibid., 88.

Why should we agree with Le Poidevin that the experience of an object moving through space is separable into these two components? How is this separation justifiable on the basis of the phenomenology? In support of his position, Le Poidevin turns to the treatment of certain illusions – he cites the ‘waterfall’ illusion, a case in which these two components – ‘change of position’ and ‘pure motion’ – come apart:

If, while keeping one’s eyes as still as possible, one looks for a long time a continuous movement in a particular direction – as when, for instance, we watch a waterfall, or railway tracks flying past when we are looking out of the carriage – and then turns one’s gaze to a stationary object, it will seem for a while to move in the opposite direction.¹⁵¹

Le Poidevin suggests that we ought to agree with Richard Gregory’s characterisation of what is going on in these scenarios:

Gregory’s suggestion is that two neural mechanisms are involved here, one for detecting motion, and the other for detecting change of position... One system registers what we might call ‘pure’ motion, i.e. gives rise to the impression of motion without any associated sense of change of relative position... Another system, the one that employs short-term memory, takes a series of snapshots of an object’s relative

¹⁵¹ Ibid.

position and compares them. That system gives rise to the sense of change of relative position.¹⁵²

There are two obvious stages at which we could object to Le Poidevin's suggestion. Firstly, we could object to the claim that the phenomenology of the experience is best characterised by the involvement of 'pure motion' as well as 'change of position'. We might want to stress that the reason that the waterfall illusion is paradoxical is precisely because the object appears to be *changing position* without changing position, not that it appears to be *moving* (in the sense of 'pure motion') without changing position.

The second objection we might want to make is that establishing that distinct neural mechanisms are sensitive to different features of the environment ('motion' and 'change of position' respectively) doesn't straightforwardly tell us anything about the content of an experience that involves those mechanisms. *Prima facie*, it is just as plausible that both mechanisms could generate experience of a change of position, as it is that one could generate experience of 'pure motion'.

We thus have two reasons to be concerned about Le Poidevin's suggestion that we can divide his second datum in two: we have a concern about whether his suggestion best captures the phenomenology, and a concern about whether the involvement of distinct neural mechanisms makes his proposal any more convincing than it would be *without* the appeal to their involvement.

¹⁵² Ibid., 89.

In fact, Le Poidevin acknowledges that his account is “speculative” – presumably for these kinds of reason.¹⁵³ However, worries about the speculative nature of the account can be put to one side if it can be shown that the distinction between ‘pure motion’ and ‘change of position’ solves the problem of temporal experience, at least in the case of motion.

The proposal, as we noted in conjunction with the first datum Le Poidevin put forward, is a proposal about experience *at a time*. It can thus be assessed as an attempt to solve the problem of temporal experience set out in chapter one: ‘how are we to characterise a subject’s experience at a time?’ Consider a subject experiencing something moving at *t*. Le Poidevin’s proposal for how we ought to attempt this characterisation is that, at *t*, the subject is sensorially aware of a snapshot, retains awareness of the past positions of an object in short term memory, and is aware of the sensation of ‘pure motion’.

As discussed in chapter three, the problem with Le Poidevin’s account is that we cannot discern ‘snapshots’ in temporal experience. Neither, we can also note, can we straightforwardly discern the sensation of ‘pure motion’ Le Poidevin appeals to (as suggested above, in the ‘waterfall’ cases, it isn’t clear that ‘pure motion’ is genuinely involved).

¹⁵³ Ibid., 90.

These worries about Le Poidevin's account of the phenomenology suffice to give us reason to reject Le Poidevin's account, especially if it can be shown that an account can be provided that gives a more satisfactory account of the phenomenology, while simultaneously explaining away the intuitions motivating Le Poidevin's proposal. I shall attempt to provide just such an account in chapter seven.

Now I want to briefly discuss the *generalized version* of Le Poidevin's account, as he doesn't just want to account for the experience of motion – he also wants to account for the experience of change more generally:

[the account of motion perception]...needs to be generalizable if it is to resolve the paradox. For we are also aware, in an apparently non-inferential way, of change in pitch when we are listening to a piece of music, or of the passage of thoughts when we are doing nothing more than daydreaming. Are there two mechanisms underlying change detection in these cases too?¹⁵⁴

The question Le Poidevin is interested in here is whether or not a similar response to that given in the case of motion can solve the problem of change perception more generally. Recall that Le Poidevin's solution to the motion case was the following: when we perceive motion, at an instant, a psychological mechanism produces a sensation of 'pure motion – so at that instant, we have a "sense of perceiving motion as happening *now*"¹⁵⁵.

¹⁵⁴ Ibid.

¹⁵⁵ Ibid., 89.

How does this solution work in a non-motion case? The case Le Poidevin discusses is that of our hearing two notes successively – first we hear a C, then we hear an E:

What I want to suggest is that the conjunction of the very recent memory of C with the perception of E gives rise to an experience of ‘pure succession’. That there should be such a sense is not at all implausible when we reflect on the existence of the primitive mechanism that Gregory appealed to for pure motion detection, which is distinct from the mechanism for detection of change of position.

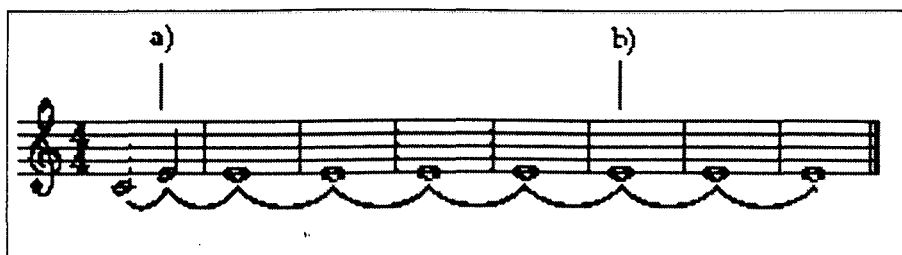
The proposal in this case, then, is the same as in the case of motion, only with ‘pure succession’ replacing ‘pure motion’. Le Poidevin seems to suggest that it is plausible that ‘pure succession’ exists because ‘pure motion’ purportedly exists in the case of movement. It isn’t entirely clear what we ought to make of this suggestion – why should the existence of one type of sensation make it plausible that *another* type of sensation exists? One answer (though not very convincing) might be the existence of some neural mechanism. However, Le Poidevin claims that he isn’t suggesting there is any such mechanism:

I am not suggesting that a similar mechanism exists for sounds (though it may). I am simply putting forward the phenomenological thesis that we perceive succession of notes in a way that can be distinguished from perceiving C being followed by E. The latter, though not the former, involves a relation, and since such a relation could not be perceived independently of the relata, the suggestion that we perceive E’s following C inclines us to suppose that C and E have somehow to be perceived

together. What gives rise to the experience of pure succession, in contrast, is the conjunction of the perception of E with the very recent memory of C.¹⁵⁶

So, the reason we ought to accept that there is such a thing as 'pure motion' is not that there is some neural mechanism identified as giving rise to such a sensation. Rather, the reason we ought to accept 'pure motion' is in order to provide an account of the difference between two distinguishable scenarios.

The two scenarios in question are described in the first half of the quotation above: 'we perceive succession of notes in a way that can be distinguished from perceiving C being followed by E'. I am not sure exactly what Le Poidevin means here, but want to suggest that he may have something like the following in mind. If we return again to the example of the concert, we can suppose that there is a passage in the concert that features a transition in which one instrument plays C, followed by E, which it then sustains for a long period of time. This scenario is represented in the diagram below:



¹⁵⁶ Ibid., 91-92.

A characterisation of the subject's experience at a) will be importantly different from a characterisation of the subject's experience at b). In both cases, the subject will perceive the E, and may have retained contact with the C via short-term memory. There will be one crucial difference however, for in the case of a), it looks as though the subject's perceptual experience will be correctly characterised in terms of both the C and the E, whereas in the second case, it looks as though a correct characterisation of perceptual experience will only require reference to the E.

In both cases, E is sensorially present, and C is memorially present. The crucial difference between the two cases is that it looks tempting to say that, in the case of a), note C is sensorially present along with E. At a), the subject is experiencing the transition between C and E – experiencing E succeeding C, but at b), the subject is not. It is this distinction, I think, that Le Poidevin introduces 'pure succession' to account for. Rather than adopting the Specious Present Theorist's position, and agreeing that C and E are both sensorially present together at a), Le Poidevin claims that in both the cases of a) and b), E is sensorially present, and C memorially present, and that the first case is to be distinguished from the second via appeal to 'pure succession'.

Le Poidevin's methodology – of providing two different cases, and then providing an account of the difference between them – is clearly going to be vulnerable to any alternative account that can also provide an account of the difference. My strategy for setting out an alternative to Le Poidevin's view is thus going to exploit this vulnerability. In chapter seven, when I set out my account of temporal experience, I shall provide an account of the difference that Le Poidevin has in mind by giving an

account of how the subject's phenomenal state at a time depends upon a temporally limited portion of experience encompassing the time in question. The account that I shall propose has the advantage of not positing the mysterious *sui generis* sensation of 'pure succession' that Le Poidevin appeals to.

§3. Husserl

I now want to turn to a discussion of Husserl's account. I shall suggest that Husserl's account faces the same problems as Broad's – namely, the problem of lingering contents. However, unlike Broad's, I shall argue that Husserl's account is salvageable as an account of the Memorial Time-Windows claim, even if it ultimately fails as an account of Sensorial Time-Windows.

Husserl's starting point is his acknowledgement that experiences of temporally extended happenings are *themselves* temporally extended:

It is certainly evident that the perception of a temporal object itself has temporality, that the perception of a duration itself presupposes the duration of perception, that the perception of any temporal form itself has temporal form.¹⁵⁷

¹⁵⁷ Husserl, *On the phenomenology of the consciousness of internal time (1893-1917)*, 24.

From here, Husserl sets up what he takes to be the problem of temporal experience. Beginning with the thought that experiences of temporally extended happenings *are themselves* temporally extended happenings, he provides an argument to show that *more* than appeal to the temporally extended nature of experiences is required if we are to explain how it is that we can experience temporally extended happenings.

While the general structure of how Husserl arrives at his memory theorist position is similar to the account of the genesis of memory theories set out chapter one, there are some important differences. While Husserl's account certainly is a response to the unmodified naïve theory, it is also intended as a response to what we can call the *modified* naïve theory. Both the modified, and the unmodified, naïve theory are motivated by the following two claims:

- 1) It seems as if we can experience temporally extended happenings.
- 2) The PPC: It seems as if the duration of experience *in* which an item X is represented is concurrent with the duration that X is represented as occupying.

Both types of account attempt to explain those two claims in terms of commitment to the Metaphysical PPC:

- 3) Metaphysical PPC: The duration of experience *in* which an item X is represented is concurrent with the duration that X is represented as occupying.

Commitment to Metaphysical PPC is what is distinctive of both forms of naïve theory. The crucial *difference* between the two types of naïve theory is that the unmodified naïve theorist commits to temporally extended stretches of experience consisting of a series of 'snapshots'. As discussed in chapter two, by committing to 'snapshots', the unmodified naïve theorist is attempting to capture the way that experience keeps us 'up to date' with the way the world is from instant to instant. The modified naïve theory, in contrast, is an account on which experiences are temporally extended, but *not* to be thought of as composed of a series of 'snapshots'.

Dainton and Foster both provide different versions of the modified naïve theory. My positive account will also be a version of modified naïve theory. One thought motivating modified naïve theory accounts is that commitment to the 'snapshots' view (the *unmodified* naïve theory) appears to have the consequence that all that is ever relevant to characterising the subject's phenomenal state at a time is a 'snapshot'. Given that we don't appear to find such 'snapshots' in the phenomenology, the modified naïve theorist proposes that the unmodified naïve theory has to be abandoned.

Something like a modified naïve theory account looks to be the view Husserl ascribes to Sterne, and then attempts to reject.¹⁵⁸ Husserl has the following to say about Sterne:

Wherever a consciousness is directed towards a whole whose parts are successive, there can be an intuitive consciousness of this whole only if the parts, in the form of representants, come together in the unity of the momentary intuition. W. Sterne has objected to this 'dogma of the momentariness of a whole of consciousness' (as he calls it). There are cases in which the apprehension is extended over a stretch of time (the so-called "presence-time").¹⁵⁹

On Sterne's account, then, experiences are temporally extended – and it is this that explains how it is that we can experience temporally extended happenings. Husserl, however, doesn't think that this suffices as an explanation.

Husserl begins his argument by describing what is involved in our experience of a melody: the type of melody Husserl has in mind is composed of a series of tones, each of which ceases as the next one begins – so at any point during the melody, only one tone is sounding. Husserl's description of our awareness of this melody is the following:

¹⁵⁸ Note that in what follows, the discussion of Sterne is a discussion of his views as they feature in Husserl's account, and neutral as to what Sterne's actual position may be.

¹⁵⁹ Husserl, *On the phenomenology of the consciousness of internal time (1893-1917)*, 22.

The first tone sounds, then comes the second tone, then the third, and so on. Must we not say: When the second tone sounds, I hear *it*, but I no longer hear the first tone, etc.¹⁶⁰

David Smith has illustrated the problem that this example is supposed to raise for a naïve theory of temporal experience as follows:

If, as I am hearing a certain note in the middle of the melody, the previous note, which I have just heard, had altogether dropped out of my consciousness, so that now it is as if it had never been heard, I should not now be experiencing the present note as *following on* from the previous one, and so should have no overall awareness of the melody as something *extended* in time.¹⁶¹

Husserl's argument here against Sterne is supposed to undermine the notion that temporally extended experiences really do encompass temporally extended happenings such as melodies in a way that can explain the unity of a melody-experience. Husserl, as a Memory Theorist, is determined to retain the insight of the unmodified naïve theory – that experience unfolds moment by moment.

Husserl's worry is the same as that discussed in the first chapter: what account can be given of why an interval is relevant to characterising experience at a time? If I

¹⁶⁰ P24-25, Husserl, *Time*

¹⁶¹ A. D Smith, *Routledge philosophy guidebook to Husserl and the Cartesian meditations* (Routledge, 2003), 87.

hear one note, and no longer hear the previous one, Husserl claims, then it cannot be my *hearing* both notes that explains my hearing them as a phenomenological whole. If I no longer hear the first tone – if it has indeed ‘dropped out of my consciousness’ – then how can that tone contribute to the phenomenal character of my experience? Husserl’s answer is the following:

That the elapsed part of the melody is something objective for me, I owe – or so one will be inclined to say – to memory.¹⁶²

Husserl also notes that the same argument concerning the melody can be applied to our awareness of the tones that compose it, where the form of this argument is the following: When I hear a particular part of the temporal object, I am not hearing the parts of the temporal object that occurred before it. How, then, can those earlier parts contribute to the character of my experience?

Each tone has a temporal extension itself. When it begins to sound, I hear it as now but while it continues to sound it has an ever new now, and the now that immediately precedes it changes into a past. Therefore at any given time I hear only the actually present phase of the tone, and the objectivity of the whole enduring tone is constituted in an act-continuum that is part memory, in smallest punctual part perception, and in further part expectation.¹⁶³

¹⁶² Husserl, *On the phenomenology of the consciousness of internal time (1893-1917)*, 25.

¹⁶³ *Ibid.*

Husserl's concern about how it is that perception of the earlier phases of a temporally extended happening can contribute to the character of experience thus lead him to claim that, at a time, I only ever perceive an instantaneous state of affairs. Just as in the case of perception of the notes composing a melody, successive perceptions of the tone-phases composing the tone fail to suffice for an explanation for my perception of the tone. That, then, is Husserl's argument for why we ought to involve memory in an account of how it is that we are able to experience temporally extended happenings.

Husserl takes it to be a result of his argument against Sterne that to account for temporal experience, we should say the following: at an instant, a subject perceives an instantaneous state of affairs, remembers previously experienced states of affairs, and anticipates future states of affairs. It is worth noting at this point that Husserl distinguishes two different senses of perception – perception as “the act that originally constitutes the now”, and perception as “the act that constitutes originally”.¹⁶⁴

The first sense of perception is perception considered as that aspect of consciousness responsible for presenting a snapshot as present (we can call this ‘Snapshot Perception’). The second sense is perception considered more generally – considered as the aspect of consciousness that puts us in a particular kind of ‘direct’ contact with the world without any such constraint about things being represented as strictly present (we can call this ‘General Perception’).

¹⁶⁴ Ibid., 43.

Husserl's claim about temporal experience is that, in the first sense of perception ('Snapshot Perception'), we only perceive an instantaneous state of affairs, but in the second sense ('General Perception'), we perceive temporally extended happenings. Husserl's view is that Snapshot Perception 'blends' with other ways of getting in contact with the world, to furnish us with General Perception of temporally extended happenings:

In the consciousness that belongs to the directly intuitive grasp of a temporal object – of a melody, for example – the measure or tone or part of a tone now being heard is perceived, and what is momentarily intuited as past is not perceived. The apprehensions continuously blend into one another here; they terminate in an apprehension that constitutes the now, but which is only an ideal limit.¹⁶⁵

At an instant, then, I am aware via General Perception of something temporally extended as a result of this 'blending' of Snapshot Perception, memory, and apprehension. Husserl's claim about memory is not that memory as we normally think of it – i.e. as something related to, though both functionally and phenomenologically distinct from General Perception – is involved in General Perception. Rather, Husserl takes himself to be uncovering a new form of cognitive contact with the world that is necessarily involved in any General Perception of temporally extended happenings. The same goes for his claims about apprehension –

¹⁶⁵ Ibid., 41.

with these distinctive modes of getting into contact with reality called 'retention' and 'protention'.

At this point, we have a picture of the general shape of Husserl's account: at an instant, I am simultaneously in contact with the world in three different ways: I represent an instantaneous state of affairs as 'now' (Snapshot Perception), I represent previously perceived states of affairs as past (retention), and I represent not-yet-perceived states of affairs as future (protention). It is at this point that we may start to get concerned about Husserl's account.

One concern we might have is Dainton's worry about Memory Theory mentioned previously: that it looks like Husserl is going to have trouble explaining how it is that we get can get awareness of temporally extended happenings out of a collection of awarenesses of *instants*. Husserl claims that at an instant I perceive an instantaneous state of affairs (Husserl sometimes calls this perception the awareness of a 'primal impression'), and I remember and anticipate past and future instantaneous states of affairs. How, out of these awarenesses of instants, do we get to become aware of items with temporal extension?

To attempt to provide an answer to this question, I shall turn to Izchak Miller's discussion of Husserl. Husserl's answer appears to be that we should think of a subject's perception, retentions, and protentions as all 'components' of a subject's overall experience at an instant. On Miller's interpretation, Husserl accounts for the temporal extension of the object of perception as follows:

My experience of the temporal *spread* of the tone is accounted for by the fact that in perceptually individuating the tone, it is *constituted* by me through a continuous manifold of instantaneous tone-phase 'intentions' which exhaustively 'intend' the phases of that tone... these tone-phase 'intentions'... are *not discrete* intentions. However, they *do* play an intentional role in individuating the tone. But they play this role only insofar as the continuous manifold of tone-phase "intentions" of which they are constituents does, that role being to *locate* or "spread" the tone, *qua* intended, throughout a given interval of time... These tone-phase "intentions" are, indeed, none other than the aforementioned retentions, primal-impressions and protentions.¹⁶⁶

At an instant, then, I am having one experience (or, as Miller sometimes puts it, performing one 'perceptual act'), which involves primal impressions, retentions, and protentions as "intentional features...responsible for the temporal constitution of the...objects of acts."¹⁶⁷ This, then, is one reason why Husserl considers his view an improvement on Sterne's - as there is no question of 'intentional features' of an experience 'dropping out of consciousness' in the way he thinks earlier parts of temporally extended experiences can.

So, at a time, the subject is aware of a temporally extended happening, with the subject's awareness consisting of a Primal Impression, Protentions, and Retentions. One question for Husserl at this point concerns how we are to think of the difference

¹⁶⁶ Miller, *Husserl, perception, and temporal awareness*, 141-2.

¹⁶⁷ *Ibid.*, 142.

between these three different types of thing (Primal Impression, Protention, and Retention). One debate here concerns whether or not we are to think of the Primal Impression as some kind of sense-datum.¹⁶⁸

More important than this issue for our purposes, however, is the issue of what gets experienced as *sensorially present*. We have already seen that Husserl commits to a view on which only a snapshot can be *temporally present*, but what of sensorial presence? There are two different ways we can interpret Husserl on this issue – on one interpretation, more than a snapshot is sensorially present, and on the other, *only* a snapshot is sensorially present. Unfortunately for Husserl, both of these interpretations land his account in trouble.

Just like Broad, Husserl takes himself to be providing an account of the structure of a temporally extended experience at a time. The temporally extended experience consists of a gapless series of such structures that in turn consist of a primal impression, retentions, and protentions:

The “source-point” with which the “production” of the enduring object begins is a primal impression. This consciousness is in a state of constant change: the tone-now present “in person” continuously changes...into something that has been: an always

¹⁶⁸ For discussion of this issue, and an argument against the ‘Primal Impression’ being conceived of as a sense-datum, see: Smith, *Routledge philosophy guidebook to Husserl and the Cartesian meditations*, 84-5.

new tone-now continuously relieves the one that has passed over into modification.¹⁶⁹

The contents of the different structures will thus overlap, just as they did in both of Broad's accounts. This means that Husserl will face the problem of 'lingering contents': he will face the dilemma of whether we ought to consider his theory a theory of the sensorial, or the memorial, presence of temporally extended happenings.

This issue directly relates to the question we raised about the difference between the primal impression, and retentions and protentions. While primal impressions certainly sensorially present us with a snapshot, the dilemma facing Husserl is that protentions and retentions can either sensorially present items, in which case his account faces the lingering contents objection, or they do *not* sensorially present items, in which case we do not have an account of the sensorial presence of temporally extended happenings in perception – just an account of the sensorial presence of a 'snapshot'.

Dan Zahavi provides an interpretation of Husserl according to which all that is sensorially present to the subject at a time is a snapshot. Here is Zahavi's interpretation of what Husserl has to say about the distinction between phenomenal and sensorial presence noted in chapter two:

¹⁶⁹ Husserl, *On the phenomenology of the consciousness of internal time (1893-1917)*, 30-1.

When I perceive an object, say an armchair, the object is never given in its totality but always incompletely, in a certain restricted profile...It is never the entire armchair, including its front, backside, underside, and inside, which is given intuitively...Despite this, the object of my perception is exactly the appearing object and not...the perceptually given surface...According to Husserl, the reason why we perceive the armchair itself, although it is actually only a single profile which is intuitively present, is because of the contribution of what he terms *horizontal intentionality*.¹⁷⁰

In the case of the armchair, Zahavi notes, we can draw a distinction between the *intuitively present* parts of the armchair, and those parts of the armchair that are not intuitively present. The parts that are not 'intuitively present' feature in experience due to the involvement of 'horizontal intentionality'.

Translated into the terminology of chapter three, there are parts of the armchair that are sensorially present, and parts of the armchair that are *merely* phenomenally present, without being sensorially present. The parts that are phenomenally present, without being sensorially present, feature in experience due to 'horizontal intentionality'.

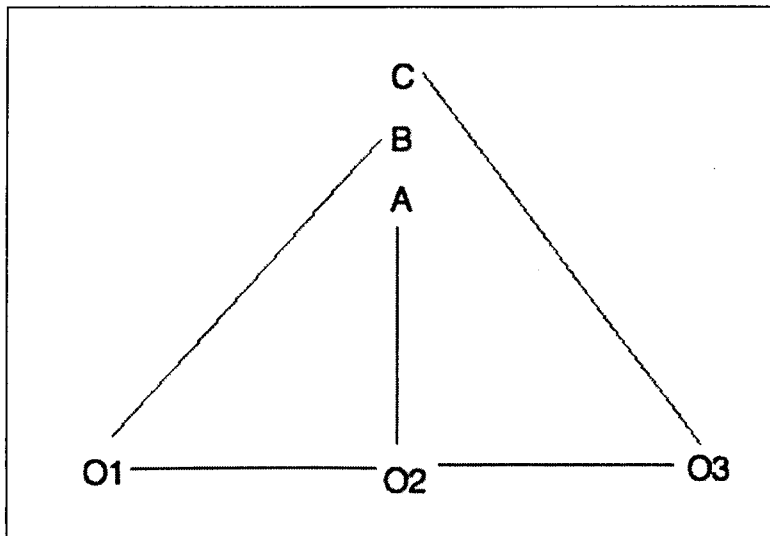
¹⁷⁰ S. Gallagher and D. Zahavi, *The phenomenological mind: An introduction to philosophy of mind and cognitive science* (Routledge, 2008), 96.

The additional claim that Zahavi makes here, that goes beyond what was said in chapter two, is that the horizontal elements contribute not only awareness of the back and sides of the armchair, but that without those elements, the side of the armchair that is sensorially present wouldn't be sensorially present *as* the side of the armchair. This is the claim that Zahavi makes use of in his interpretation of Husserl's account of *temporal* experience.

We are already familiar with the general shape of Husserl's account: at an instant, I am simultaneously in contact with the world in three different ways: I represent an instantaneous state of affairs as 'now' (sensorial perception), I represent previously perceived states of affairs as past (retention), and I represent not-yet-perceived states of affairs as future (protention). Zahavi has suggested that we think of Husserl's tripartite experiential structure in a way that parallels our awareness of the armchair:

The protentions and retentions are dependent parts of an occurrent experience. They do not provide us with new intentional objects but with a consciousness of the temporal horizon of the present object... Every actual phase of consciousness contains the structure Primal Impression (A), retention (B), and protention (C). The correlates of this...structure are the now phase (O2), the past phase (O1), and the future phase (O3) of the object. The now-phase of the object has a horizon, but it is *not* made up of the retentions and protentions, but of the past and future phases of the object.¹⁷¹

¹⁷¹ Zahavi, *Husserl's phenomenology*, 83-4.



Retentions and protentions are thus what *represent* the past and future phases of the object. However, these past and future phases are not sensorially present in perception. Rather, as Zahavi notes, they provide the *horizon* of the object. The notion of ‘horizon’ here is what provides us with our parallel between the account of how the underside of the armchair can feature in perception, and the account of how previously perceived phases of the object can feature in perception without being sensorially perceived.

Just as in the case of the armchair, where the parts of the armchair that aren’t sensorially present nevertheless make an appearance in the phenomenology, so in the case of temporal experience, parts of a temporally extended event that aren’t sensorially present at an instant nevertheless make an appearance in the phenomenology due to their being represented in retention and protention. As noted in chapter three, this position is counterintuitive, given that it doesn’t appear possible for us to discern such ‘Sensorial Snapshots’ in the phenomenology.

One reason that Zahavi may be inclined to draw this parallel between the case of the experience of the armchair and temporal experience, as regards the contribution of a 'horizon', is that the involvement of 'horizon' in the temporal case might be thought to provide some account of how it is that, out of the sensorial awareness of a snapshot, we can get awareness of something temporally extended.

Here are some remarks that Husserl makes about an object's 'horizon'. These are not remarks about the temporal case, but they can nevertheless inform our understanding of the temporal case:

The improperly appearing objective determinations are co-apprehended, but they are not 'sensibilized', not presented through what is sensible, i.e. through the material of sensation. It is evident that they are co-apprehended, for otherwise we would have no objects at all before our eyes, not even a side, since there can indeed be a side only through the object.¹⁷²

Husserl's thought is that, without the presence of the 'horizon' of the object in perceptual experience, we wouldn't even get an experience of the front of the armchair. Now, it isn't obvious from these remarks what Husserl would want to say about an experience that *lacked* the appropriate horizon, or even that he would countenance such a possibility. What we can take from these remarks is that the

¹⁷² Edmund Husserl, *Thing and space: lectures of 1907*, trans. Richard Rojcewicz (Springer, 1997), sec. 17.

horizon of the object (the object's 'improperly appearing objective determinations') plays a role in determining the nature of what we sensorially perceive.

We take it that we sensorially perceive the side of the armchair, but Husserl is suggesting that without the involvement of the horizon, we wouldn't get a *general* perception of the armchair, and so sensorial perception as of a *side* of that object wouldn't be possible. Given that Husserl also takes horizons to be involved in our experience of temporally extended events, the suggestion is that we can think of them as playing a similar role in temporal experience. In the atemporal case, the involvement of horizons is responsible for our seeing the portion of the object that is as a matter of fact sensorially presented *as* the relevant portion of an object. In the temporal case, then, perhaps we can think of the involvement of protention and retention as responsible for our seeing the part of the temporally extended event that is as a matter of fact given to us in the primal impression *as* part of something temporally extended.

Despite the ingenuity of this suggestion, the problem facing a Zahavi-style interpretation of Husserl is clearly going to be that it fails to account for the sensorial presence of *temporally extended happenings* in experience at a time. This criticism will hold for *any* interpretation of Husserl that commits to only a snapshot being sensorially present – not just Zahavi's. As I have characterised the phenomenology, what we need to account for is the sensorial presence of something with discernable earlier and later temporal parts, not just the sensorial presence of a snapshot that gets experienced *as* a temporal part of some temporally extended happening. Just as Le

Poidevin's account fails to adequately treat the phenomenology, then, so does Zahavi's Husserl.

Zahavi's interpretation of Husserl, according to which only the primal impression is sensorially present in experience, was only one of our two alternatives. On the other alternative interpretation, retentions and protentions also deliver items as sensorially present in experience. This kind of view is extremely similar to Broad's late view – the crucial difference being their attitudes to what is *temporally* present in experience at a time: for Broad, something with discernable earlier and later temporal parts; for Husserl, just a snapshot.¹⁷³

As mentioned above, Husserl's conception that an interval can be sensorially present in experience at a time faces the same problem as Broad: the problem of *lingering contents*. Items will remain sensorially present in perceptual experience for a period of time greater than the period they are represented as occupying. This is a bad result for any account, as we do not find this 'lingering' in the phenomenology. As in the case of Broad, this raises the worry that there are two jobs for retentions and

¹⁷³ Interestingly, while Broad and Husserl differ on their attitudes to what is temporally present, they both agree that the *strict* or *instantaneous* present only features in experience as an *abstraction* from what is instantaneously presented. For Husserl, the instantaneous present features in experience only insofar as it marks the boundary between what is experienced via retention and protention. For Broad, the instantaneous present features only insofar as, at a time, there will be some portion of the temporally extended object/s of experience that possesses maximum 'presentedness'.

protentions: accounting for our perception of temporally extended happenings, *and* keeping track of our changing temporal perspective on the process.

Given the clash with the phenomenology generated by interpreting Husserl's account as an account of our perception of temporally extended happenings, one way to solve this problem is to interpret Husserl's account as an account of our awareness of things via a faculty distinct from perception. This was the move suggested in Broad's case, though whereas it looked as though Broad's notion of 'presentedness' made it awkward to see how his account could succeed when so interpreted, with Husserl's account, there is no such worry.

Interpreting Husserl's account as an account of Memorial Presence thus looks like a promising move - and also generates the result that his retentional/protentional structure may be a complement, rather than a rival candidate, to the Modified Naïve Theory (the account that commits to Metaphysical PPC but rejects characterising the subject's experience at a time in terms of 'snapshots'). If we interpret the account in this way, then, assuming that some version of Modified Naïve Theory can be defended, we can say that, at a time, temporally extended happenings can be sensorially present in perception. Simultaneously with this, the subject grasps, via a protentional/retentional structure, the relative temporal location of future/past events.

Providing this kind of story will enable a Modified Naïve Theory to account for Miller's first and third features described below:

An adequate account of our perceptual awareness of a process, or an event, must – according to Husserl – deal with three main features of such an awareness: The first is the very fact that in perceiving a process we are aware, at any given instant of the duration of that awareness, of a *temporally extended part* of that process or the whole of that process, and not merely of one of its instantaneous tone-phases. The second is the fact that our perceptual awareness of a process involves a continual awareness of the *continuity of that very awareness*. The third feature is our continual awareness, during our perception of a process, of our *changing temporal-perspective* of that process.¹⁷⁴

We have seen already how Husserl attempts to deal with the first feature mentioned here – and discussed some possible concerns with the account. I have also suggested that, to avoid these problems, his account should be used to account for the *third* feature, by giving an account of Memorial Time-Windows, but not the *first*. As regards the second feature – the ‘continuity of consciousness’ described in the second chapter – it is worth briefly setting out Husserl’s account.

A puzzle arises for Husserl’s account about how we get to become aware of the continuity of consciousness, for on his proposal as it stands at the moment, the subject is only aware via protention, retention, and primal impression of a temporally extended *object of experience*. Husserl’s worry, as Miller presents it, appears to be that some account is needed of how the subject can be aware, at a time, of the temporal extension of experience *itself*.

¹⁷⁴ Miller, *Husserl, perception, and temporal awareness*, 160.

Husserl's solution to this problem is the following: we have already seen that he claims that at an instant, an instantaneous state of affairs is sensorially present in Snapshot Perception, and I remember/anticipate past/future states of affairs via retention /prehension. In fact, this description is only half complete: Husserl also claims that, while prehension and retention are 'primarily' directed at future/past primary impressions, they are also 'secondarily' directed at future and past 'act-phases':

Each later memory is not only continual modification that has arisen from primal sensation but also continual modification of all earlier continuous modifications of the same initial point.¹⁷⁵

Miller provides a helpful explanation of Husserl's slightly mysterious account as follows:

What I "secondarily" retain through a retention, according to Husserl, is not just a past primal-impression, but also that past primal-impression's co-temporal retentions and protentions. In other words, what I "secondarily" retain through a retention is a complete past *act-phase*.¹⁷⁶

¹⁷⁵ Husserl, *On the phenomenology of the consciousness of internal time (1893-1917)*, 340.

¹⁷⁶ Miller, *Husserl, perception, and temporal awareness*, 152.

That, then, is Husserl's account of how it is that I am aware of the continuous nature of my awareness over time: at a time, I retain (and prehend) past (and future) phases of my act of awareness.

Husserl takes this structure to be required, because of his commitment to thinking of temporally extended experience as consisting of a series of instantaneous structures. On his view, all that is relevant to characterising 'what it is like' for the subject at a time is the relevant instantaneous portion of experience. In order for the subject to be aware, at an instant, of some temporally extended portion of experience, it is thus necessary for Husserl to provide some account of how the instantaneous structure reflects awareness of past and future instantaneous structures: hence the positing of 'secondary retention' to play this role.

The idea of 'double retention' is that retention and protention represent past and future instantaneous structures. Of course, this whole system of 'double retention' is only required as a response to a problem particular to *thin-PSA* accounts – the problem being that on any *thin-PSA* theory, only an instantaneous portion of experience is relevant to characterising a subject's experience at a time.

On the type of account I want to propose (a *Fat-PSA* account), this problem simply does not arise, for a characterisation of the subject's experience at a time will necessarily involve appeal to a temporally extended portion of experience. Given that, on this view, a characterisation of 'what it is like' for the subject at a time will necessarily involve appeal to a temporally extended portion of experience, and not a

mere instant, there is no need for the Fat-PSA theorist to appeal to anything like a 'double retention' structure. Rather, the Fat-PSA theorist can claim, the subject gets to be aware of the continuity of consciousness *at* a time in virtue of the nature of her experience *over* some interval encompassing the time in question. I shall say more about exactly how my version of Fat-PSA theory is to work in chapter seven.

This discussion of Husserl has hopefully shown that, while the account proves unsatisfactory as an account of the sensorial presence of temporally extended happenings in perception, it is not necessarily to be discarded – as it looks as though it can be used to provide part of an account of our awareness of our changing temporal perspective on events. As regards the 'continuity of consciousness', it looks as though the Husserlian 'double retention' account is only required if we are committed to the Thin-PSA. If, as I hope to show in chapter seven, we can demonstrate that we have no need to be so committed – and that such commitment is a mistake – then the corresponding need to provide a 'double retention' account will also disappear.

§4: Tye

I now want to turn to a discussion of the final Thin-PSA account that I shall discuss: Michael Tye's 'one-experience' view. Part of the reason for providing a long discussion of Broad's accounts in the previous chapter was that there are very clear parallels between Broad's early account, and Tye's account. Just like Broad, Tye maintains that temporally extended experience is to be analysed in terms of a series

of instantaneous structures whose contents overlap. Just like Broad, Tye maintains that temporally extended happenings are both temporally and sensorially present in perception at a time.

As far as I can tell, there are two crucial differences between their accounts. Firstly, Tye is a representationalist, whereas Broad is a sense-data theorist. Secondly, Tye claims to be 'dissolving' the problem of temporal experience, whereas Broad does not. In what follows, I shall argue that Tye *doesn't* succeed in dissolving the problem – and thus the only relevant difference between the two accounts is that Tye provides a representationalist 'translation' of Broad's early account.

Tye's account of temporal experience begins conventionally enough – he notes that if I perceptually experience a finger moving over a period of time, then a characterisation of my perceptual experience at a time must involve reference to some *interval* of time. He also notes that this same interval of time will be experienced 'as present':

The present is also experienced when one experiences something changing – a finger moving, say. This experience isn't just a succession of different experiences of the finger in different positions. At any given moment, it is an experience of the *movement* of the finger.¹⁷⁷

¹⁷⁷ Tye, *Consciousness and persons*, 87.

Tye thus draws our attention to the phenomenon of Temporal Time-Windows. He notes that:

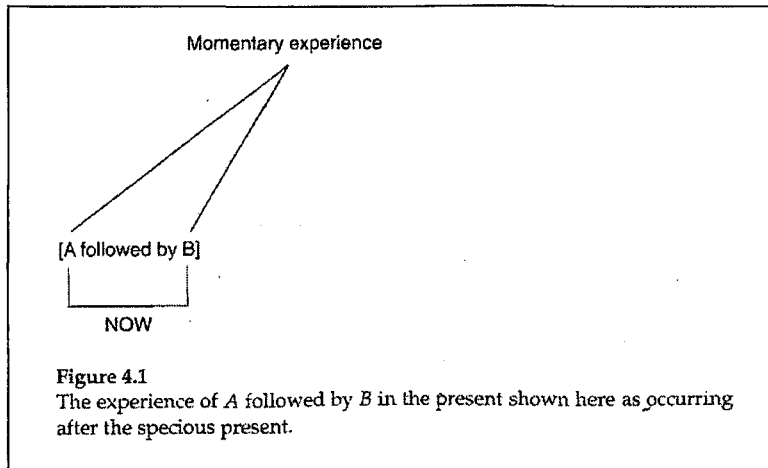
This experienced present – the so-called specious present – has a brief but finite duration. It allows us to experience an extended event, such as a continuing sound or a word, or a sequence of events, such as a group of musical notes, all in one as a whole.¹⁷⁸

The Temporal Time-Windows claim, Tye supposes, picks out that feature of experience whereby we can experience a collection of items ‘all in one as a whole’. The idea he is appealing to here is plainly that of ‘experienced togetherness’ – an idea we discussed in chapter one. Recall that the motivation behind ‘experienced togetherness’ was that there must be some difference between what is relevant to characterising experience at a time and what is not. The next natural thought is that there must be some interval in particular that is so relevant – an interval in which items are experienced *together*.

Tye is clearly assuming this kind of picture – there is some interval of time in which items are experienced ‘all in one as a whole’. As we might anticipate, he then claims that the only way to account for this ‘all in one as a whole’ aspect of experience is by positing an instant at which we are aware of all the items that fall within the relevant interval. Tye thus endorses the Thin-PSA – he endorses, at this stage in his argument,

¹⁷⁸ Ibid.

the idea that there are momentary experiences that represent intervals, as represented in his diagram, reproduced below:



Tye notes that we can be aware of items with duration greater than that ascribed to the 'Specious Present'. Like Broad and Husserl, he responds to the question of how it is that we can perceive temporally extended happenings with duration greater than that of the 'specious present' by claiming that specious presents *overlap*. Like Broad and Husserl, his account thus faces the problem of repeated contents – the problem that the same event will be represented in numerous distinct instantaneous experiences.

His response to the problem of repeated contents is the same as that which can plausibly also be made by Broad and Husserl – to note that the fact that there are different times at which something is experienced doesn't show that it will seem to the subject that they have numerous experiences of that something:

I hear a click twice in that there are two times at which an act of hearing a click occurs... But the times...have no time between them at which I experience that there is no click. Indeed, there is no time between these two times at which anything is experientially represented by hearing. So, I do not hear a click *as* occurring twice. It does not *seem* to me that there is a click followed by a second click.¹⁷⁹

As discussed earlier, in conjunction with Broad's accounts, Tye's proposal is that we remain in perceptual contact with the click, rather than representing the click as occurring again and again. Of course, as we saw in Broad's case, this kind of response immediately raises the problem of 'lingering contents' – the problem which raises the dilemma: either the account is a phenomenologically flawed account of the sensorial presence of temporally extended happenings, or the account is an account of Memorial Time-Windows.

We thus have reason to be concerned about Tye's account, as it appears vulnerable to the problem of lingering contents. In fact, Tye himself isn't entirely happy with the 'overlap' model, though for a different reason:

Even if adjacent specious presents overlap in objective time, this does not suffice to generate the experience of continuity from one present to the next.¹⁸⁰

¹⁷⁹ Ibid., 94.

¹⁸⁰ Ibid.

Tye's worry about the overlap model is that it is a necessary, but not a sufficient, condition of our experiencing the 'continuity' between specious presents. What does Tye have in mind by 'continuity' at this point? It appears that the worry Tye has is a worry about *unity*:

What is needed, in the case of experiencing the musical scale, is a further experience, over and above the experience of do-re and the experience of re-mi, an experience that *unifies* those experiences into a phenomenal whole. Generalizing, it seems that the experience of continuity or succession requires that there be an *overarching* experience that unifies successive individual experiences, each of the specious present and its contents. Viewed in this way, the problem of the unity of experiences through time is to specify the phenomenal unity relation that connects token experiences at different times and binds them together into a single large experience.¹⁸¹

Tye's concern is that, in order for the subject to have an experience of 'do-re-me', the experiences of 'do-re', and 're-me' must all be 'unified' or 'bound together' in a single experience.

We have already had a brief look at Tye's account of the continuity of consciousness in chapter two, in which we saw that Tye attempts to provide an account of continuity of what is represented by experience, rather than continuity in experience itself. We also saw that Tye's 'one-experience' proposal is what is supposed to

¹⁸¹ Ibid., 95.

provide an account of this continuity. Tye's suggestion about the case of continuity is the following:

In the earlier example of hearing the musical scale, do-re-mi, there is an experience of all three notes, with each note being experienced as *flowing into* and *being succeeded by* the next... With each experienced change in things and qualities, there is an experience of the change. But this does not necessitate that there be a new experience. The simplest hypothesis compatible with what is revealed by introspection is that, for each period of consciousness, there is only a single experience – an experience that represents everything experienced within the period of consciousness as a whole (the period, that is, between one state of unconsciousness and the next).¹⁸²

An analogy appealed to by Tye in support of this claim is the case of a long movie:

Here is a parallel. Consider a movie depicting a complex series of events taking place during an extended period of time. The movie has a very rich representational content overall. It is a movie about war; it is a movie about peace. It is a movie about the fall of the Russian Aristocracy. The movie can be boring at some times and exciting at others; for what it depicts at different times varies. Even so, there is just one movie, not many movies unified together into one encompassing movie. So too, I claim, with experience.¹⁸³

¹⁸² Ibid., 97.

¹⁸³ Ibid., 99.

There are clearly some broad similarities between temporal experience and movies – those similarities are outlined above. However, more important than these similarities are the differences – namely the distinctive phenomenological features of temporal experience that need accounting for (the Time-Windows claim, Extreme Continuity), and, in Tye’s case, a commitment to Representationalism about experience. In what follows, I shall argue that the need to account for these distinctive phenomenological features forces Tye to either a) relinquish his commitment to Representationalism or b) provide an account that looks very much like Dainton’s Representationalist interpretation of Broad.

Bayne has provided one objection to Tye’s ‘one-experience’ proposal: Bayne’s objection to Tye appeals to the conception of experience defended by Tye. He notes that Tye conceives of experiences as PANIC states – that is, they are representations that are “poised, abstract, non-conceptual, intentional content.”¹⁸⁴ The important thing to notice here is that experiences are ‘poised’ – for something to be ‘poised’ in Tye’s sense is for it to be available for direct input into a subject’s ‘reasoning system’. When Tye claims that there is only ‘one experience’, he is claiming that the subject has one PANIC state – where all the contents of that panic state are poised for direct input into the reasoning system. Bayne’s objection is as follows:

Is it really plausible to suppose that the contents of an entire stream of consciousness – that is, the period of consciousness between one state of unconsciousness and the next – are poised for direct input into the reasoning system? I had an experience of

¹⁸⁴ T. Bayne, “Divided brains and unified phenomenology: a review essay on Michael Tye’s consciousness and persons,” *Philosophical Psychology* 18, no. 4 (2005): 498.

tasting coffee this morning, and this evening I am currently experiencing a Merlot... Are these contents conjointly poised for direct input into my reasoning system? That seems *extremely* unlikely.¹⁸⁵

I think we can go further than Bayne here: it seems possible that I could easily forget about something I experienced this morning, even if my consciousness has remained unbroken. For instance, I could forget where I put my key to the office. Intuitively, because I did see the key this morning, my seeing the key is part of today's stream of consciousness. Unfortunately for me, 'seeing the key this morning' is not poised for direct input into my reasoning system – if it *was*, then I would be able to remember where my key was. It looks, then, as though, in this case at least, there *can't* be one experience that lasts for as long as my unbroken consciousness.

How might Tye respond to this objection? Describing his 'one-experience' view in more detail, he says the following:

Experiences, on my view, are *maximal* PANIC states. For each such state, there is a momentary phenomenal character (what it is like to undergo the experience at a particular moment) and an overall phenomenal character (what it is like to undergo the experience from beginning to end). The phenomenal character of an experience at any given moment is its PANIC at that moment. The overall phenomenal character of an experience is its overall PANIC.¹⁸⁶

¹⁸⁵ Ibid.

¹⁸⁶ Tye, *Consciousness and persons*, 99.

By admitting this distinction between phenomenal character at a moment, and phenomenal character overall, Tye is able to resist Bayne's objection that the overall experience must be available for input into the subject's reasoning system at a time.

One problem facing Tye in making this move, however, concerns how we are to think of an experience's relation to its *content*. To illustrate the problem I have in mind, we can turn to a pair of analogies – the cases of two different sentences spoken aloud. The first sentence we shall consider is a conjunction (“There is an apple in the fruit bowl and there is yoghurt in the fridge”), while the second is not (“There is an apple in the fruit bowl”). If I utter either sentence, I am expressing some proposition that may be true or false. In this sense, then, both sentences I have some truth-evaluable content. One important feature of such utterances of sentences is that the utterances are temporally extended.

The temporally extended utterance of a sentence is something that is truth-evaluable, for the utterance of the sentence expresses something truth-evaluable. However, while truth-evaluability is a feature of the utterance of the whole sentence, it isn't always a feature of the utterance's temporal parts. If we examine the utterances of individual words that comprise the overall utterance of a sentence, we do not find anything truth-evaluable that corresponds to the utterances of those individual words alone.

If we examine the utterance of the first word of both sentences: "There", it is clear that this word, considered in and of itself, doesn't express something truth-evaluable. If we consider a slightly longer temporal part of the utterance: "There is" we don't find an expression of anything truth-evaluable either. In the case of the *non-conjunctive* sentence, it looks as though this is true for the whole sentence: it looks as though it is the utterance of the sentence as a whole, and not the temporal parts of the utterance in and of themselves, that expresses something truth-evaluable.

It isn't the case, then, that corresponding to each distinct temporal part of the utterance of the sentence there is a distinct truth-evaluable content – for, as we have seen, it is only the sentence *as a whole* that expresses anything truth-evaluable. Just as this is the case for the reasonably short sentence "There is an apple in the fruit bowl", we can also imagine a much longer sentence – a sentence that takes a whole day to utter – where the same considerations apply. While the day-long sentence expresses a truth-evaluable content, it may not be the case that any shorter temporal part of the day-long sentence expresses some distinct truth-evaluable content.

We can now turn to the case of the *conjunctive* sentence. The same considerations about truth-evaluability apply to the individual words of this sentence, and it is also true that the sentence as a whole expresses one truth-evaluable content. One crucial difference, however, is that it looks like the utterance of the conjunctive sentence has parts that correspond to something truth-evaluable – namely the two parts of the sentence separated by the conjunction. In the case of this sentence, not only the sentence as a whole, but also the parts of the sentence separated by the conjunction, express some truth-evaluable content.

Just as we could imagine a day-long utterance of a sentence expressing a truth evaluable content, where the utterance didn't have any shorter truth-evaluable temporal parts, we can also imagine a day-long utterance of a sentence that expresses a temporally extended content, where the utterance *does* have shorter truth evaluable temporal parts.

It is this pair of analogies that is of importance in the discussion of Tye's 'one-experience' proposal. As we have already seen, Tye's suggestion is that the 'one-experience' is something that fills the time between periods of unconsciousness, and has various different qualities at different times – just like the movie does. The problem faced by Tye's proposal is his claim that the 'one experience' is an 'experience that represents everything experienced within the period of consciousness as a whole'.

In the first case of the utterance of a sentence that lasts for a whole day – the non-conjunctive sentence – we noted that while the whole utterance represents something by expressing some truth-evaluable content, it wasn't the case that the temporal parts of the utterance *in and of themselves* express anything truth-evaluable. Even if one thought it plausible that the utterances of the individual words comprising the utterance of the whole sentence do *represent* things in and of themselves, it is clear that they do not, in and of themselves, correspond to anything truth-evaluable.

Tye's suggestion is that, in the case of the 'one experience', we can distinguish between its phenomenal character at a moment, and its *overall* phenomenal character. We can now use the analogies with the two day-long sentences to set up two alternative positions that Tye can adopt concerning the relationship between momentary and overall phenomenal character. Recall again Tye's suggestion that the one experience 'represents everything experienced within the period of consciousness as a whole'. The 'one experience' thus expresses *one content* – the content concerning everything experienced within the period of consciousness.

In the case of the day-long utterance of the non-conjunctive sentence, we noted that it *wasn't* the case that corresponding to every temporal part of the sentence was some truth-evaluable content. In the case of this sentence, just *one* content was expressed, and the content was expressed by the utterance of the sentence *as a whole*. Looking at a smaller temporal part of the sentence in and of itself didn't give us anything truth-evaluable. One option for Tye would be to claim that things are exactly the same in the case of the 'one-experience'. On this kind of view, there is the truth-evaluable content of the experience as a whole, but there wouldn't be any such thing as the truth-evaluable content expressed by some proper temporal part of the one-experience.

The problem with this view, of course, is that, according to Tye's Representationalism, if there isn't any truth-evaluable content at a time, then there isn't any phenomenal character at a time, for according to Tye, "phenomenal character is one and the same as representational content that meets certain further

conditions."¹⁸⁷ Of course, given that there clearly *is* phenomenal character at a time, the only option for Tye, if he was to say that there is just one content borne by the one-experience, would be to abandon the representationalist proposal that truth-evaluable content determines phenomenal character.

The alternative option for Tye is to *deny* that the case of the 'one experience' is analogous to the case of the day-long utterance of the *non-conjunctive* sentence, and claim that, corresponding to each temporal part of the 'one experience' is some truth-evaluable content. This position would be analogous to the case of the *conjunctive* sentence: though the claim about experience made by Tye is not that corresponding to *some* temporal parts of the experience is some temporally extended content (as we saw in the case of the utterance). Rather, the claim is that corresponding to *any* temporal part of the experience there is some truth evaluable content.

However, if this is the case, then it looks as though we have lost sight of the thought that there is only '*one* experience'. Rather, on this proposal, there is some distinct truth-evaluable content at every stage – with this truth-evaluable content borne by a different 'representation'. The idea that there is only *one* experience only has any weight to it if there is only one truth-evaluable content-bearing thing – not a series of different things.

¹⁸⁷ Ibid., 166.

I now want to suggest that Tye's view, if he wants to retain his Representationalism, can be read as similar to Broad's early account, with the only relevant difference consisting in Broad's commitment to Sense-Data Theory rather than Representationalism. The phenomenal character of experience at a time, Tye suggests, is the content of experience at that time. It looks as though the momentary phenomenal character will be characterised in terms of a Time-Window:

In taking this view [the one-experience view], I am not denying that, in the example of my hearing the musical scale, do-re-mi, there is an experience of do-re in the first specious present and an experience of re-mi in the second. My point is that these are not different experiences: there is only one experience – an experience of do-re-mi – that has been described in different (partial) ways, an experience with different stages to it.¹⁸⁸

We can compare this to the following from Broad:

If we imagine a continuous series of momentary acts... we can regard them as momentary sections of an act or process of finite duration.¹⁸⁹

Why describe Tye's account as a representationalist version of Broad's early account?

Well, just like Broad, Tye takes experiences to be temporally extended, and just like

¹⁸⁸ Ibid., 99-100.

¹⁸⁹ Broad, *Scientific Thought*, 349-50.

Broad, he claims that we need to account for the Time-Windows claim in terms of some instantaneous representation of an interval. Also like Broad (in his early incarnation), Tye claims that everything experienced 'together' in the Specious Present is experienced 'as present', without providing an account of what it is for something to be experienced 'as present'.

Other than their differences as regards how we ought to think about perceptual experience (in terms of Representationalism, or Sense-Data Theory), the differences between the two accounts are not *disagreements* over issues – just the absence of *commitment* to a certain account of an issue. While Tye claims that there is only 'one-experience' per unbroken period of consciousness, Broad makes no such commitment over the issue of how we are to individuate experiences. While Broad claims that the temporally extended experiences are strictly continuous, Tye doesn't appear to make any such commitment over the issue of how different Specious Presents are temporally situated relative to one another.

It is for this reason that I propose that we ought to think of Tye's theory as a representationalist rehashing of Broad's early account. This interpretation of Tye means that his account faces the same problems as Broad's. As noted above, Tye proposes that specious presents *overlap*. He is thus vulnerable to the 'lingering contents' objection that has been applied to Broad and Husserl's accounts, as on his view, we perceive short-temporal happenings for longer than those happenings last. His account thus fails to adequately treat the phenomenology.

Attempting to reinterpret Tye's account as an account of Miller's third feature (awareness of our changing temporal perspective on events) looks as though it will run into the same problem that faced trying to interpret Broad in this way: namely, that Tye commits to the idea that, at an instant, we are aware of temporally extended happenings *as present* – rather than 'fading into the past', as looks to be required by an account of how short-term-memory relates us to recently perceived events. Things are thus not promising for Tye's account, so reinterpreted.

§5. Conclusion

I hope to have shown that all of the Thin-PSA accounts discussed in this chapter face difficulties. Husserl and Tye both face the same set of objections posed to Broad in the previous chapter, with neither of their accounts looking as though they muster any additional resources that would enable them to respond any better than Broad did. The accounts found in Le Poidevin and Zahavi's Husserl both commit to the idea that only a 'snapshot' is sensorially present. These accounts thus also fail to adequately treat the phenomenology. One way to think about the objections raised to the Thin-PSA accounts discussed in this chapter is that they either commit to *too much* being sensorially present in perception by falling victim to the 'lingering contents' objection (Husserl and Tye), or they commit to *too little* being sensorially present in perception (Le Poidevin and Zahavi's Husserl), by claiming that only a 'snapshot' is sensorially present.

All of the Thin-PSA accounts I have examined have thus turned out to be problematic. In chapter seven I shall provide an account of temporal experience that undermines the motivation for accepting Thin-PSA in the first place, thus allowing us to provide an account that avoids the objections discussed in the last two chapters. While the Thin-PSA accounts have turned out to be undesirable, I hope to have shown that Husserl's account looks like a suitable account of Memorial Time-Windows – something that plays a crucial role in our experiential relationship to time.

Even though Thin-PSA accounts look as though they provide ultimately unsatisfactory pictures of temporal experience, it isn't enough for us to simply abandon Thin-PSA. As I shall show in the next chapter, the accounts of both Dainton and Foster – theorists who reject Thin-PSA – ultimately prove no more satisfactory. This problem – that we appear to be in trouble if we accept *or* if we reject Thin-PSA – provides the motivation for the positive account that I propose in chapter seven: an account that examines what it is that is driving acceptance of the Thin-PSA in the first place.

Chapter Six: Accounts That Reject Thin-PSA: Dainton and Foster

§1. Introduction

In this chapter, I discuss two accounts that reject Thin-PSA – the accounts of Foster and Dainton. Without being able to appeal to Thin-PSA, these accounts are forced to introduce a *sui generis* feature of experience – a feature they call ‘co-consciousness’ – to account for ‘experienced togetherness’. I appealed earlier on (in chapter three) to Foster’s claim that:

Duration and change *seem* to be presented to us with the same phenomenal immediacy as homogeneity and variation of colour through space... When I listen to a tune, the duration and succession of notes seem to be as much an auditory datum – part of the content of my auditory experience – as their pitch and loudness.¹⁹⁰

I suggested that the sense of ‘immediacy’ in this passage is to be thought of in terms of Sensorial Presence. Accordingly, in what follows, I take both Foster and Dainton to be attempting to account for the Sensorial Presence of temporally extended happenings in experience. When Foster and Dainton talk about the ‘Specious Present’ or ‘experienced togetherness’, I thus take them to have in mind Sensorial Time-Windows.

One final thing to note about both Foster and Dainton is that, at first glance, neither of them appear to attempt to provide an account of ‘Temporal Presence’ – the way

¹⁹⁰ Foster, *The case for idealism*, 255.

that items are experienced as 'happening now' or 'as present'. However, both advocate the Metaphysical PPC – the claim that I shall suggest in the next chapter, enables us to account for Temporal Presence in a way that avoids the problems faced by Specious Present Theory and Memory Theory. Perhaps, then, Dainton and Foster have a similar project in mind – though such a project is certainly not made explicit in either of their accounts.

§2: Setting up Dainton and Foster's Accounts

Dainton and Foster don't attempt to provide an account of the Memorial Presence of temporally extended happenings. Dainton suggests that an account constructed along the lines of his or Foster's is best thought of as an account of the 'elementary' aspects of temporal experience – these 'elementary aspects' I am reading as the *Sensorial Presence* of temporally extended happenings.¹⁹¹

Dainton sets out his account of temporal experience as a development of Foster's account. Accordingly, the initial phases of their accounts are very similar. Both begin by admitting a distinction between the time in which an act of awareness occurs, and the time the object of awareness is experienced as occurring *in*.

While admitting this distinction in principle, Dainton and Foster go on to claim that the two distinguished elements turn out to be *concurrent* – they claim that, in order to

¹⁹¹ Dainton, "Time in Experience," 41.

account for the phenomenology of temporal experience, we must adhere to Metaphysical PPC. The example used to illustrate this is that of hearing a C major scale played with no pauses between the successive notes. As we listen to the scale we will...

...Undergo a series of total auditory experiences, the first presenting the pattern 2 units of silence before 1 unit of C, the second the pattern 1 unit of silence before 1 unit of C before 1 unit of D, the third the pattern 1 unit of C before 1 unit of D before 1 unit of E...and so on.¹⁹²

Foster's talk of 'total' auditory experiences in this passage is clarified as follows:

When I speak here of a 'total' auditory experience, I mean one which is not part of a larger auditory experience. A total *auditory* experience need not, of course, be a total experience *simpliciter* (one which is not a part of *any* larger experience), though, for convenience of exposition, I shall assume that what feature in my example *are* total auditory experiences in this stronger sense.¹⁹³

So, we have the notion of a 'total' experience being explained in terms of the relationship of *parthood*. I take it that what Foster is attempting to capture in both of these passages is the Sensorial Time-Windows claim.

¹⁹² J. Foster, *The immaterial self* (Routledge, 1991), 248.

¹⁹³ *Ibid.*

So, in Foster's example, we have a series of overlapping Sensorial Time-Windows: where, at this stage in Foster's account, the overlap is to be thought of as an overlap of the *contents* of experiences, without any commitment to the notion that the experiences themselves overlap. Foster also notes that his account involves the additional simplification that "the succession of experiences will exactly keep pace with the succession of notes in this way" and that "it may be that the whole series of experiences is literally continuous (or at least dense) and that the qualitative change in their phenomenal time-patterns is likewise continuous (or dense)."¹⁹⁴

Foster suggests that an account that posits a series of overlapping total experiences will face the 'repeated contents' objection:

This overlap...seems to imply that, while each total pattern is heard only once, its parts are heard more than once...consider the qualitative item *1 unit of C*. This item features...in each of the patterns presented by the first three total experiences. So it seems that I have to hear this C-period three times...But of course, this is just not the case.¹⁹⁵

That this objection may not be as troubling as Foster gives credit has been discussed in chapter four. However, just as in the previous chapters, the problem of *lingering contents* cannot be avoided by such an account, so we ought to agree that some

¹⁹⁴ Ibid.

¹⁹⁵ Ibid.

move needs to be made to attempt to avoid at least this second problem. Foster's response to this problem is to suggest that not just the contents of experiences, but the experiences *themselves* must overlap:

Thus let us call the first three total experiences *E1*, *E2*, and *E3*, and let us call the three patterns they respectively present *P1* (2 units of silence before 1 unit of *C*), *P2* (1 unit of silence before 1 unit of *C* before 1 unit of *D*), and *P3* (1 unit of *C* before 1 unit of *D* before 1 unit of *E*). Then we should say: that *E1* and *E2* contain, as a common component, an experience of that smaller pattern (1 unit of silence before 1 unit of *C*) which is the common component of *P1* and *P2*.¹⁹⁶

Foster's suggestion is to claim that different 'total experiences' can share common parts. This move enables him to resist the charge that, if something is experienced in two different Sensorial Time-Windows (or 'total experiences') it will be experienced *twice*:

There is only one hearing of 1 unit of silence before 1 unit of *C*, though it is a component of three total hearings.¹⁹⁷

Foster's account is intended as a response to the *repeated* contents objection, though the real difficulty that it needs to deal with is the *lingering* contents objection. Accordingly, what we really ought to be concerned with is whether Foster's account

¹⁹⁶ Ibid., 249.

¹⁹⁷ Ibid.

ends up being able to deal with the *lingering* contents objection (this point is raised by Gallagher, in connection with Dainton's account, as I shall show later).

Before discussing Gallagher's remarks, it is worth noting that in order for Foster's suggestion about 'sharing common parts' to work, it is necessary that experiences themselves be temporally extended – it is necessary that experiences have temporal parts that can be shared. It is here that the Metaphysical PPC is put to work – experiences are temporally extended, and the period of time in which the content of that experience is represented as occurring is numerically identical with the period occupied by the experience:

We have to take each experience to extend over a period of real time in a way which exactly matches the phenomenal period it presents.¹⁹⁸

Once we have arrived at this claim – that we should think of experiences as temporally extended, and as concurrent with their contents – the question of how to account for the Sensorial Time-Window re-emerges. Why don't we, on Foster and Dainton's accounts, just have one long temporally extended experience in which *everything* is experienced together?

When we experience the C-major scale mentioned earlier, we experience the scale for the same period of time as the period that the scale is experienced as occurring in.

¹⁹⁸ Ibid.

How, then, are we to 'carve up' this long temporally extended period of experience into a series of Sensorial Time-Windows? It is at this point that Foster and Dainton both appeal to the notion of co-consciousness.

By allowing total experiences to be extended in real time, we are allowing the relation of strict co-consciousness (the relation which holds between experiences which are parts of a single experience) to relate experiences which occur at different times. Thus *E1* will contain three successive and non-overlapping experiences – a presentation of *1 unit of silence* followed by another presentation *1 unit of silence* followed by a presentation of *1 unit of C* – and these successive experiences, being parts of *E1*, will qualify as strictly co-conscious.¹⁹⁹

So, Foster suggests that we should think of the experience of the scale as consisting of a series of experiences of each individual note, where successive experiences in the series are related by 'co-consciousness' to form 'total experiences'. These 'total experiences', in which all of the elements of the 'total experience' are 'co-conscious', are what account for Sensorial Time-Windows. Foster also notes that this relationship of 'co-consciousness', while transitive *within* Sensorial Time-Windows, is not transitive between experiences with a temporal distance between them *greater* than that of Sensorial Time-Windows.

¹⁹⁹ Ibid., 249-50.

Dainton is particularly keen to emphasise the failure of transitivity of co-consciousness between experiences separated by duration greater than that of Sensorial Time-Windows:

Do-Re is a temporally extended total experience, the parts of which are all mutually coconscious; since the same applies to *Re-Mi*, both of these extended totals are maximally connected phenomenal wholes...If ...[transitivity]... were to apply in the diachronic case, then every part of *Do-Re* would be co-conscious with every part of *Re-Mi* since these two phenomenal wholes overlap. However, by hypothesis *Do* is not co-conscious with *Mi*.²⁰⁰

The claim that co-consciousness is not transitive in the diachronic case is the first thing that ought to make us concerned about accounts involving 'co-consciousness'. The reason for concern is Dainton's insistence that in the synchronic case, it *is* transitive, as well as his claim that:

When simultaneous experiences are co-conscious, what is the nature of this relationship, what can be said about it from a purely experiential perspective? My answer to the latter question will be: nothing.²⁰¹

On Dainton's conception of co-consciousness, we cannot analyse it in terms of anything that features in experience: in this sense, co-consciousness is a primitive

²⁰⁰ Dainton, *Stream of Consciousness*, 168.

²⁰¹ *Ibid.*, 25.

experiential relation. However, this doesn't stop Dainton from describing the logical properties of the relation. Dainton asserts that co-consciousness is transitive in the synchronic case, but not transitive in the diachronic case. There are two questions that we can ask about this: the first is 'What reason do we have for thinking that it is the same relation in both cases?'; the second is 'How are we to individuate experientially primitive relations?'

Surely one constituent of an account of how to individuate relations will be an appeal to their logical properties. If we have one relation that is transitive (synchronic co-consciousness), and one that is not (diachronic co-consciousness), then, on this proposal, we just have two different relations. This objection is extremely important for Dainton's overall account of the unity of consciousness, given that his stated aim is to show that:

The same basic relationship of co-consciousness is responsible for the unity of consciousness both at and over time.²⁰²

In answer to the other question raised above ('What reason do we have for thinking that it is the same relation in both cases?'), Dainton says the following:

²⁰² Ibid., 27.

If we want to say that synchronic and diachronic co-consciousness are two manifestations of the same relationship, and there is every reason to suppose this is the case, then clearly co-consciousness is not, by its very nature, transitive.²⁰³

I am not sure what the reasons Dainton has in mind here are. One of them may be his appeal to the idea that the contents of Sensorial Time-Windows are sensed 'together' in the same way as the contents of consciousness at a time. I shall discuss this claim shortly, in connection with the 'lingering contents' objection.

§3: Similarities and Differences Between Dainton and Foster

Dainton is in agreement with Foster about the way in which an account of temporal experience is to be developed on all the above points. They agree with the following claims about temporal experience:

- a) Thin-PSA should be rejected in favour of the Metaphysical PPC.

- b) The difference between experiences that occur in the same 'Sensorial Time-Window' and experiences that do not is to be explained in terms of the relation of 'co-consciousness'.

²⁰³ Ibid., 168.

- c) 'Co-consciousness' is transitive within Sensorial Time-Windows.
- d) 'Co-consciousness' is nontransitive over intervals greater than that of a Sensorial Time-Window.

However, there are also some differences between the two accounts. The first difference we can note concerns the notion of 'co-consciousness'. Foster offers the following definition of co-consciousness:

Simultaneous experiences qualify as co-personal if and only if they are components of a single complex experience – elements of a single episode of consciousness and accessible to the same introspective awareness. Let us speak of experiences which are rendered co-personal in this way as 'strictly co-conscious'.²⁰⁴

We can distinguish various claims being made about co-consciousness by Foster in this passage – there is a claim that co-conscious experiences are 'experiences that are components of a single complex experience.'

There is also a claim that co-conscious experiences are 'experiences that are experienced 'together' (as 'elements of a single episode of consciousness') and that are accessible to the same introspective awareness'. In this interpretation, I am

²⁰⁴ Foster, *The immaterial self*, 245-6.

assuming that Foster's talk about 'single episodes' of consciousness is a way of attempting to describe what I have called 'experienced togetherness'.

It looks as though Dainton and Foster will agree about the *first* claim about co-consciousness – Dainton frequently talks of experiences as being 'composed' of other experiences ("all the *component* parts of a single experience...are co-conscious with each other."²⁰⁵). However, it isn't obvious that Dainton will agree with the second claim, for Dainton takes co-consciousness to be an *unanalysable* relation between experiences that captures our talk of experienced 'togetherness', whereas Foster can be read as claiming that co-consciousness is to be analysed in terms of introspection (Foster claims that co-conscious experiences are 'accessible to the same introspective awareness').

How exactly are we to interpret Foster's claim about introspection? Foster could either be making what Dainton calls the 'strong I-thesis' claim, or the 'weak I-thesis' claim.

Strong I-Thesis: "Co-consciousness is constituted by introspectibility... A group of token experiences are co-conscious if and only if they are either the actual or potential objects of a single introspective awareness."²⁰⁶

²⁰⁵ Dainton, *Stream of Consciousness*, 88.

²⁰⁶ *Ibid.*, 35.

Weak I-Thesis: "Co-consciousness is not constituted by introspectibility, but the two are correlated: if a group of experiences are co-conscious they are all actual or potential objects of a single introspective awareness."²⁰⁷

So, Foster is either taking the notion of 'co-consciousness' as something susceptible to analysis – in particular, to analysis in terms of *introspection* – or he is leaving the notion as something unanalysable. If Foster opts for the first suggestion, then his conception of co-consciousness is in conflict with Dainton's, if he opts for the second, then his conception may not be (Dainton claims that, for a certain kind of introspection – 'passive' introspection – "the weak I-thesis may well be largely true – for beings whose minds are like ours."²⁰⁸).

If Foster is interpreted as committing to the strong I-thesis, then his account faces the charge of getting the order of explanation the wrong way round – a point noted by both Dainton and Tye.²⁰⁹ The feature of experience that Dainton and Foster are both trying to account for are Sensorial Time-Windows – the fact that in order to characterise the subject's experience at a time, we need to appeal to some interval less than or equal to the duration for which the subject has been experiencing.

The intuitive line of thought that objects to the strong I-thesis claims that introspection is best thought of as *revealing* features of experience, rather than as

²⁰⁷ Ibid.

²⁰⁸ Ibid., 39.

²⁰⁹ See: Dainton, *Stream of Consciousness*, 37; Tye, *Consciousness and persons*, 19-20.

constituting them. In this case, the objection is the thought that Sensorial Time-Windows are features of experience revealed by introspection – a feature of experience that exists independently of its being introspectible. In light of this objection, I want to suggest that Foster is most charitably interpreted as committing to the weak I-thesis – the thesis not in conflict with Dainton’s view.

Another difference between Foster and Dainton concerns the involvement of ‘acts’ of experience. Foster retains the idea that we should think of experiences as involving two components: *awareness* and *content*, thus adhering to Miller’s original formulation of the PPC:

The time interval occupied by a content which is before the mind is the very same time interval which is occupied by the act of presenting that very content before the mind.²¹⁰

Dainton, however, suggests that it is a mistake to think that experience has such an ‘act-object’ structure:

Since, according to the overlap theory, acts are themselves temporally extended and exactly coincide with their contents in temporal extent, nothing would be lost by, as it

²¹⁰ Miller, *Husserl, perception, and temporal awareness*, 107.

were, allowing the acts to sink into their contents, integrating awareness with content in accord with the Simple Conception of experience.²¹¹

Dainton's reason for abandoning this distinction appears to be that it no longer adds anything to an account of temporal experience once we have resolved to account for Sensorial Time-Windows in terms of 'co-consciousness'.

This move, of course, raises the question of what we are to make Dainton's professed adherence to the PPC in this context: Gallagher has noted just this point²¹². In response to this worry, Dainton has suggested that we think of the PPC in a way akin to how I have formulated it in previous chapters: compare Dainton's "Our consciousness of temporally extended contents runs concurrently with the contents", with my "The duration of experience *in* which X is represented is concurrent with the duration that X is represented as occupying."²¹³

The worry about how to understand the PPC might not be troubling for Dainton, but we might wonder exactly what he has in mind when he suggests we ought not draw an act-content distinction. Here are some remarks Dainton makes about this position:

²¹¹ Dainton, *Stream of Consciousness*, 166.

²¹² See: S. Gallagher, "Sync-Ing in the Stream of Experience," *PSYCHE* 9 (2003): 10.

²¹³ Dainton, "Time in Experience," 32.

Consciousness is inseparable from phenomenal contents: when a given phenomenal item comes into being, it comes into being as a conscious experience...phenomenal contents become conscious simply by coming into existence.²¹⁴

According to this view, nothing needs to be added to a phenomenal content to turn it into an experience: any and all instantiations of phenomenal properties are fully-fledged conscious experiences.²¹⁵

This assertion of the equivalence of conscious experience and phenomenal content Dainton calls the 'simple conception' - I am taking it that the claim that conscious experience and phenomenal contents are *inseparable* is an assertion of their equivalence: they are one and the same.

If conscious experience and phenomenal contents are indeed one and the same, then it must be the case that the properties of a portion of conscious experience are one and the same as the properties of the relevant phenomenal contents. This thought raises a second worry about Dainton's proposal that we 'allow acts to sink into their contents' - namely that the Thin-PSA theorist's attempt to account for 'experienced togetherness' in terms of an instantaneous act isn't the *only* reason to admit the distinction between act and content.

²¹⁴ Dainton, *Stream of Consciousness*, 57.

²¹⁵ Dainton, *The Phenomenal Self*, 46.

Some evidence for interpreting Dainton as asserting the identity of the properties of conscious experience and content comes from his discussion of Broad. Dainton distinguishes between the 'Simple Conception', and the 'A-theory' – on the 'A-theory', experiences are to be thought of as consisting of an *act* of awareness, and an *object* of awareness. Dainton has the following to say about Broad's 'A-theory':

When first considering the issue of whether the A- theory is true of all experiences, Broad initially favours a compromise position... Many types of experience ("true sensations") are complexes comprising an objective factor (a "sensum"), and a subjective factor (the act of sensing), and Broad thinks visual perceptual experiences clearly fall into this camp. But there are other types of experience which do not: Broad sees no reason to suppose that bodily feelings, the denizens of the "somatic sense-field", involve an act of sensing. Nonetheless, he goes on to say that if he were obliged to treat all kinds of experience in the same way, rather than adopting the view that no experiences involve a distinction of act and object, he would opt for the doctrine that all experiences involve such a distinction, even though this is by no means always obviously the case.²¹⁶

Dainton goes on to suggest that in a later passage, 'a different view is tentatively announced'. Rather than looking at this view, I want to look at the reason Broad thinks that we ought to analyse some experiences into an act-object structure (thus advocating an A-theory), and to think of other experiences as lacking this structure.

²¹⁶ Dainton, "Time in Experience," 70.

It turns out that the reason Broad wants to claim that vision, say, has an act-object structure is that it enables us to avoid claiming that the *experience* of a red object is itself red. The reason that he wants to claim that a sensation of pain, say, *lacks* an act-object structure, is that the experience of pain is itself painful:

If we consider the various experiences called 'sensations'. We seem to be able to arrange them in an order, starting with those of sight, passing through those of taste and smell, and ending with bodily sensations, like headache[s]. Now, as regards the top members of the series, the analysis into act of sensing and object sensed seems pretty clear. A sensation of red seems clearly to mean a state of mind with a red object, and *not to mean a red state of mind.* "

If we pass to the other end of the series the opposite seems to be true. It is by no means obvious that a sensation of headache involves an act of sensing and a 'headachey' object; on the contrary, *it seems on the whole more plausible to describe the whole experience as a 'headachey' state of mind...* it seems plausible to hold that a sensation of headache is an unanalysable mental fact, within which no distinction of act and object can be found.²¹⁷

Given that the A-theory is what Dainton is committed to denying, and is also what Broad takes to allow us to avoid claiming that the properties of the content of an experience are one and the same as the properties of the experience itself, it looks as though Dainton is committed to a position whereby the properties of the content of an experience *just are* the properties of the experience itself.

²¹⁷ Broad, *Scientific Thought*, 254-255. (Italics mine).

This position will clearly raise some uncomfortable questions for Dainton – for example, ‘is experience of red *itself red?*’ Plausibly – as Broad notes – it is not. It also looks as though the position will result in Dainton having to adopt narrow conception of the possible contents of experience, on pain of having to answer even more uncomfortable questions, for example, ‘is an experience of the Eiffel Tower *itself the Eiffel Tower?*’

Perhaps there are things that Dainton can say in order to respond to these objections, but it looks as though Broad’s discussion provides us with good reason to avoid advocating the Simple Conception – and it isn’t clear that the Simple Conception adds much to Dainton’s picture of temporal experience. Dainton can claim that all that does work in accounting for Sensorial Time-Windows on his picture is ‘co-consciousness’, without needing to drop the idea of there being a distinction between conscious experience and phenomenal content *entirely*.

Perhaps, then, this second difference between Dainton and Foster also ought – like the ‘Strong I-thesis’ interpretation of Foster – to be put to one side, and their accounts considered as not differing as regards the I-thesis, or the nature of perceptual experience. However, even if we take Dainton and Foster to be providing accounts that turn out to be extremely similar, Dainton nevertheless provides much more detail about how his account is to function than Foster does. I now want to turn to a discussion of some of this detail.

As well as claiming that we ought not admit a distinction between awareness and

content, Dainton wants to make a claim about how this content is to be conceived of. His account of the content of temporal experience is given in response to the following question:

In hearing *Do-Re-Mi* we experience *Do* flowing into *Re*, and *Re* flowing into *Mi*. How is this directional flow or passage in immediate experience to be explained?²¹⁸

This feature of experience is the feature that very much impresses the Unmodified Naïve Theorist – the feature being that experience *unfolds* over time, with experience keeping us ‘up to date’ with the state of the world from snapshot to snapshot. The Unmodified Naïve theorist attempted to account for this feature of experience by suggesting that temporally extended experience consists of a series of ‘snapshots’.

Recall that, on the picture I am proposing, all forms of ‘naïve theory’ commit to the Metaphysical PPC. The distinction to be drawn between modified and unmodified naïve theory is to be drawn in terms of how each theorist characterises the subject’s experience at a time: the unmodified naïve theorist appeals only to a *snapshot*, whereas the modified naïve theorist appeals to some interval with duration *greater* than a snapshot.

We have already seen what is wrong with the Unmodified Naïve Theorist’s view.

²¹⁸ Dainton, *Stream of Consciousness*, 175.

Dainton's clearly rejects the idea that we ought to account for 'unfolding' in terms of a series of snapshots:

According to the overlap theory, most contents of immediate experience are not momentary, they possess some short duration, and consequently these contents possess an intrinsic temporal organization; the contents consist of a temporal pattern.²¹⁹

So, rather than appealing to 'snapshots', Dainton appeals to the content of experience involving 'temporal patterns':

What is the character of these temporal patterns – is it static or dynamic? The answer is clear: it is dynamic, the flow or passage in experience is included in the phenomenal content of experience. The total experience that results from my seeing a ball move between P1 and P2 does not consist of stationary image[s] of the ball at two different places... Movement or animation is, as it were, built into the content from the start.²²⁰

I shall return to the issue of what distinguishes Dainton and Foster's accounts from an Unmodified Naïve Theory shortly. It turns out, I shall suggest, that the distinction consists only in Dainton and Foster's introduction of 'co-consciousness'. To show this, we can consider Dainton and Foster's account of the continuity of consciousness: the claim that experiences *overlap by sharing common parts*.

²¹⁹ Ibid., 175-6.

²²⁰ Ibid., 176.

§4: Co-Consciousness and Continuity

One thing Dainton and Foster's discussions of continuity draw attention to is the weight borne by 'co-consciousness' in both accounts – weight that it looks unable to support. Their discussions draw this attention in the following way. When we looked at the example of hearing the C-major scale, Foster and Dainton made the 'simplifying assumption' that there were only three total experiences involved: one of Silence-Silence-C; then one of Silence-C-D; then one of C-D-E.

However, both Foster and Dainton suggest that there are many more than three total experiences involved the C-major scale situation. From moment to moment, the subject experiences more and more of the events unfolding around him, and each new temporal part of those events that features in experience is experienced 'together' with a limited interval of what came before.

How ought we to think of these new temporal parts of experience that represent new temporal parts of events? In particular, what are their temporal dimensions – are they temporally extended or instantaneous? It looks as though they will certainly be *snapshots* – the smallest possible temporal unit into which experience is divisible. Foster and Dainton both suggest that consciousness might be *dense* (or possibly even *strictly continuous*):

It may be that the whole series of experiences is literally continuous (or at least dense) and that the qualitative change in their phenomenal time-patterns is likewise continuous (or dense).²²¹

Between E1 and E2 there would be many other total experiences, for example those occurring at intervals of one half or one quarter units. These will have their own particular contents, for example the experience occurring half a unit after E1 will have as its content [*one and a half units of Do followed by one unit of Re followed by half a unit of silence*]...[this]...raise[s] the question of just how many total experiences occur between any two total experiences which overlap. If total experiences occur in dense successions...²²²

In which case, as Dainton points out, the snapshots will be *instantaneous*:

If total experiences were densely ordered... the single tone *Do* would comprise an infinite number of distinct phenomenal tone-phases (likewise, of course, for *Re* and *Mi*).²²³

Dainton rejects this idea – arguing instead that such ‘snapshots’ are best thought of as the ‘adirectional Time-Windows’ mentioned back in chapter one. He notes that there is something uncomfortable about the claim that we ought to think of our

²²¹ Foster, *The immaterial self*, 248.

²²² Dainton, *Stream of Consciousness*, 169.

²²³ *Ibid.*, 170.

experience of the tone as involving experience of an infinite number of phases of that tone:

Can we really distinguish, in introspection, an infinite number of distinct phases of a single short tone, or a perceived movement? Is there any introspective evidence that we can distinguish even a hundred? Physicists currently believe that intervals of time below the Planck duration of 10^{-43} seconds have no physical significance – is it likely that such intervals have any phenomenological significance?²²⁴

Dainton's alternative proposal is that 'snapshots' ought to be conceived of as 'adirectional Time-Windows.' The 'adirectional Time-Windows' model of snapshots that Dainton introduces appeals to a number of psychological experiments that have been discussed by Ruhnau.

In *Time, Gestalt, and the Observer*, Ruhnau discusses a number of psychological experiments concerning our perception of time. On the basis of these experiments, Ruhnau concludes various things about the nature of experience. The first experiments discussed concern the 'coincidence threshold'. In these experiments, two 'distinct stimuli' are presented to the subject with different temporal intervals between their occurrences.²²⁵ It then emerges that below a certain temporal interval,

²²⁴ Ibid.

²²⁵ It isn't clear whether these distinct stimuli are qualitatively identical and temporally separated, or qualitatively distinct and temporally separated. Cf P67 Ruhnau

“only one atomic event is observed.”²²⁶ The temporal interval below which ‘only one atomic event is observed’ is called the ‘coincidence threshold’, and it turns out that the coincidence threshold for acoustic stimuli is 2-3m/s, for tactile stimuli is 10m/s, and for visual stimuli is 20m/s.

The second set of experiments discussed concern the ‘order threshold’: in order for the subject of experience presented with the stimuli to be capable of determining the order in which the stimuli occurred, the temporal distance between the stimuli must exceed 30m/s. This temporal distance is the same for all modalities. This result – with the ‘order threshold’ the same across all modalities – leads Ruhnau to posit the existence of a ‘central processing mechanism’ involved in our perception of time. This posit, in turn, leads Ruhnau to suggest that:

The brain creates and is structured by *adirectional temporal zones* or zones of co-temporality. With respect to external time such ‘Time-Windows’ appear as ‘time quanta’. Their duration (of about 30m/s) characterises the functional level of the operating system.²²⁷

I think that Ruhnau’s idea here is that, within these ‘temporal zones’, we are not capable of discerning the order in which distinct stimuli occur – they are of duration *less than* the ‘order threshold’ – hence they are *adirectional*.

²²⁶ Ruhnau, “Time-gestalt and the observer,” 67.

²²⁷ *Ibid.*, 168.

Dainton suggests that these 30msec 'windows' provide us with a more satisfactory account of what 'snapshots' are:

These results suggest...the shortest distinguishable successions in experience (for all modalities) are of the order of 30msec...[and] that the maximum span of immediate experience will be somewhere between 2-30msec (depending on the type of phenomenal content) and three seconds. If we assume that a total experience is a phenomenal *succession*, then given that the order threshold is around 30msec, we would expect successive total experiences with discernibly different contents to be separated by this sort of interval.²²⁸

One thing to quickly note about this passage is that the first thing mentioned above, that Dainton suggests that the results show, is not quite right. It is not that 'the shortest distinguishable successions in experience are of the order of 30msec', but rather that 'the shortest distinguishable successions "in which we can decide which atomic event is the first and which is the second"²²⁹ in experience are of the order of 30msec.' Below 30msec (but above the coincidence threshold) we can discern succession between atomic events: it is just that we cannot determine which atomic event occurred first.

Regardless of this complication, Dainton is suggesting that 30msec is the relevant duration of a 'snapshot'. There is clearly some similarity between the accounts of

²²⁸ Dainton, *Stream of Consciousness*, 170-171.

²²⁹ Ruhbau, "Time-gestalt and the observer," 167.

Dainton and Foster, and the unmodified naïve theory. All three accounts commit to 'snapshots' playing a crucial role in characterising the way that experience *unfolds* over time. We now need to ask what it is that *distinguishes* the accounts of Dainton and Foster from the unmodified naïve theory.

The crucial difference between the unmodified naïve theorist's position, and those of Dainton and Foster, is that Dainton and Foster have the additional ingredient of 'co-consciousness' playing a role in their account. It is 'co-consciousness' that explains why it is that, at a time, the subject experiences more than just a 'snapshot' (be the snapshot instantaneous (as on Foster's view), or an adirectional Time-Window (as on Dainton's view)). Everything that falls within a particular temporal interval is 'co-conscious', and hence experienced *together*.

When specifying what does, and what does not, fall within a given Time-Window, Dainton and Foster appeal to the notion that temporally extended experience consists of a series of 'snapshots' - be they Foster's instantaneous snapshots, or Dainton's 'adirectional temporal zones'. By adopting this position, Dainton and Foster are advocating something very similar to the unmodified naïve theorist's position. Dainton, Foster, and the unmodified naïve theorist all advocate the Metaphysical PPC and they all claim that experience is to be conceived of as a series of 'snapshots'. The difference between Dainton and Foster and the unmodified naïve theorist thus appears to consist entirely in their addition of 'co-consciousness' to the picture.

The role of co-consciousness, then, is to bear the weight of distinguishing between Dainton and Foster's versions of the *modified* naïve theory, and the *unmodified* naïve theory. I now want to suggest that 'co-consciousness' is, in fact, incapable of bearing this weight – that we have no reason to think that 'co-consciousness' is not just a label for the *problem* of distinguishing between these two different types of theories – the modified, and the unmodified, naïve theory.

The first problem to note about co-consciousness has already been mentioned: *prima facie*, the 'lingering contents' objection appears to have lingered on, despite the abandoning of PSA. Gallagher has levelled this charge at Dainton – his objection runs as follows:²³⁰ let us consider the example of the C-major scale again. On Dainton and Foster's views, we have a series of total experiences, each of sufficient duration to take in three notes.

We can alter Dainton and Foster's example slightly, and imagine that the experiencing subject starts experiencing just as the initial C is played. So, on their simplified picture, we have a total experience E1 (C), total experience E2 (C – D), and a total experience E3 (C-D-E). 'Total experiences' are experiences in which things are sensed 'together' – experiences in which things are 'unified'.

On this picture, Gallagher's objection runs, the tone C is sensed for a period three times its duration: it is sensed for the period that it takes for the notes C, D, and E to

²³⁰ See: Gallagher, "Sync-Ing in the Stream of Experience," 13.

be played. This is the very same problem of 'lingering contents' that faced views in the previous chapter: namely that the view gives us a phenomenologically unrealistic result.

Dainton's response to this objection is to suggest that it rests upon a misunderstanding of his view. The objection, he suggests, illicitly conceives of 'co-consciousness' as involving Thin-PSA:

Gallagher...supposes that each momentary phase of [an] extended act apprehends a two second long stretch of content... The problem of ongoing contents is the product of the (absurd) union of PPC with [Thin-] PSA. The overlap model, at least as I intended it to be understood, involves embracing PPC but rejecting Thin-PSA.²³¹

As Dainton notes, however, even if Gallagher's objection illicitly involves conceiving of co-consciousness in terms of Thin-PSA, part of what is going on in Gallagher's objection is a question about exactly what co-consciousness is.

Dainton's idea is that 'co-consciousness' is *all* that needs to be appealed to when we attempt to explain what 'experienced togetherness' is. It is this thought that motivates the rejection of the distinction between 'awareness' and 'content' mentioned earlier:

²³¹ Dainton, "Time in Experience," 20.

It is clear that the posited acts of awareness are doing no work whatsoever in explaining *temporal* awareness. Specifically, we no longer need to posit acts whose contents last longer than the acts themselves, contents which are apprehended together at a single moment in time.²³²

Unlike the Thin-PSA theorist, Dainton doesn't attempt to account for 'experienced togetherness' in terms of some instantaneous portion of experience being responsible for the representation of something temporally extended. Part of the problem that Gallagher's objection raises, then, is the issue of how we are to account for 'experienced togetherness' without the Thin-PSA model in place.

Here are some of the suggestions Dainton makes for how we are to account for Sensorial Time-Windows:

How do the contents in a single phenomenal present come to be experienced as a unified whole if they are not apprehended by a single act of awareness of the sort posited by advocates of the PSA? The answer, I suggest, is that the contents in question are related by *co-consciousness*, the same primitive inter-experiential relationship that is responsible for the unity of consciousness at a given time. Just as all the constituent parts of a spatial field of content can be directly co-conscious, so too can all the constituent parts of a *temporal* field of content.²³³

²³² Dainton, *Stream of Consciousness*, 166.

²³³ Dainton, "Time in Experience," 26.

A phenomenal present is a unified phenomenal expanse – its earlier and later parts are experienced together – and for an experience to be thus its constituents must be transitively co-conscious.²³⁴

The problem for Dainton's account of 'experienced togetherness' is that it fails to provide any illumination about the problem of temporal experience – a puzzle that arises as a result of the mystery of how we should account for Time-Windows. One thing that is presumably meant to render 'co-consciousness' a more substantive notion is the claim that 'co-consciousness' features in both the synchronic, and the diachronic cases. However, as we have seen, it can't be the same relation featuring in both cases, as one relation is transitive, and the other is not.

§5. Conclusion

We thus have reason for deeming Dainton's account unsatisfactory – namely the charge that his account fails to provide a substantive account of Sensorial Time-Windows – the datum crucial to the problem of temporal experience. The same accusation can be directed at Foster's account – we have no reason to think of 'co-consciousness' as providing a substantive account of temporal experience, as opposed to merely labelling the problem.

²³⁴ Ibid., 27.

Dainton and Foster's Modified Naïve Theories, then, while they manage to avoid the 'lingering contents' objection, and the charge that their accounts are better thought of as accounts of Memorial Time-Windows rather than Sensorial Time-Windows, ultimately prove unsatisfactory. While their accounts have the strength of adhering to the Metaphysical PPC, they have the weakness of appealing to co-consciousness. In the next chapter I shall turn to the project of providing an alternative version of the Modified Naïve Theory: an account that commits to the metaphysical PPC, but rejects the idea that the subject's experience at a time is to be characterised in terms of a 'snapshot'.

Chapter Seven: A Positive Account of Diachronic Unity

§1. Introduction

In this chapter I attempt to develop a version of Modified Naïve Theory that avoids the problem facing both Dainton and Foster – the problem being that their appeal to ‘co-consciousness’ looks too much like a label for, rather than a solution to, the problem of temporal experience. I also want to provide an account of what motivates the Thin-PSA theorist, and to accommodate that motivation within an account that commits only to the Fat-PSA. To do this, I shall distinguish between a number of different metaphysical categories that describe the different ways in which items can fill time. These categories are: *Event*; *Process*; *State*; and *Achievement*.

I shall argue that we can identify a particular kind of metaphysical category: the category of ‘occurrent state’, and suggest that failure to identify this category can lead to adoption of Thin-PSA and ‘co-consciousness’. I claim that once the motivation for these views has been undermined, we ought to adopt a Modified Naïve Theory, because this type of view allows us to avoid making revisionary claims about the phenomenology. I also suggest that we ought to retain the Husserlian account discussed in chapter five as a supplement to the Fat-PSA account of Sensorial Time-Windows I shall provide, because it can provide us with an account of *Memorial Time-Windows*.

§2. Distinguishing Between Event, Process, State, and Achievement

The lines of thought and pieces of evidence that drive the quadripartite distinction between *Event*, *Process*, *State* and *Achievement* have been put to different uses. One use they have been put to is in distinguishing between various *linguistic* categories – so on this kind of project, *Event*, *Process*, *State*, and *Achievement* are categories into which different kinds of *expression* fall. Put to a different purpose, they are used in distinguishing between different *metaphysical* categories.

These two different uses of the data that drive the quadripartite distinction are not incompatible, but the usage that is important for our purposes here is the *metaphysical* one. In what follows, I shall focus on developing a picture of the differences between Events, States, Processes, and Achievements, conceived of as metaphysical categories.

According to the metaphysical picture I want to outline, Events are *composed* of Processes, and *bounded* by Achievements. While there is an intimate link between Events, Processes, and Achievements, there is also another way that items can fill time: they can be *States*. One suggestion for what distinguishes States from Events and Processes is that States do not possess ‘temporal parts’ – I shall say more about this suggestion shortly.

Here are some examples of these four different types of time-filler. These examples are supplied by Mourelatos, and are taken from his paper *Events, Processes, and States*:²³⁵

Processes: run (around, all over), walk, swim (along, past), push (a cart).

Events: run-a-mile, paint-a-picture, grow up, recover from illness.

Achievements: recognise, find, win (the race), start/stop/resume, be born/die.

States: desire, want, love, hate, dominate.

What is it that determines whether an item belongs in one of these four categories? The easiest category to talk about here is the category of *achievements*. On the model I am proposing, achievements mark the boundaries of states, events and processes – they mark startings and stoppings, beginnings and endings. The idea of ‘achievements’ is that whenever a state, process or event starts, there will be some instant that marks the first point in time at which the state, process or event had begun to occur. This instant – the instant that marks the boundary of the occurrence – is an *achievement*.

²³⁵ A. P.D Mourelatos, “Events, processes, and states,” *Linguistics and philosophy* 2, no. 3 (1978): 415.

While it is relatively easy to specify what an achievement is, it is more difficult to get clear on how we are to distinguish between events, processes and states. I want to begin by suggesting an intuitive way in which we can draw these distinctions, before providing a more precise account later on. The first intuitive distinction I want to draw is between events and processes. Events and processes can be distinguished in terms of the property of *telicity*.

Something is 'telic' or 'possesses telicity' if it is a progression towards an *endpoint* at which the something in question is *completed*." Events are telic, whereas processes are not. In the examples of events given above, it is clear that the relevant endpoints are mentioned in their descriptions (the endpoints are when a mile has been run, when a picture has been painted, and so on). Their descriptions contain reference to the point at which they are completed. Processes, however, are *atelic* – they are not progressions towards an endpoint at which they are completed.

The feature of 'telicity' will prove important in what follows when we come to examine issues of individuation, for processes, unlike events, turn out not to behave like *particulars*, as far as individuation is concerned. This is due to their lacking the telic endpoint in terms of which particular events are individuated. Processes, it will transpire, behave more like mass-countable things than particulars.

'Telicity' thus provides us with a dimension along which we can distinguish between events and processes. We now need a way of distinguishing between events and

processes, on the one hand, and states upon the other. One way that we can draw this distinction is in terms of the notion of 'unfolding'. Events and processes are things that *unfold* over time – we might want to say that they are ways of *becoming*. States, upon the other hand, do not *unfold* over time – rather, they are ways of *being*.

These two ways of drawing the relevant distinctions raise two questions: firstly, we want to know what these properties – 'telicity' and 'unfolding' are in more detail. Secondly, we want to know how we can tell if a given temporally extended happening *possesses* any of these properties. I want to propose that we can answer both of these questions by looking at Velleman and Hofweber's paper, *How To Endure*.

The pressing reason for looking at Velleman and Hofweber's paper is that it provides a discussion of the intuitions driving two different positions: *Endurantism* and *Perdurantism*. The reason for looking at this issue concerns the property of 'unfolding' that was used to draw the distinction between events and processes, on the one hand, and states, upon the other. One way of fleshing out this way of drawing the distinction is to appeal to 'temporal parts'.

§2.1: 'Temporal Parts'

The strategy of drawing the relevant distinctions in terms of 'temporal parts' has been employed by Helen Steward:

Events and processes have many features of their temporal shapes in common; both occur, both have temporal parts... *States* seem to have many temporal features in common with physical objects. They persist through time (at least usually) and have no temporal parts... states share a temporal shape with physical objects.²³⁶

However, drawing the distinction between events and processes, on the one hand, and states, on the other, in terms of their similarity to physical objects doesn't straightforwardly furnish us with a grasp of this distinction.

Firstly, we can note that it is possible to adopt a position about physical objects on which physical objects have temporal parts – the perdurantist position. Rather than making the commonsense claim that objects endure through time by being 'wholly present' at every time at which they exist – the *endurantist* position – the perdurantist claims that objects are spread out through time in the same way as events and processes.

The existence of the perdurantist vs. endurantist debate thus gives us a straightforward objection to Steward's characterisation of the event/process vs. state distinction. If we are perdurantists, the objection goes, then how are we to make sense of Steward's distinction between events and processes, on the one hand, and

²³⁶ H. Steward, *The ontology of mind: events, processes, and states* (Clarendon Press, 1997), 99.

states, on the other? – For if states are like objects, then they *do*, like events and processes, have temporal parts.

Of course, in response to this straightforward objection, there is a straightforward response. Steward can simply claim that, when drawing the above distinction, she has an *endurantist* picture of physical objects in mind – a picture on which physical objects *do* lack temporal parts. Unfortunately, it is at this point that things stop being so straightforward; for it is at this point that we might start to wonder what all this talk of ‘temporal parts’ is about. What is the difference being picked out when we say that ‘X has temporal parts, but Y does not’?

One area in which we might think to look for some clarification of this point is in the literature on the perdurantism vs. endurantism debate – a debate in which the participants are traditionally conceived of as disputing whether or not physical objects have temporal parts. However, when we look at some of the claims made by the participants in that debate, rather than finding sources of clarification about what ‘temporal parts’ talk is about, we find both perdurantists and endurantists claiming that they don’t even know what their opponent’s positive thesis about the nature of physical objects *is*.

Sider, for instance, makes the following claim about endurantism:

A core, positive thesis behind the three-dimensional picture has proved elusive. But this does not mean that we cannot proceed, nor does it mean that our discussion must be inherently vague. For three-dimensionalists are united in their opposition to *four-dimensionalism*, which has been precisely stated. If there is anything else to three-dimensionalism beyond this opposition, I challenge its defenders to say what it is.²³⁷

And, correspondingly, from the endurantist perspective, van Inwagen has claimed about temporal parts that:

I simply do not understand what these things are supposed to be, and I do not think this is my fault. I think that no one understands what they are supposed to be, though of course plenty of philosophers think they do.²³⁸

Given this apparent confusion amongst some of the participants about the views that they are rejecting, it doesn't look as though we can straightforwardly extract from this debate an account of what the difference between something that does possess temporal parts, and something that does not, comes to.

In a recent paper, however, Velleman and Hofweber have attempted to diagnose the intuitions driving both endurantism and perdurantism – and I shall show that some

²³⁷ T. Sider, *Four-dimensionalism: an ontology of persistence and time* (Oxford, 2003), 68.

²³⁸ P. Van Inwagen, "The doctrine of arbitrary undetached parts," *Material constitution: a reader* (1997): 222.

of the ideas contained in their diagnosis are useful for our purposes. The Velleman and Hofweber diagnosis, I shall claim, is useful in helping us to set up the distinction between events and processes, on the one hand, and states upon the other.

Velleman and Hofweber's diagnosis of the endurantism vs. perdurantism debate is, in part, a response to the difficulty of saying exactly what endurantism and perdurantism *are*.²³⁹ As noted above, both Sider and van Inwagen claim to have difficulty in understanding what the opposing thesis actually is.

Velleman and Hofweber provide another source of motivation for looking for such a diagnosis – they claim that the endurantism and perdurantism debate, when characterised in terms of 'temporal parts', "does not lead to two coherent philosophical alternatives."²⁴⁰ The relevant distinction between the positions is not, on Velleman and Hofweber's proposal, to be captured in terms of 'temporal parts'. Rather, it is to be captured in terms of *identity*. I shall proceed by presenting their proposal, attempting to modify it in response to some concerns while retaining the spirit of their insight, and then use the modified proposal for our purposes in drawing the distinction between events/processes and states.

²³⁹ Thomas Hofweber and J. David Velleman, "How to Endure," *The Philosophical Quarterly* (July 2010):

1.

²⁴⁰ *Ibid.*

Velleman and Hofweber claim that perdurantism is trivially true, and that endurantism is 'seriously flawed' – and so, given this, it is hard to see how there can be a debate. About perdurantism, they claim the following:

[An object's] being temporally extended is entailed by its existing throughout (or occupying) and interval of time; its being divisible into temporal parts is entailed by the divisibility of the interval that it occupies, into early and later. Given that the object's temporal extent is divisible, we can divide the object into preceding and succeeding temporal parts corresponding to the earlier and later sub-extents that they fill.²⁴¹

It looks hard to resist this line of thought. If all that is meant by 'possessing temporal parts' is 'occupying a temporal extent, where that temporal extent is divisible into earlier and later portions', then we ought to agree with Velleman and Hofweber that objects *do*, in fact, possess temporal parts.

Of course, there might then be some dispute about whether or not this 'innocent' (as Velleman and Hofweber describe it) notion of 'temporal parts' can do the work that the temporal parts theorist requires of it in solving the various problems that temporal parts theory is traditionally used to solve.²⁴² However, this dispute isn't essential to our purposes here, so I shall suggest we should ignore it.

²⁴¹ Ibid., 4.

²⁴² Two good examples of the traditional perdurantist vs. endurantist battleground are: a) the problem of temporary intrinsics (how is it that the same object can change its intrinsic properties over time, and

About endurantism, Velleman and Hofweber suggest that it is ‘seriously flawed’. They note that if the above argument in favour of objects possessing temporal parts is correct, then endurantism cannot intelligibly deny the claim that objects possess temporal parts.²⁴³ They claim that the endurance model involves commitment to a picture on which objects occupy time by ‘moving’ along a series of temporal positions:

One source of the intuition that endurance is a coherent form of persistence, we suspect, is an image of persistence as “a form of travel through time. On this conception of persistence, an object persists by travelling through time and occupying different places in time in its temporal entirety. This is analogous to an object’s travelling through space and occupying different parts of space in its spatial entirety. But the latter is coherent only because the object occupies different parts of space at different times... But movement in time can’t be understood this way, since the dimension *along* which the object changes position would be the same as the one *in* which its position is being changed.²⁴⁴

still be counted as the same object, given that Leibniz’s law tells us that objects are identical only if they have the same properties?) and b) the paradoxes of material constitution (why is it that some distinct objects – lumps of clay and statues, for instance – can spatially coincide, flaunting our commonsense assumption that that distinct objects *can’t* occupy the same spatiotemporal location?)

²⁴³ In fact, Velleman and Hofweber want to make an even stronger claim than ‘perdurantism is trivially true’ – they want to claim that it is a ‘conceptual truth’. However, this gets us into needlessly controversial territory, so I have decided to present a watered-down version of their pro-perdurantist argument.

²⁴⁴ Hofweber and Velleman, “How to Endure,” 4.

If Velleman and Hofweber are correct that what is driving the endurantist position is a commitment to a picture on which objects 'travel through time', then the endurantist will indeed be vulnerable to this 'meta-time' objection.²⁴⁵ One response at this point is to suggest that there is no reason to think that an endurantist will find the 'time-travel' model particularly appealing – and so no reason to think that the success or failure of endurantism is to be determined by the success or failure of the 'time-travel' model.

However, if endurantists aren't necessarily affiliated to the 'time-travel' model, then this raises the further question of what it is that motivates the endurantist position, and what it is the endurantists mean when they say that objects are 'wholly present' at every time at which they are present. It is in an attempt to answer both of these questions that Velleman and Hofweber present their diagnosis of the intuitions driving endurantism and perdurantism, and it is to this diagnosis we now turn.

Velleman and Hofweber suggest that the endurantist intuition is best captured by comparing the way that we think about identity of the self with the way that we think about the identity of events and processes. On identity of the self, they say the following:

²⁴⁵ For more on meta-time objections see: Dainton, *Time and space*, 21-3.

What there is of oneself at a single moment is sufficient to constitute a momentary part of oneself – a part of the particular person who one is – independently of what there may or may not be of oneself at other moments. At a particular moment, one isn't the entirety of one's temporally extended self, but one is entirely oneself, possessed of a personal identity fully determined within the moment.²⁴⁶

In this passage, Velleman and Hofweber suggest that, if we look at a single momentary sample of a person's continued existence, that person's identity is 'fully determined' by that moment alone.

I will shortly suggest that we can retain the spirit of what Velleman and Hofweber are saying while dropping the claim that we can somehow examine instantaneous temporal slices of a particular person. Before doing this, however, I suggest that we look at what Velleman and Hofweber have to say about the identity of events and processes. On the subject of processes, they have the following to say:

Consider a process such as writing a check. Writing a check is a temporally extended process, with temporal parts consisting in the laying down of each successive drop of ink. What there is of this process at a particular moment – the laying down of a particular drop – is not sufficient to determine that a check is being written, and so it is not sufficient to determine which particular process is taking place... Not only, then, does the process fail to be present in its temporal entirety within the confines of

²⁴⁶ Hofweber and Velleman, "How to Endure," 15.

the moment: it isn't fully determined by the events of the moment to be the process that it is. Within the moment, it isn't all there and it isn't fully itself.²⁴⁷

In fact, 'writing a cheque' is actually an example of an *event* rather than a *process* – though we can certainly say that the event 'writing a cheque' is *composed* out of the process of writing. 'Writing a cheque' is an example of something telic – something that is a 'movement' towards an endpoint at which it is completed – and thus an example of an *event*. Putting this concern about Velleman and Hofweber's choice of example at this point to one side, we can still examine the relevant feature of the cheque writing that they want to draw to our attention.

When we examine an instantaneous temporal slice of a the cheque-writing 'process', Velleman and Hofweber suggest, the instantaneous temporal slice isn't sufficient by itself to determine what is in fact going on. At an instant, then, the cheque writing 'isn't fully itself'. Velleman and Hofweber's suggestion is that the endurantist has the intuition that the identity of material objects is fully determined by an instantaneous temporal slice of the object – material objects are 'fully themselves' within the moment.

As this relates to the examples, the endurantist considers material objects as behaving in the same way as persons, as regards identity at an instant, whereas the perdurantist considers them as behaving more like processes. For the perdurantist, what there is of an object at an instant isn't sufficient to determine the identity of that

²⁴⁷ Ibid.

object – the object *isn't* fully itself within the moment. I shall say more about what this means shortly.

The initial way that Velleman and Hofweber talk about the examples above is in terms of instantaneous temporal slices of events/processes/persons. However, it looks as though there are two different ways that such talk can be interpreted. On the first interpretation, Velleman and Hofweber are committed to there potentially existing instantaneous temporal slices of temporally extended events/processes/persons.

On the second interpretation, they have something else in mind – something reminiscent of what has been called the ‘imperfective paradox’. An example of how we might come to interpret their proposal in either of these two ways can be found the following passage:

For now, we shall say that a sensation *abides* just in case its identity is fully determined within each moment of its persistence; and that a sensation *continues* just in case it persists but doesn't abide. If a sensation would already be the sensation that it is even if it stopped after the first moment, then it can abide as that selfsame sensation, by persisting through subsequent moments each of which could equally have been its only moment of existence. But if a sensation is the sensation that it is only because of how it will develop, then it continues but doesn't abide.²⁴⁸

²⁴⁸ Ibid., 16.

In the above passage, Velleman and Hofweber mark the distinction between things that behave like the cheque writing, as regards what determines their identity (things that *continue*), and things that behave like persons (things that *abide*). The discussion of 'abidance' is where the two different interpretations of instant-talk come in. As Velleman and Hofweber formulate the distinction, a thing that abides is a thing that 'would already be the [thing] that it is even if it stopped after the first moment'.

One use to which we might want to put Velleman and Hofweber's distinction between *abidance* and *continuing* is in distinguishing between events and processes, on the one hand, and states upon the other. The distinction can also, of course, be used as intended – as a way of distinguishing between a perdurantist conception of objects (objects don't *abide*) and endurantists (objects do *abide*).

However, as it stands, there is a reading of the abidance / non-abidance distinction that commits its user to the existence of instantaneous states in the former case, and instantaneous objects in the latter. As Velleman and Hofweber formulate the distinction, it looks as though a thing that abides is a thing that 'would already be the [thing] that it is even if it stopped after the first moment'.

The problem with commitment to the existence of instantaneous states and objects is that it isn't at all clear that we have reason to think that such things exist. Firstly, it isn't clear under what circumstances an instantaneous state or object could come to be. Secondly, it isn't clear under what circumstances we would be led to *posit* the

existence of an instantaneous state or object – it isn't clear what explanatory work such a thing could be put to.²⁴⁹

However, these problems with Velleman and Hofweber's account can be overcome, if instead of focussing upon the idea that we can somehow examine how things are with events/states/processes/objects at an instant, we think of their remarks as appealing to something like the 'imperfective paradox'. Note that in the passage above, they appeal to the idea of examining what would be the case, was the temporally extended event/state/process/object to be *stopped*.

This method of examining the temporal constitution of a temporally extended happening is reminiscent of the 'imperfective paradox'. Here is Landman on the 'imperfective paradox':

The imperfective paradox is the observation that for verb phrases expressing activities, like push a cart, the inference from the past progressive to the simple past is valid, while for accomplishments, like draw a circle, it is not, i.e., (1) entails (2), but (3) does not entail (4):

(1) Mary was pushing a cart.

²⁴⁹ That is, it isn't clear what work an *endurantist* could put instantaneous objects to – and the attempt here is to formulate the endurantist's intuition. Stage theorists, who claim that those things we ordinarily think of as material objects are in fact a collection of instantaneous *stages* that can bear sortal properties, would of course disagree with the above.

(2) Mary pushed a cart.

(3) Mary was drawing a circle.

(4) Mary drew a circle.²⁵⁰

The imperfective paradox can be treated as a source of insight into the differences between various metaphysical categories (object, event, process, state), or it can be treated as a datum for linguistic enquiry. The second way of treating the imperfective paradox – as a datum for linguistic enquiry – can crudely be thought of as fitting the imperfective paradox into a project on which the aim is to uncover various structural features of *expressions* that may not be immediately obvious. On this model, the data of (1)-(4) is to be used as part of an enquiry into linguistic expressions.

Krifka is an example of someone undertaking this kind of linguistic enquiry – talking about the property of ‘telicity’ he says the following:

It is misleading to think that a particular event can be called “telic” or “atelic”...the distinction between telicity and atelicity should not be one in the nature of the object described, but in the description applied to the object.²⁵¹

²⁵⁰ F. Landman, “The progressive,” *Natural Language Semantics* 1, no. 1 (1992): 1-2.

²⁵¹ M. Krifka, “The origins of telicity,” *Events and grammar* 197 (1998): 207.

On the other hand, we might take the data of (1)-(4) to tell us something about different types of metaphysical category – this is the kind of enquiry that I shall be attempting in what follows. On this way of using the data, (1)-(4) tell us about the properties of different types of happening – in this case, the data can be used to illustrate the difference between *events* and *processes*.

The thought behind this way of using the data is that the inappropriateness of applying certain descriptions to certain types of temporally extended happening can be used as a source of insight into the metaphysical natures of those types of temporally extended happening. I should note at this point that there doesn't appear to be any reason to think that we should use the above data in one way rather than the other – that is, the data could equally well be used for both purposes.

I should also note that it might appear tempting to use the fruits of the metaphysical enquiry to explain some of the properties of the different expressions used to apply to the different types of metaphysical category. If we did this, then we would be attempting to use the results of our metaphysical enquiry to shed light on the linguistic enterprise. However, this kind of project is not what I am up to in what follows: I am merely looking to engage with the metaphysical project. The purpose of drawing the above distinction between metaphysical and linguistic uses of the datum of the 'imperfective paradox' is just to make it clear to what kind of use the above data is being put.

So, to return to Velleman and Hofweber, and how their account relates to the

imperfective paradox, I want to suggest that one useful way to develop their suggestions about identity at an instant is to use something like the imperfective paradox. If we take a given temporally extended something, and then ask how things would be with that temporally extended something was it to be stopped after it has been going on for some interval, then we can learn about the temporal constitution of that something.

This isn't the same test as the 'imperfective paradox' – it isn't quite right to talk about objects being 'interrupted', and neither can we comfortably talk about states in the progressive ('John is knowing/believing that p'). I shall thus call this generalised version of the imperfective paradox the 'curtailed career test'. This way of reading the Velleman and Hofweber account avoids commitment to the existence of instantaneous states and objects, and thus ought to be preferred to the first way of reading Velleman and Hofweber suggested above.

§2.2: The 'Curtailed Career' Scenario

In the imperfective paradox, we are introduced to a distinction between the way processes behave when halted, and the way that events behave when halted. In the first example of Mary pushing a cart, we discover that if Mary is halted in her pushing, it will nevertheless be true that Mary has pushed a cart. In the 'pushing the cart' case, we can note that when the pushing is stopped, it is nevertheless true that *some pushing* has occurred.

However, this claim must be qualified: Velleman and Hofweber make an important observation about processes in their brief discussion of writing a cheque (even if it turns out that the example they use to illustrate the point is actually an *event*). They note that ‘what there is of this process at a particular moment...is not sufficient to determine which particular process is taking place.’ Once again, I want to shy away from characterising the temporal profiles of temporally extended things by hypothesising about how things would be with them at instants – but we can still retain the spirit of their suggestion in a way that doesn’t require such hypothesising.

In the cheque-writing case there is an event –the cheque-writing – composed of process – writing. We can focus just upon the writing process, and note that if the process of writing is stopped before a minimal interval has elapsed, it will not be the case that ‘P is writing’ entails ‘P has written’ – for all that the subject may have done at the relevant stopping point is lay down a drop of ink. For the case of the writing-process, then, it is only after a certain amount of the process in question has unfolded that ‘P is X-ing’ implies ‘P X-ed’.

The notion of a ‘minimal event’ comes from the discussions of Taylor and Dowty.²⁵² The thought is that, for some processes, in order for it to be the case that ‘P is X-ing’ implies ‘P X-ed’, some minimal event must have occurred – without the occurrence of such an event it will not be true that ‘P X-ed’. Dowty suggests that in the case of ‘P

²⁵² See: D. R Dowty, *Word meaning and Montague grammar: the semantics of verbs and times in generative semantics and in Montague's PTQ* (Springer, 1979); B. Taylor, “Tense and continuity,” *Linguistics and philosophy* 1, no. 2 (1977): 199–220.

is walking', 'P is walking' only implies that 'P walked' if the subject has done more than merely lift her foot in the air. There may be debates about what the minimal event in question then should be: Dowty suggests two steps, while Rothstein, for example, claims only one is required.²⁵³ We don't need to take a stance on these debates in order to note the important point for our purposes: the point being that, in the case of some processes, for it to be true that 'P X-ed', some minimal event must have occurred.²⁵⁴

In the case of the event, Mary drawing a circle, we note that if she is stopped while drawing the circle, it is *not* true that Mary has drawn a circle. It is not true that the 'drawing the circle' event has happened – rather, a different event, Mary's drawing *part* of the circle, has happened. If Mary is halted while drawing the circle, then no event 'Mary drew a circle' has happened. The interval that must have occurred for 'Mary is drawing a circle' to entail 'Mary drew a circle' is the duration of the *whole event*. The 'halting' test thus reveals a difference between the temporal constitution of processes, and the temporal constitution of events.

I should note at this point that I am thinking of events as particular, unrepeatable happenings. This conception of events enables us to formulate the distinction between events and processes as follows: when processes are halted, some of that process has happened, but when events are halted, the event has *not* happened –

²⁵³ S. D Rothstein, *Structuring events: a study in the semantics of lexical aspect* (Blackwell Pub, 2004), 19.

²⁵⁴ This point may not hold for *all* processes – something that I shall note shortly with the distinction between E- and P- Processes.

instead, some other event has happened.

Against this line of thought, it might be responded that we can still talk in perfectly acceptable ways about 'some' of an event having occurred in just the same way as we can talk of 'some' of a process. However, there are a few different senses of 'some' at work here. When 'some' of an event e occurs, before being halted, we have a situation in which the telic point of e is not reached. If the telic point is not reached, then we simply do not have an occurrence of event e .

What has occurred is some event that is relevantly similar to the beginning phases of e , but which is not e . In this situation, we can talk about 'some' of an event, and have in mind some event relevantly similar to the beginning phases of e , or alternatively, we can have in mind the temporal portion of the process constituting the relevantly similar event, that would have constituted part of e .

In the case of processes, however, as long as the minimal amount of process has occurred, we have something that counts as an instance of the process in question. Unlike in the case of events, there is no distinction to be drawn between *some* and *all* of the occurrence in question taking place. The role of the 'telic point' is thus crucial – events possess a telic point in terms of which they are individuated, whereas processes do not.

So, briefly returning to Velleman and Hofweber's proposal, we can note that a test

like the imperfective paradox can also be used to get clear on what the endurantist intuition is. If an object exists for a certain period of time, then we can ask about how things would be with that object if it were destroyed at some point during its career. The endurantist intuition (on this revised version of Velleman and Hofweber's proposal) is that, even if the object is destroyed at some point during its career, it will nevertheless be true that the object *has existed*.

The temporal structure of objects is thus, for the endurantist, to be distinguished from the temporal structure of events (for when events are halted during their career, it is not true that the event in question has happened – as noted above, it is rather that some other event has happened). The perdurantist, however, answers this question about objects differently. The perdurantist (again, on this revised version of Velleman and Hofweber's proposal) will not share the endurantist's intuition that the temporal structure of objects is to be sharply distinguished from that of events.

If an object is destroyed during its career, then, on this model of perdurantism, it will not be true that that object has existed – rather another, numerically distinct, object will have existed. This is because the perdurantist has the intuition that the identity of an object is determined by its whole spatio-temporal career. If this is the right way to capture the perdurantist intuition, then it clearly leaves them vulnerable to the charge that their account fails to respect the distinction between the temporal profiles of objects and events. However, as noted earlier, our purposes here are not to adjudicate between endurantism and perdurantism, but rather to extract those elements of Velleman and Hofweber's account that are useful for our purposes.

Recall that we initially made this foray into the perdurantist vs. endurantist literature with the hope of getting a grip on what it means to say of something that it possesses temporal parts, and of something else that it does not. Velleman and Hofweber's suggestion about endurantism and perdurantism is that the distinction between the two views is not best captured in terms of 'temporal parts', but rather instead in terms of *identity*. In the discussion of Velleman and Hofweber, their proposal about identity has been somewhat modified, so that it now concerns a version of the imperfective paradox. More important than temporal parts, then, is the test about how things would be with a given temporally extended thing, was that thing to be halted/stopped/destroyed after an interval of time.

The important difference in intuition between the endurantist and the perdurantist on the reformulated version of Velleman and Hofweber's proposal was that, in the case of the object destroyed part of the way through its career, the endurantist (who is traditionally conceived of as denying that objects have temporal parts) suggests that that particular object *has existed*. The perdurantist (traditionally conceived of as affirming that objects have temporal parts) *denies* that the particular object in question has existed - instead, a numerically distinct object is all that can be said to have existed. The relevant distinction between perdurantism and endurantism is how they think that objects behave in the 'curtailed career' situation (when a temporally extended something is halted/stopped/destroyed after an interval of time).

The relevant distinction for our purposes, then, ought to concern how events and processes, on the one hand, and states, upon the other, behave in these curtailed career situations. Here is the passage from Steward again, in which the temporal shapes of events and processes are contrasted with the temporal shapes of states and objects.

Events and processes have many features of their temporal shapes in common; both occur, both have temporal parts... *States* seem to have many temporal features in common with physical objects. They persist through time (at least usually) and have no temporal parts... states share a temporal shape with physical objects.²⁵⁵

If, suitably inspired by Velleman and Hofweber, we translate the talk about temporal parts in the above passage into talk about how the various time-fillers behave in the curtailed career situation, then we ought to find that, whereas states survive the curtailed career situation in the same way as objects (as they are conceived by the endurantist) do, events and processes do not.

We have already seen, above, that events do not survive the curtailed career situation – if an event is halted before completion, a numerically distinct event is what results. We have also seen that, below certain minimal intervals, some processes – writing, for example – do not survive the curtailed career situation – below minimal intervals

²⁵⁵ Steward, *The ontology of mind*, 99.

it will not be true that the relevant process has occurred. In fact, at this point, I should note that we can distinguish between two different types of process: *P-processes* and *E-processes*.

The types of process that render this distinction necessary are occurrences like smooth motion, and constant droning. These types of process are things that fit the intuitive description of processes – they ‘unfold’ over time, and they do not unfold towards some telic point – but they appear to survive the curtailed career situation in the same way as *states* do. If a smoothly moving object, or a constantly droning noise, is stopped, then it will be the case that the object *has moved*, and the noise *has droned*, no matter what interval is in question.

It looks, then, as though there is a distinction to be drawn between two different types of process – those that survive the curtailed career situation no matter what interval is in question, and those that only survive if a certain amount of them has occurred. This distinction is between processes that are composed of a series of events of the same type (*E-Processes*), and processes that are not so composed (*P-Processes*).

Examples of *E-Processes* are walking (a process composed of a subject taking a series of steps, where each completed step is an event) and swimming (which has the same structure, but with strokes replacing steps). We have already encountered some examples of *P-Processes* – constant motion, and constant droning – processes that do *not* appear to be composed out of a series of events of the same type.

In the case of E-Processes, that some E-Process is going on doesn't always, below certain minimal intervals, imply that some E-Process has occurred. The relevant interval will certainly encompass a period of time greater than one of the E-Process' constituent events of the relevant type, and may even encompass a period of time greater than the time occupied by a *number* of the relevant events. In the cases of walking and swimming, this will depend upon whether the occurrence of one step or one stroke is sufficient to count as a case of walking or swimming, or whether more steps/strokes are required.

In the case of P-Processes, however, as noted above, it appears true that no matter what interval in which the P-Process is going on is in question, that some P-Process is going on implies that some P-Process has occurred. While E-Processes fail the curtailed career test below minimal intervals, P-Processes do not. In this regard, P-Processes are similar to states: both survive the test regardless of the temporal extent of P-Process or State in question.

To see this, we can turn to an examination of States. Paradigmatic examples of states are 'knowing that P', and 'believing that P'.²⁵⁶ How do 'knowing that P' and 'believing that P' behave in the curtailed career situation? If a person knows that P for a certain period of time, and then their state of knowledge is curtailed for some reason, then we certainly can truly say of that person at the point of curtailment that they knew that P. Likewise, if a person believes that P for a certain period of time,

²⁵⁶ Cf: *Ibid.*, 80.

their belief gets curtailed, we can truly say of them at that point that they knew that P. States can thus survive the curtailed career situation – even if curtailed, it can be said that the state in question has obtained. Thus, it looks as though – so long as we translate her talk of ‘temporal parts’ into talk about survival in the curtailed career situation – Steward is right to suggest that states are like objects, as far as this aspect of their temporal shape is concerned.

Given that P-Processes appear to behave like states in the curtailed career situation, we face the question of what it is that distinguishes the one from the other. The curtailed career scenario is not sufficient by itself to distinguish between Events, States, P-Processes, and E-Processes. The additional ingredient required is an appeal to the primitive distinction between something ‘going on’ and something merely ‘obtaining’ – or between something ‘becoming’ and something ‘being’. It may be that it is possible to provide some substantive account of this distinction, but I shall be taking the distinction as primitive – and focussing only on providing a linguistic test that enables us to discern whether or not a given temporally extended happening is ‘going on’ or not.

The relevant test for whether or not something can be said to be ‘becoming’ – another way of describing something that is ‘becoming’ is that it is *occurrent* – concerns whether or not we can talk about that something in the progressive. Consider again our examples of P-Processes and States:

P-Processes: Constant Motion, Constant Droning.

States: Knowing that P, Believing that P.

While we can talk about P-Processes in the progressive ('The noise is droning', 'the ball is moving') we cannot talk about *States* in the progressive ('John is knowing that P, John is believing that P). This feature of P-Processes and States reveals a difference in their temporal profiles: namely that states do not 'go on' – they are not *occurrent* – whereas P-Processes do. As noted above, this difference, between items that are *occurrent*, and items that are not, I am treating as primitive.

So, at this stage in proceedings, we can distinguish between five different types of 'time-filler':

Achievements: Strictly instantaneous, and mark the boundaries of events and processes.

E-Processes: Temporally extended, and only survive the curtailed career situation after a certain minimal interval has elapsed.

P-Processes: Temporally extended, survive the curtailed career situation no matter what interval has elapsed, and are *occurrent*.

Events: Temporally extended, and don't survive the curtailed career situation.

States: Temporally extended, survive the curtailed career scenario, no matter what interval has elapsed, and are *not* occurrent.

Having set up these distinctions, we can now return to the issue of temporal experience.

§3: Metaphysics and Temporal Experience

The stream of experience, we can note, is something that *goes on* – it is an occurrent phenomenon. This feature of experience is noted by O’Shaughnessy, who argues that the experiential, and the non-experiential, constituents of mind can be contrasted in terms of ‘occurrence’:

Even if I am staring fixedly at some unchanging material object, such staring is not merely a *continuous existent* across time, it is an activity and therefore also a *process*, and thus occurrently renewed in each instant in which it continues to exist. In short, the domain of experience is essentially a domain of occurrences, of processes and events. In this regard we should contrast the domain of experience with the other great half of the mind: the non-experiential half... While many of the non-experiential contents of this domain could continue in existence when all mental phenomena had frozen in their tracks, say (fancifully) in a being in suspended animation at 0° Absolute, those in

the experiential domain could not.²⁵⁷

O'Shaughnessy's 0° Absolute test reveals that the stream of experience is something *occurrent*: something that is *going on*. This is why, in a state of suspended animation, the stream of experience cannot continue to exist – for in a state of suspended animation, nothing can be said to be *going on*. The 0° Absolute thought experiment provides an alternative test for whether something is 'occurrent' to the 'progressive' test described above.

We have already seen that the 'progressive' test reveals that the States of 'knowing that P' and 'believing that P' are not *occurrent*. Accordingly, 'knowing that P', and 'believing that P' also survive O'Shaughnessy's 0° Absolute test. As he notes:

The mental world of a non-experiencing being... with all its character and contents intact could in principle survive indefinitely at... 0° Absolute: all energy vanished from mental and physical systems, all mental change impossible... the continuation of the knowledge that 9 and 5 makes 14 does not as such necessitate the occurrence of *anything*.²⁵⁸

States, then, are revealed as non-occurrent by both the 'progressive' and the '0° Absolute' tests. Things get more complicated, however, when we turn to the case of

²⁵⁷ O'Shaughnessy, *Consciousness and the World*, 42-3.

²⁵⁸ *Ibid.*, 43.

another kind of state: a subject's *phenomenal state*.

When we make claims about the phenomenology, we typically express such claims in terms of how things *seem* to the subject – 'It seems to John as if P'. We capture 'what it is like' for the subject in terms how things seem to the subject to be – 'It seems to John as if he can see a red ball', 'It seems to John as if he is in pain'. If we examine the behaviour of claims about how things seems to the subject in the 'progressive' test, we get the result that such claims appear to be claims about *States*.

Just as it is inappropriate to claim 'John is knowing that P', it is also inappropriate to claim 'It is seeming to John as if P'. Both of these sentences are ill formed. Just as in the case of knowledge – where we say 'John *knows* that P', rather than 'John is knowing that P' – in the case of seeming, we say 'It *seems* to John that P', rather than 'it is seeming to John that P'. The 'progressive' test, then, reveals that talk about 'seeming' is talk about *states*.

This feature of talk about phenomenology – how things seem to the subject – that it appears to be talk about *states*, presents us with a puzzle. We have just seen, in O'Shaughnessy's remarks about the behaviour of the stream of experience in the 0° Absolute test, that the stream of experience is an *occurrent* phenomenon. It is plausible that, in order for there to be 'something it is like' for the subject, the subject must be experiencing – i.e. the subject's stream of experience must be going on.

When we apply the 0° Absolute test to the case of talk about *seeming*, then, it also appears plausible that there will *not* be something it is like for the subject who remains frozen. Talk about seeming, then, appears to be talk about States, inasmuch as such talk cannot take place in the progressive, but also appears to *not* be about States, inasmuch as it appears plausible that there is nothing that it is like for the subject when frozen at 0° Absolute.

The puzzle, then, is that talk about seeming appears to be talk about things that are both States and not States. To resolve this puzzle, we need to introduce an additional metaphysical category: the category of *Occurrent State*. *Occurrent States* are states that obtain only in virtue of the taking place of something occurrent – i.e. an event or process. Back in chapter two we saw that it is plausible that the temperature of the water in my kettle necessarily depends upon the occurrence of certain events – the movement of water molecules.²⁵⁹

We can thus distinguish between those states that depend for their obtaining upon the occurrence on certain events or processes (the temperature of the water), and those states that are not so dependent (continuation of the knowledge that P, as noted by O'Shaughnessy above, “does not depend upon the occurrence of *anything*”).²⁶⁰ In contrast to the case of ‘knowledge that P’, in the case of the

²⁵⁹ The idea of ‘Occurrent States’ as distinguished from ‘States’ is taken from: Soteriou, “Content and the Stream of Consciousness.”

²⁶⁰ One response to O'Shaughnessy's claim that the state of knowledge that P does not depend upon the occurrence of anything may be to say that we cannot ascribe knowledge or belief to an organism if all biological activity in the organism has ceased to occur. On this line of thought, in order to ascribe

temperature of the water, there is a necessary connection between the occurrence of the relevant events, and the obtaining of the state – we cannot have the occurrence of the events without the obtaining of the state.

The suggestion that claims about how things seem to the subject are claims about Occurrent States provides an explanation of how it can be that such claims appear to be about things that are not occurrent, but which nevertheless fail the 0° Absolute test. The reason is that talk about how things seem to the subject picks out *Occurrent States* – items that are not themselves occurrent, but which necessarily depend for their obtaining upon the occurrence of certain events or processes.

Instead of talking about how things seem to the subject, we can talk about the subject's *Phenomenal State* – where this picks out the relevant *Occurrent State* of the subject. That the subject is in a given Phenomenal State at a time necessarily depends upon the occurrence of certain events or processes in the subject's stream of experience. I now want to propose that this picture – according to which a subject's Phenomenal State at a time depends upon the nature of the subject's stream of

knowledge to an organism, that organism must be alive. On this proposal, we cannot ascribe knowledge to an organism in which all biological activity has ceased, for such biological activity is required if the organism is to be alive. However, we can respond to such an objection by noting that we can accept that we might be unwilling to ascribe knowledge to an organism that is not alive, but that this doesn't make 'knowledge that P' an occurrent state. The important feature of 'occurrent state' is that the occurrence of certain events or processes *necessitates* the obtaining of some state. We can then note that the biological activity required for life doesn't *entail* knowledge that P. That there are conditions under which knowledge can be ascribed to the subject thus doesn't tell us that knowledge is entailed by the occurrence of certain events or processes.

consciousness over a period of time – enables us to provide a satisfactory account of temporal experience.²⁶¹

§4. Accounting for Diachronic Unity

On the model I am proposing, the subject's stream of experience is an ongoing process – an ongoing process that can constitute distinct phenomenal events over an interval of time, and that has different properties at different times. The subject's phenomenal state at a time necessarily depends upon how the subject's stream of experience is over a limited interval of time. The ongoing nature of the stream of experience is what accounts for the continuity of consciousness, and the dependence of the subject's phenomenal state upon the nature of the stream of experience over some interval is what accounts for Time-Windows.

Before developing this positive account in more detail, I want to show how the category of 'occurrent state' may enable us to account for the intuitions driving Thin-PSA. Back in chapter one, I suggested two reasons that we might be inclined to adopt Thin-PSA rather than Fat-PSA. The Thin-PSA was introduced to explain what it is for a subject to experience a collection of items *together* – and thus account for the Time-Windows claim.

²⁶¹ The claim that an appeal to the metaphysics of 'Occurrent States' is required if we are to provide a successful account of the perception of temporally extended happenings has also been defended by Soteriou. See: Soteriou, "Content and the Stream of Consciousness."

The first line of thought appealed to in support of Thin-PSA was that there appeared to be a first instant at which we *could* experience a collection of items *together* – namely the first instant after which all of those items have occurred. The second line of thought was that, given that the subject’s stream of experience has typically gone on for a period of time much greater than the period in terms of which a Time-Window is characterised, the temporal extension of experience is simply *irrelevant* to an account of Time-Windows.

Now, over the course of the previous chapters, we have seen that the Thin-PSA is not a viable option for an account of temporal experience – we have seen that the Thin-PSA appears to inevitably force some form of unacceptable revisionism about the phenomenology. It must, therefore, be a mistake to adopt it in the first place – and, if a successful account of temporal experience is to be possible, the lines of thought driving support for it must be capable of being accommodated by some alternative proposal.

As regards the first line of thought – that there is a first instant at which we *could* experience a collection of items together, the first instant at which those items have all occurred – we can note that the introduction of the category of ‘Occurrent State’ provides an alternative way of capturing the intuition that may be driving this line of argument. The starting point for the line of argument that purportedly leads to Thin-PSA is the idea that the subject’s phenomenal state depends upon the occurrence of certain things – the items in terms of which the state is to be characterised.

One crucial distinction between an 'Occurrent State' and a Non-Occurrent State can be illustrated by returning again to the curtailed career scenario. We saw earlier on that Non-Occurrent States survive the curtailed career scenario. However, this is not always the case with *Occurrent States* – for, as we have already noted – the obtaining of an Occurrent State depends upon the occurrence of some event or process: an event or process that may not *itself* survive the curtailed career scenario.

Consider an example: the subject sees a red ball moving from position P1 to P2 over a short interval of time T1-T2. There is something it is like for the subject to see the red ball moving in this fashion – this 'something it is like' we attempt to capture by saying 'It seems to the subject as if the red ball is moving from position P1 to P2'. As we have already seen, this claim about 'seeming' picks out something Stative. That the subject is in such a Phenomenal State necessarily depends upon the subject *seeing* the ball moving from position P1 to P2.

A representationalist will want to say that being in such a phenomenal state depends not upon the subject *seeing* the ball moving, but rather upon the subject having a visual experience that *represents* the ball moving. In what follows, I intend to stay neutral over the issue of what view of perceptual experience one ought to adopt. This neutrality is related to a point discussed in the first chapter – that there are two different ways in which one might object to the Thin-PSA. I suggested that one might reject the Thin-PSA by claiming that for experience at a time to have the phenomenal character it does, it is a requirement that the object(s) of experience be temporally

extended.

This line of response is unavailable to a representationalist, who maintains that all that is relevant to determining phenomenal character are the representational properties of experience. The line of response to the Thin-PSA that appeals to the temporal extension of the object(s) of experience I called the 'Externalist' response. I am not making an 'externalist' response to Thin-PSA here: rather, I am making what I called a 'Temporal Slice' response. According to this second line of response, experience at a time possesses the phenomenal character it does only in virtue of being a 'temporal slice' of a temporally extended experience. This line of response doesn't rule out commitment to any particular view about perception.

Now, to return to the example of the red ball, we can imagine a situation in which the red ball is destroyed before it gets to P2 at T2. What does this scenario tell us about the relationship between the subject seeing some event, and the subject's Phenomenal State? The first type of answer I want to consider is one upon which the category of occurrent state is not recognised – according to this type of answer, the only type of states there are, can be states that survive the curtailed career scenario (i.e. Non-Occurrent States).

When discussing the Non-Occurrent States of belief and knowledge, we saw that both types of State survive the curtailed career scenario: 'John believes/knows that P' implies 'John believed/knew that P'. If we think that *all* states have to behave in this fashion, then this will also be the case for a subject's *Phenomenal State*. In the case of a

subject's Phenomenal State, treated as non-occurrent, the claim 'It seems to S as if P' implies 'It seemed to S as if P'. Plausibly, it is this line of thought that leads the Thin-PSA Theorist to claim that there is a first instant at which a collection of items could be experienced together – the instant after all of the relevant items have occurred.

On this line of thought, how things seem to the subject at a time must not outstrip how things *seemed*, so in order to get into the relevant phenomenal state in the case of the ball moving from P1 to P2, it has to be the case that the subject has *seen* the ball moving from P1 to P2. The first instant at which it is possible for the subject to be in the relevant phenomenal state is thus the first instant at which the subject has seen the relevant event/s in terms of which that phenomenal state is to be characterised.

The Thin-PSA theorist, then, can be read as a theorist initially attempting to provide some account of how the subject's Phenomenal State depends upon the occurrence of certain events. Without being able to appeal to the notion of an 'Occurrent State', however, the theorist is forced to cash out this dependence in terms of there being a first instant at which the State could obtain – the first instant being the instant at which the temporally extended upon which the state in question depends *has occurred*.

If we are able to appeal to the notion of an 'Occurrent State', we are able to reject the above line of argument for the Thin-PSA. If we take the subject's Phenomenal State to be Occurrent, we don't have to accept that 'It seems to S as if P' implies 'It seemed to S as if P'. This enables us to provide a different picture of the way the subject's

phenomenal state depends upon the occurrence of certain events and processes – a picture of the dependence that doesn't require commitment to Thin-PSA.

In the case of the temperature of the water and the movement of the molecules of the water, we can note that the temperature of the water is a state that obtains *concurrently* with the relevant events involving the molecules. In just the same way, we can hold that the obtaining of a given Phenomenal State is concurrent with the event/s or process/es upon which it necessarily depends for its obtaining.²⁶² In the case of the subject who sees the red ball moving from P1 to P2 over the interval T1 to T2, we can note that the subject can be in the phenomenal state 'It seems to S as if the red ball is moving from P1 to P2' from T1 to T2. The subject is in that Phenomenal State over the duration T1 to T2.

Because, on this model of Phenomenal States, how things seem to the subject at a time *can* outstrip how things have seemed (i.e. 'It seems to the subject that P' doesn't imply 'It seemed to the subject that P'), there is no motivation to adopt a Thin-PSA model of temporal experience. Rather, we need only commit to Fat-PSA, and hold that talk about how things seem to the subject at an instant (talk about the subject's

²⁶² On an approach that commits to both the 'externalist' and the 'temporal slice' responses together, the relevant event/s or process/es upon which the subject's Phenomenal State depends will be mind-independent event/s or process/es. On the 'temporal slice' response that doesn't commit to externalism, the relevant events or processes may be mind-dependent *phenomenal* events or processes. As discussed, I am providing this second kind of response – the response that doesn't commit to externalism. On my proposal, the relevant events/processes are *phenomenal* event/processes – events/processes in the subject's stream of experience.

phenomenal state at an instant) can be made true by how things seem to the subject over an interval of time (the subject's phenomenal state over an interval of time) – with the subject's phenomenal state determined by the occurrence of some event/process in the subject's stream of experience.

The second line of thought leading to the Thin-PSA was that it doesn't appear to be the temporal extension of experience that provides an account of Time-Windows, given that a subject's experience normally has a temporal extent far greater than the extent required to characterise a Time-Window. Now, on my proposal, the temporal extent of a subject's experience *is* of relevance in determining the Phenomenal State the subject is in over an interval of time – and is thus of relevance in determining the subject's Phenomenal State at a time, given that the subject's Phenomenal State at a time is determined by her Phenomenal State *over* time. By providing an account according to which the temporal extension of experience *is* of relevance in determining the subject's phenomenal state at a time (as well as having previously demonstrated that accounts that *lack* an account of this determination fail to account for the phenomenology), I hope to have shown that we ought not to find this line of thought persuasive.

We are now in a position to look in more detail at how the positive proposal about temporal experience is to work. Over the course of the first three chapters, I developed a detailed description of what exactly the phenomenology *was* that we needed to account for. Over the course of the previous three chapters, I showed why rival accounts of this phenomenology have proved unsatisfactory. I now want to demonstrate how the Fat-PSA account I have suggested can satisfactorily account for

the phenomenology. The various phenomenological claims in question are the four varieties of Time-Windows Claim, and Extreme Continuity.

§4.2: 'Extreme Continuity'

The first claim I want to turn to is the 'Extreme Continuity' claim. 'Extreme Continuity' was the claim that the boundaries of Time-Windows are not manifest in the phenomenology of experience. In chapter two I discussed a number of ways in which the boundaries of Time-Windows fail to be manifest, and also discussed a consideration that might lead us not to *expect* them to be manifest – namely, that there is no 'perspective' manifest in the phenomenology of temporal experience. My positive account of the continuity of consciousness consists in the proposal that the subject's stream of experience is to be thought of as one ongoing process.

This ongoing process has different properties at different times, and composes different phenomenal events over different intervals of time. O'Shaughnessy's '0° Absolute' thought experiment discussed earlier revealed that the stream of experience is something *occurrent*, and we can also note that the stream of experience doesn't appear to be event-like. The stream of experience survives the curtailed career scenario: if the subject *is experiencing*, it follows that the subject *has experienced*.

The different properties of the stream of experience at different times, and the different phenomenal events composed by the stream of experience over different

intervals, are what determine the subject's Phenomenal State over time, and the subject's Phenomenal State over time in turn determines the subject's phenomenal state *at* a time. Why is it that this picture of the relationship between the subject's stream of experience and her different Phenomenal States at different times allows us to provide an account of extreme continuity?

On this conception of the relationship between stream of experience and Phenomenal State, the subject's Phenomenal State over an interval depends upon the properties of the stream of experience over an interval. To see how this helps us to provide an account of continuity, we can return again to *Content and the Stream of Consciousness*:

If we accept that the fact that a subject is in a state at a time may be determined by the fact that there is an interval of time, which includes that instant, during which the subject is in that state, then we may also be led to accept the following: The answer we give to the question of what state a subject is in at a time is determined by the answer we give to the question of what state the subject is in during an interval of time that includes that instant, and the answer we give to the question of what state a subject is in during an interval of time that includes that instant is going to be contextually dependent on the interval of time we have in mind.²⁶³

If the subject's Phenomenal State at an instant is determined by her Phenomenal State over an interval of time, with that Phenomenal State in turn determined by how

²⁶³ Soteriou, "Content and the Stream of Consciousness," 554.

the subject's stream of consciousness is over an interval of time, then there will be a number of different candidate Phenomenal States obtaining at a time in terms of which the subject's experience can be characterised. As Soteriou puts it later:

Given that there are indefinitely many different periods of time that any instant will part of, it is a mistake to think that we can identify the perceptual state a subject is in by specifying the time at which it obtains and then ask after the content of that state.²⁶⁴

On this proposal, there is no such thing as *the* Phenomenal State that the subject is in at a time: there are any number of distinct, non-rivalrous Phenomenal States, all of which provide equally good characterisations of what it is like for the subject at the relevant time. All of these distinct Phenomenal States obtain in virtue of distinct intervals of the subject's stream of experience.

On this proposal, then, it is not as if there is any such thing as *the* interval relevant to characterising the subject's experience at a time: there are an indefinite number of candidates, all of which can provide satisfactory accounts of 'what it is like' for the subject at that time. Given this, we ought not to find it surprising that the boundaries of Time-Windows are not manifest in the phenomenology – for there is no such thing as *the* bounded interval whose boundaries could be manifest.

Of course, in order for us to have a genuine account not just of extreme continuity,

²⁶⁴ Ibid., 559.

but also of *Time-Windows*, we have to interpret the claim that ‘there are indefinitely many periods of time that any instant could be part of’ in a particular way – a way I shall discuss in more detail very shortly. The account of ‘extreme continuity’ I have provided is that the boundaries of Time-Windows are not manifest because there is no such thing as *the* Time-Window relevant to characterising a subject’s experience at a time. I now want to turn to a discussion of how we can account for the various ‘Time-Windows’ claims distinguished in chapter three.

§4.3: Time-Windows

The first Time-Windows claim introduced was the *Phenomenal* Time-Windows claim:

‘The Phenomenal Time-Windows claim’: To characterise experience at a time we need to appeal to something temporally extended: temporally extended happenings are *Phenomenally Present* at a time. The temporal extent in question will be equal to or shorter than the period of time for which the subject has been experiencing.

The Phenomenal Time-Windows claim, I suggested earlier, was useful in allowing us to set up the problem of temporal experience relatively straightforwardly, but the heart of the problem lies with the Sensorial and Temporal Time-Windows claims. It is to these claims that I shall now turn. In accounting for both of these claims, the

Phenomenal Time-Windows claim will also be accounted for, as the Sensorial and Temporal presence are to be thought of as varieties of phenomenal presence.

The Sensorial and Temporal Time-Windows claims were, to recap, the following:

'The Sensorial Time-Windows claim': To characterise what is sensorially present in experience at a time we need to appeal to something temporally extended: temporally extended happenings are *Sensorially Present* at a time. The temporal extent in question will be equal to or shorter than the period of time for which the subject has been experiencing.

'The Temporal Time-Windows claim': To characterise what is temporally present in experience at a time we need to appeal to something temporally extended: temporally extended happenings are *Temporally Present* at a time. The temporal extent in question will be equal to or shorter than the period of time for which the subject has been experiencing.

The important common theme in all of the Time-Windows claims is that the temporal extent in terms of which the subject's Phenomenal State is to be specified is always equal to or shorter than the period of time for which the subject has been experiencing. It is this feature of Time-Windows that requires us to interpret the claim that 'there are indefinitely many periods of time that any instant could be part of' in a particular way.

If we appeal to the notion of the subject's Phenomenal State in order to account for the 'Time-Windows' claim, then we need to ensure that the subject's Phenomenal State depends upon the occurrence of events/processes over a limited interval of time. The indefinitely many periods of time that the instant we are concerned with, when providing an account of a subject's experience at a time, must accordingly be limited. We cannot interpret the claim that there are 'indefinitely many periods of time that any instant could be part of' as telling us that we can appeal to *any* temporal interval for which the subject has been experiencing in characterising the subject's Phenomenal State at a time.

Rather, we can note that, even if it isn't the case that we can appeal to *any* interval whatsoever in characterising the subject's Phenomenal State at a time, we can still retain the thought that there may be indefinitely many relevant intervals. The view being proposed can allow this is by claiming that a given instant can be part of indefinitely many intervals at a time, even if there is a limit to the possible temporal extent of those intervals. Firstly, we can note that the relevant instant is encompassed by indefinitely many intervals of shorter duration than the maximum possible – there are indefinitely many ways in which the *duration* of the intervals in terms of which the Phenomenal State is characterised can vary.

Secondly, we can note that, even if we hold fixed the duration of the relevant interval, there are indefinitely many periods with that duration that the relevant interval is encompassed by. In this way, then, the two claims: that there are

'indefinitely many periods of time that any instant could be part of' and that there are limits to the period of time in terms of which the subject's Phenomenal State at a time can be characterised, can be reconciled.

The relevant interval in terms of which a subject's Phenomenal State at a time is to be characterised can thus be temporally limited in the way required by the 'Time-Windows' claims. Given this, we can account for the Sensorial and Temporal presence of temporally extended happenings by noting that items are both Sensorially and Temporally present in the subject's stream of experience over an interval of time. Items are Sensorially and Temporally Present throughout the course of a whole stream of consciousness, and what is Sensorially and Temporally Present in experience changes as the stream of experience goes on. In order to characterise the subject's Phenomenal State at an instant, however, we can only appeal to a limited temporal stretch of the subject's stream of experience.

In the discussion of Temporal Presence back in chapter three, I noted that I was leaving it open how, exactly, the notion of Temporal Presence was to be cashed out. I also noted that both the Specious Present Theorist and the Memory Theorist have objections to one another's accounts that prevent either from being wholly satisfactory. The Memory Theorist objects to the Specious Present Theorist by questioning how something with discernable earlier and later temporal parts can be experienced 'as present', and the Specious Present Theorist responds by noting that it cannot be that a mere 'snapshot' is experienced as present, given that we don't find any 'snapshots' in the phenomenology.

In response to this exchange, I suggested that there may a way to avoid these problems if we provide an account that commits only to the Fat-, rather than to the Thin-PSA. On the view I want to propose, the Memory Theorist's conception of token-reflexivity as *Concurrent* token-reflexivity is to be combined with the Specious Present Theorist's observation that we need the items experienced *as* Temporally Present to be themselves temporally extended.

I want to propose that the Metaphysical PPC provides us with our account of what it is for something to be experienced as *Temporally Present*. Recall the earlier distinction between the PPC (a claim about the phenomenology)...

The PPC: It seems as if the duration of experience *in* which an item X is represented is concurrent with the duration that X is represented as occupying.

...and the Metaphysical PPC – a claim I suggested that we might want to introduce as a way of *accounting* for the PPC:

Metaphysical PPC: The duration of experience *in* which an item X is represented is concurrent with the duration that X is represented as occupying.

The proposal, then, is that we commit to the Metaphysical PPC. By doing this, we not only provide a straightforward account of the (non-metaphysical) PPC, but we also get an account of what it is for something to be Temporally Present in experience. On this proposal, for an item to be Temporally Present is for it to be represented by a period of experience concurrent with the duration the item is represented as occupying. It is experience's having the structure of the Metaphysical PPC that provides us with our account of what 'Temporal Presence' is.

On this proposal, temporal experience is concurrently token-reflexive. Recall the discussion in chapter three, in which I claimed that an item is concurrently token-reflexive if the time period occupied by the truth maker of the item is concurrent with the time period occupied by the item itself. My claim is that perceptual experience is concurrently token-reflexive – so the truth-maker for a period of perceptual experience will be concurrent with the period of time occupied by perceptual experience itself.

Noting that there are temporal limits to the extent of the subject's experience in terms of which the subject's phenomenal state at a time is to be characterised enables the account to retain the idea that there are temporal limits to what seems to be temporally present to the subject at a time. Temporal Presence is thus accounted for by the claim that the temporal location of the stretch of experience in question determines the temporal location in which the objects of that stretch of experience are represented as occurring – with those two temporal locations always *concurrent*.

How does this position fare when presented with the problems that faced the Specious Present Theory and the Memory Theory? One problem that can be dealt with straightforwardly, on this proposal, is the Specious Present Theorist's thought that the items temporally present in experience must be temporally extended. On the Metaphysical PPC account of temporal presence, temporally extended items are temporally present in experience when represented by a period of experience concurrent with their apparent temporal location.

How this proposal solves the Memory Theorist's objection is not so straightforward. There are two distinguishable lines of thought that may constitute the Memory Theorist's objection to Specious Present Theory. The first line of thought is that the *only* sense in which something can be 'temporally present' is if it is experienced as *strictly present* - where the 'strict' present is the instant marking the boundary between past and future. This line of thought thus objects to the Specious Present Theorist claiming that *anything* temporally extended can be experienced as present.

The second line of thought that the Memory Theorist might be appealing to concerns the Specious Present Theorist's conception of the token-reflexivity of experience. The Specious Present Theorist, we noted earlier, commits to *Weak*, rather than to *Concurrent*, token-reflexivity of temporal presence. On the Specious Present Theorist's view, then, items given as occurring earlier than the time at which the relevant portion of experience in which they are represented can be experienced *as present* - even though, as noted, they are given as occurring *before* the relevant portion of experience. The Memory Theorist's objection to this proposal may thus not necessarily involve appeal to the strict present, but rather may be an expression of

scepticism about how something can be represented as *earlier*, but nevertheless as happening *now* or 'as present'.

Now, the view I am proposing provides a way of responding to the second possible line of thought, because the Metaphysical PPC model of Temporal Presence commits to *Concurrent*, rather than to *weak*, token-reflexivity as temporal presence. On the PPC model, nothing is represented as occurring earlier than the relevant portion of experience, and also as present: the duration of experience in which an item is represented is always *concurrent* with the duration the item is represented as occupying.

The view I am proposing *doesn't* provide a way of responding to the line of thought which suggests that the only intelligible conception of 'present' is the strict present beyond that already provided by the Specious Present Theorist: namely to note that we simply do not find 'snapshots' in experience, and so we ought not to expect to find the 'strict' present featuring in experience. Despite this, I hope to have shown that the Metaphysical PPC model has some advantages inasmuch as it avoids some of the difficulties facing both the Specious Present theory and Memory Theory by accommodating the Specious Present Theorist's conception of *what* gets experienced as present, and the Memory Theorist's conception of the token-reflexivity of temporal presence.

At this stage in proceedings we have positive proposals for how we ought to account for the *continuity* of the stream of consciousness, and for three out of the four Time-

Windows claims. We also have an explanation of the (non metaphysical) PPC – namely, the metaphysical PPC. The final piece of the puzzle is the final Time-Windows claim: the *Memorial Time-Windows* claim:

The Memorial Time-Windows claim: At a time, the subject can retain a grasp of some temporally extended happening, of duration equal to or shorter than the period of time for which the subject has been experiencing, via a faculty distinct from perception: the subject's short-term memory.

I suggested earlier – in the discussion of Husserl in chapter five – that Husserl's account turned out to look either like a flawed account of the Sensorial Presence of temporally extended happenings in experience, or of a plausible account of the *Memorial* Presence of temporally extended happenings in experience. Accordingly, I suggest that we help ourselves to the Husserlian account of 'retention' in providing an account of Memorial Time-Windows. According to this account, the subject retains a grasp of previously experienced items via the distinct faculty of *retention*.

My purposes here are not to provide a detailed discussion of Memorial Time-Windows and Retention – while both items may raise particular puzzles about our relationship to time, the main focus of this thesis is on more general problem of temporal experience: the puzzle that results from the following triad of claims:

- 1) It seems as if we can experience temporally extended happenings.

- 2) The PPC: It seems as if the duration of experience *in* which an item X is represented is concurrent with the duration that X is represented as occupying.
- 3) Time-Windows: To characterise a subject's experience *at* a time we need to appeal to some *interval* that is equal to or shorter than the period of time for which the subject has been experiencing.

As noted earlier, the claims are not *themselves* inconsistent – it is rather that claim two (the PPC) looks as though it is best accounted for in terms of the *Metaphysical PPC*, and claim three (Time-Windows) is best accounted for in terms of the Thin-PSA. The *Metaphysical PPC* and the Thin-PSA *do*, of course, contradict one another. By adopting the Fat-PSA and the *Metaphysical PPC* (which are not contradictory) this purported puzzle about temporal experience can be solved.

§5. Conclusion

In this chapter I have demonstrated how it is that one might attempt to account for the above three claims while avoiding inconsistency – by committing only to the Fat- not to the Thin- PSA. I have shown how we can account for the *continuity* of consciousness – by noting that the subject's stream of experience is an ongoing process, different intervals of which can be relevant to characterising the subject's Phenomenal State at a time. As well as this, I have shown how we might account for the 'Time-Windows' claims: with Time-Windows accounted for by noting that while different intervals of the subject's stream of experience may be relevant to

characterising the subject's Phenomenal State at a time, these intervals are temporally *limited*. *Temporal* Time-Windows were accounted for by a combination of this claim, and commitment to the Metaphysical PPC. Memorial Time-Windows can be accounted for by helping ourselves to the Husserlian notion of 'retention'.

Having provided an account of the *diachronic* unity of consciousness, I now want to return to the issue of how this discussion of diachronic unity impacts upon the *synchronic* unity issue. In particular, I shall argue, contra Dainton and Tye, that we cannot give the same account of both *synchronic* and *diachronic* unity.

Chapter Eight: The Synchronic and Diachronic Unity of Consciousness

§1. Introduction

In this chapter I want to return again to the issue of the relationship between the synchronic and diachronic unity of consciousness. The problem of the diachronic unity of consciousness, we have noted, has two aspects to it. The first aspect is that in accounting for diachronic unity we need to provide an account of 'experienced togetherness' by giving an account of the 'Time-Windows' claims. The second aspect is that our account of diachronic unity of consciousness must respect the *continuity* of consciousness, where one important aspect of continuity is that the same object of experience can be experienced together with different items at different times. This second aspect of the diachronic problem is what motivates the thought that 'togetherness' can't be transitive in the diachronic case.

In the case of the synchronic unity of consciousness, however, there is only *one* aspect to the problem: the need to provide an account of 'experienced togetherness'. There is no analogue of *continuity* in the synchronic case – and thus no analogical motivation for 'experienced togetherness' not being transitive. In fact, in the synchronic case, as noted in chapter one, it appears impossible for us to imagine what it would be like for 'experienced togetherness' to fail to be transitive. It is this difference between how 'experienced togetherness' features in accounts of synchronic and diachronic unity that means that we cannot use an account of synchronic unity to solve the *diachronic* unity problem.

Having provided a long discussion of diachronic unity, I now want to provide more discussion of synchronic unity. I shall discuss the accounts of Bayne, Dainton, and Tye in more detail. I shall provide discussion of some of the problems facing the views, but I shall also suggest that these problems don't appear to be decisive for any of them. I conclude by showing that none of their accounts of synchronic unity are suitable as accounts of *diachronic* unity.

§2. Accounts of Synchronic Unity

The problem of the synchronic unity of consciousness, as both Bayne and Chalmers and Dainton set it up, is a problem that concerns the relationships between distinct *experiences*. One important component in this debate will thus be an account of how we are to individuate experiences. We have already seen, in the diachronic debate, that Tye has proposed that there is only *one* experience per period of unbroken consciousness. Tye is thus extremely illiberal when it comes to individuating experiences. His views upon the individuation of experiences are to be contrasted with those of Bayne and Dainton:

I am not convinced that there is any single way in which experiences should be individuated. Counting experiences is *not* like counting beans in a dish: there is more than one defensible way of going about it. Plausibly it is like counting objects in a room or events during a meeting: one has some idea of what to do, but the idea that there is only one way in which to proceed is somewhat farcical.²⁶⁵

²⁶⁵ Bayne, *The Unity of Consciousness*, 2.4.

A typical stream of consciousness can be divided into particular experiences in many different ways ... I will not assume that there is any one best way of dividing a given stream into its constituent parts.²⁶⁶

Bayne and Dainton both suggest that it is a mistake to think that there is one particular way in which we ought to individuate experiences. Despite their claims, it is plain that Dainton and Bayne and Chalmers require that there be at least *some* constraints upon the individuation of experiences. On Dainton's and Bayne and Chalmers' accounts, we solve the synchronic unity of consciousness problem by giving an account of how it is that a subject's 'overall experience' is related to, or formed out of, the multiplicity of less phenomenally complex experiences had by that subject at a time. I shall now set out what Bayne and Dainton have to say about the synchronic phenomenal unity of consciousness.

As discussed in chapter one, Bayne and Dainton differ in what they take to be the primitive notion in terms of which unity is to be analysed. Bayne takes the idea that the subject has an *overall* experience to be primitive, and the problem of synchronic unity to be the problem of how the overall experience is related to the less complex experiences had by the subject at a time. Bayne thus provides a 'top-down' account. Dainton, on the other hand, takes the subject's multiplicity of experiences at a time to be primitive, and takes the problem to be that of explaining how the multiplicity

²⁶⁶ Dainton, *Stream of Consciousness*, 23.

'composes' the subject's overall experience. Dainton thus provides a 'bottom-up' account.

Bayne and Chalmers claim that we should analyse phenomenal unity in terms of 'subsumption' - where subsumption can be analysed in phenomenological terms:

One might go further by *defining* subsumption wholly in terms of the notion of "what it is like" as follows: A phenomenal state *A* subsumes phenomenal state *B* when what it is like to have *A* and *B* simultaneously is the same as what it is like to have *A*...If there is something it is like to be in a "set of states...then this phenomenology will correspond to a phenomenal state *A* of the subject, and it is clear that this state will subsume the states in the original set in the sense defined above.²⁶⁷

The answer to the question 'what does it mean to say that different states of consciousness are unified with each other, or that they are part of a single encompassing state?' is given in terms of 'what it is like' for the subject - different experiences are unified with each other when they are subsumed by an overall experience. Dainton argues that phenomenal unity can be thought of in terms of a primitive relationship called 'co-consciousness' that holds between experiences - 'primitive', because it is a relationship not reducible to any other type of relationship. While it is possible for us to talk about *some* of the properties of this relationship, we cannot say anything at all about the properties of the relationship as they are made manifest to us in experience:

²⁶⁷ Bayne and Chalmers, "What is the unity of consciousness," 21-2.

When simultaneous experiences are co-conscious, what is the nature of this relationship, what can be said about it from a purely experiential perspective? My answer to the latter question will be: nothing. I will argue that synchronic co-consciousness is a primitive feature of experience, one which cannot be analysed or reduced to anything else.²⁶⁸

Co-consciousness, then, 'cannot be analysed' – if we want to say how co-consciousness seems to us, we are able to give examples of instances in which it obtains – examples in which things are 'experienced together', but we will not be able to say anything about this relationship, "at least while we confine ourselves to describing how things seem."²⁶⁹

Bayne and Chalmers and Dainton are thus in agreement that there is more to my having a unified consciousness than my instantiating the conjunction of a collection of experiences. That is, they agree that there is a difference between my having an experience of a certain taste and an experience of a certain smell, and my having an experience of a certain taste and a certain smell. They agree that there is something that it is like *overall* for normal subjects of experience which cannot be accounted for by ascribing to those subjects a conjunction of discrete phenomenal states – this is the phenomenon that they are attempting to give an account of.

²⁶⁸ Dainton, *Stream of Consciousness*, 26.

²⁶⁹ *Ibid.*, 34.

Bayne describes Dainton's approach to this phenomenon – claiming first that there is something in the overall experience that is left out in ascribing a conjunction of experiences to the subject, and second that this something 'cannot be analysed or reduced to anything else' – as a 'no-theory theory' of the unity of consciousness. Bayne writes that his own account makes the same claim about the unity of consciousness:

Even if Dainton is right to endorse a no-theory theory of the unity of consciousness, it is not clear that his no-theory theory is the best no-theory theory. Dainton's approach to the unity of consciousness seems to be 'bottom-up': he builds fully unified streams of consciousness out of particular experiences and relations of co-consciousness. Alternatively, one could take total experiences and the relation of subsumption as one's primitives.²⁷⁰

In order for their accounts to work, then, we need a way of individuating experiences which gives the result that a subject has multiple experiences at once, one of which is the subject's *overall* experience. How, then, are Bayne and Dainton conceiving of experiences in order to get this result? It looks as though they commit to the following four claims that jointly constitute what I shall call 'liberalism' about experiences:

- 1) Experiences are instantiations of phenomenal properties by subjects/in physical bases, at times.

²⁷⁰ Bayne, "Co-consciousness," 4.

- 2) Phenomenal Properties are the properties that account for 'what it is like' for the subject.
- 3) The same phenomenal property can be borne by distinct experiences at the same time.
- 4) For every different collection of currently unified phenomenal properties, there exists an experience that is the bearer of that collection of properties alone.

Claim 2) gives the definition of how we are to think of 'phenomenal properties', and is intended to be uncontroversial. That Bayne and Dainton are committed to claim 1) is shown by the following:

I will assume that token experiences owe their individuality to three factors: their exact phenomenal character, their time of occurrence, and their physical basis... I will not speculate exactly what form this physical basis takes.²⁷¹

I will refer to this account of experiences as the *tripartite* account, because it holds that token experiences can be individuated by reference to subjects of experience, times, and phenomenal properties. According to this approach, any two experiences must

²⁷¹ Dainton, *Stream of Consciousness*, 25.

either be had by distinct subjects of experience, occur at different times, or involve distinct phenomenal properties.²⁷²

Dainton and Bayne disagree over one ingredient in their views upon the individuation of experiences – over whether we should individuate in terms of subjects of experience, or the ‘physical basis’ of experiences. This difference will not prove important in what follows, so I shall put it to one side.

Claims 3) and 4) are, while not explicitly committed to by Bayne and Dainton, required in their accounts if we are to agree with the way they set up the problem of the unity of consciousness. Claim 4) is required if we are to agree that a subject does indeed have an ‘overall’ experience at a time. Claim 3) is required if we are to think that subjects have, simultaneously with this overall experience, less phenomenally complex experiences.

That Bayne and Dainton are committed to claims 3) and 4) is, I think, shown in the following passages:

There is something it is like to see the book while feeling the pain. Here there is a sort of conjoint phenomenology, that carries with it the phenomenology of seeing the book, and the phenomenology of feeling the pain...we can think of the conjoint state here as involving at least the conjunction A&B of the original phenomenal states A and B. But

²⁷² Bayne, *The Unity of Consciousness*, 2.4.

importantly, the conjoint state is itself a phenomenal state: a single complex state of consciousness that subsumes the individual states of consciousness A and B. It is this encompassing state of consciousness that unifies A and B.²⁷³

A complete momentary cross-section of a stream is an experience...[and]...any combination of co-occurring contents within a stream is an experience.²⁷⁴

Streams have component parts, and...these parts are particular experiences...²⁷⁵

However, Michael Tye has argued that setting up the problem of the unity of consciousness in a way that involves liberalism is a mistake. I shall discuss two of his arguments here – the ‘phenomenal bloat’ argument, and the ‘just-more-content-argument’. I should also note that setting up the debate in terms of liberalism isn’t part of Tye’s arguments, but something I have added to them in order to bring out their force when applied to Bayne and Dainton’s accounts.

§3. Tye’s Attempt to ‘Dissolve’ the Synchronic Unity Problem

Tye suggests that Bayne and Dainton’s error is to assume that subject’s have multiple experiences at a time, and provides the ‘phenomenal bloat’ and the ‘just-more-

²⁷³ Bayne and Chalmers, “What is the unity of consciousness,” 12.

²⁷⁴ Dainton, *Stream of Consciousness*, 23.

²⁷⁵ *Ibid.*, 90.

content' arguments in an attempt to reveal what is wrong with setting up things in the way that they do.

As I read it, the phenomenal bloat objection is an attempt to show that liberalism *does not* motivate the claim that the subject has an overall experience at a time – rather, liberalism leads us to the conclusion that there *is no overall experience*. Consider a subject having a visual experience of book and a painful experience. If these two experiences are unified, suggests the liberal, then there will be something that it is like for the subject that cannot be characterised correctly just by ascribing to the subject those two experiences: we need to posit another experience which has those two experiences as parts. This experience bears the phenomenal properties of both of the experiences that compose it, and, importantly, the phenomenal property of unifying those experiences.

However, Tye claims that we can then ask the question, 'what unites the new experience of the book and the pain with the visual experience of the book?' These two experiences are in fact united in the subject's experience, and so, suggests Tye, the answer will have to be 'another experience which has the experience of the book and the pain, and the visual experience of the book, as its parts. We can then ask, 'what unites the experience which has the experience of the book and the pain and the experience of the book as its parts, with the painful experience?' The answer again will have to be 'another experience' – and so as Tye puts it, this "necessitates yet another experience; and so on, without end."²⁷⁶

²⁷⁶ Tye, *Consciousness and persons*, 22.

Tye's argument here shows that if we adopt liberalism about experiences, then *prima facie* there is no reason to think that subjects have an overall experience – rather, we will have to posit an infinite number of experiences in order to give an account of the subject's phenomenology. This argument provides us with one reason to doubt that Dainton and Bayne and Chalmers have set the problem of the unity of consciousness up correctly: if there is no overall experience, then the question of 'what is the relation between the overall experience and the experiences that compose it?' never even arises.

How do Dainton and Bayne respond to this argument? It appears that they respond in the same way:

The phenomenal bloat objection can be deflated by noting that the unifying experience need not be distinct from the unified experiences. Take a complex experience (e3) that subsumes two other experiences (e1 and e2). Experiences e1 and e3 are unified in virtue of being subsumed by a single experience, but that single experience need be none other than e3 itself. There is nothing incoherent in the idea of a maximal unifying experience.²⁷⁷

Dainton himself does not respond to the phenomenal bloat objection in print, though Bayne suggests the following line of response for him:

²⁷⁷ Bayne, "Divided brains and unified phenomenology," 503.

Dainton himself suggests that the simplest way to solve the problem is to deny that [Tye's proposed 'additional experiences' in the bloat objection]... are extra or additional experiences; the resultant state is just [the overall experience] under a different name...the combination of an experience with one of its parts just is the experience itself. This response has a certain phenomenological plausibility.²⁷⁸

Dainton's answer here is similar to Bayne's own: both stipulate that the overall experience is an exceptional case, and should not be thought about in the same way as other experiences. While most experiences can be combined with other experiences to form new experiences, this is not the case with one experience – the *overall* experience.

One motivation for this response that Bayne and Dainton may have in mind is the thought that the 'overall experience' *just is* what we are attempting to provide an account of in the first place – they are attempting to account for the idea that there is something that it is like overall for the subject at a time – they are thus entitled to help themselves to the notion of a 'maximal' or 'overall' experience in the account.

However, while this line of thought might look convincing coming from Bayne – who is giving a 'top-down' approach in which the notion of the 'maximal' experience is taken to be primitive – it is not so convincing coming from Dainton. The reason for

²⁷⁸ Bayne, "Co-consciousness," 85.

this is that Dainton is providing a 'bottom-up' account in which what is taken as primitive (i.e. not susceptible to further analysis or explanation) is not the 'overall' experience, but a multiplicity of less complex experiences.

If we allow Dainton to help himself to the primitive notion of the 'overall' experience as well as to the primitive notions of the less complex experiences, and the primitive phenomenal relation of co-consciousness, then it begins to look as if his account will end up containing very little in the way of analysis: surely not *every* component in an account of the unity of consciousness can be a primitive notion? The 'phenomenal bloat' objection thus looks as if it succeeds in generating problems for the liberal – at least for the liberal who adopts a 'bottom-up' approach.

We can now discuss Tye's second argument - the 'just more content' argument. The 'just-more-content' argument presents a problem for the liberal who seeks to explain the unity of consciousness in terms of a 'phenomenal unity relation' – the strategy Bayne and Chalmers and Dainton employ. As discussed earlier, when the problem of the unity of consciousness is introduced, Bayne and Chalmers and Dainton appeal to the intuition that there is 'something missing' from a description of a subject's experience at a time if we try and characterise subject's phenomenology just in terms of a conjunction of experiences. To remedy this, we need to add the 'experienced unity' of those experiences to the description. Tye's challenge to the liberal has two stages: the first is to claim that what is added to the description is itself a further experience:

The experience of the unifying relation is not itself a sense-specific experience. But it is an experience nonetheless; for if there were no experience of the unifying relation, then there would be nothing it is like to have the sense-specific experiences unified.²⁷⁹

The next stage is to claim that if the unifying relation is itself an experience, then we are faced with the question 'what unites this experience with the other experiences (such as the visual experience of the red car) that the subject is having?' If we want to say that the addition of the experience of the unifying relation has generated an 'overall experience' for the subject (and this is what Bayne and Chalmers and Dainton *do* want to say), then there must be some kind of explanation of what unifies the experience of unity and the rest of the subject's experience *into* the overall experience.

Tye claims that to provide this explanation, we have to appeal to yet another phenomenal unifying relation - which is itself an experience - "and now a regress has begun to which there is no end."²⁸⁰ The problem here for Bayne and Chalmers and Dainton is that by being liberals about experience, they allow the unifying relation - because it contributes to the phenomenology of the overall experience - to be *itself* an experience, and so the question of 'what unites the experiences together to form an overall experience?' re-arises.

²⁷⁹ Tye, *Consciousness and persons*, 22.

²⁸⁰ *Ibid.*

There are two lines of response one might give to the objection: one is to claim that the phenomenal unity relation is a 'self-binding' relation; and the second is to claim that the phenomenal unity relation is not itself an experience. If the phenomenal unity relation is a 'self-binding' experience – then the suggestion is that we don't need to explain what unites the phenomenal unity experience with the experiences that it unifies, as it unifies *itself* with them. However, this move is problematic: if experiences can be self-binding, then why do we need to posit an additional 'phenomenal unity relation' in the first place – why can't we just say that experiences like 'a visual experience of the book' bind themselves to experiences like 'a painful experience'?

It seems that the reason we should not say this is related to the way in which the problem of the unity of consciousness is originally set up: if experiences are bound together, then the phenomenology cannot be explained by ascribing to the subject the conjunction of a set of experiences. There must be an *additional phenomenal element* responsible for binding those experiences together – the subject's overall experience must have an additional phenomenal property – and given the liberal assumption that any instantiation of a phenomenal property can be called an experience, it seems that there is nothing to stop us from calling the bearer of *this* phenomenal property an experience.

So much, then, for the 'self-binding' approach. Perhaps, instead, the liberal has some way of showing why we should not think that there is an extra experience involved which bears the phenomenal property that explains unity. Dainton and Bayne both

use this method as their solution to the just-more-content argument – Dainton claims:

While [Tye] is right that a regress looms if the unity relation is an experience...this is not the only option. Co-consciousness is a relational property of experiences, not an experience, and since it is a *phenomenal* relation, it is by no means absurd to suppose that it can account for phenomenal unity as it is experienced.²⁸¹

It is not clear to me how appeal to *relational* properties of experience solves the problem for the liberal – given that Dainton has already claimed that ‘I will regard any experiential component of a stream of consciousness as ‘an experience’’, it seems that only a stipulation about certain *kinds* of experiential component being made here has blocked the regress. Bayne also suggests that:

A more attractive response is to deny that phenomenal unity is itself an experience... the lesson to draw from the explanatory regress objection is that phenomenal unity is a phenomenal relation in the sense that it makes a phenomenal difference.²⁸²

And more recently has suggested that:

²⁸¹ Dainton, *Stream of Consciousness*, 247.

²⁸² Bayne, “Divided brains and unified phenomenology,” 503.

Phenomenal unity is a phenomenal relation in the sense that it makes a phenomenal difference, but not in the sense that it has its own phenomenal character that makes an additional contribution to what it is like to be the subject in question. One way to think about it would be in terms of different *ways* of undergoing experiences e1-e5. In principle, one can have these states separately or one can have them together, as parts of a subsuming experience. Unity then is not an *object* of experience but a *manner* of experiencing.²⁸³

The question here for Bayne, as it is for Dainton, is ‘Why should we not think of the introduction of this phenomenal relation as introducing a further experience?’ Even if we agree with Bayne and Dainton that not everything which makes a phenomenal difference to what it is like for the subject needs to be explained by the presence of an additional experience, it is interesting to note that in an earlier paper Bayne suggests that it is not obvious that denying that the phenomenal unity relation is an experience actually provides a response to the just-more-content argument:

It is not easy to know what to make of [this] response, for it is rather unclear what the difference between an experience and an experiential item comes down to. In order to generate the regress, all the proponent of the JMC argument needs is the claim that any phenomenal item will be co-conscious with every other phenomenal item that occurs within the same complex experience, and it is not clear that (or how) Dainton can avoid granting this point.²⁸⁴

²⁸³ Bayne, *The Unity of Consciousness*, 2.4.

²⁸⁴ Bayne, “Co-consciousness.”

So, even if we agree that the stipulations made about what is to count as an experience by Bayne and Dainton are allowed, this might not actually succeed in providing them with a way out of the regress generated by the just-more-content argument. Given that there seem to be, if not unanswerable objections, serious difficulties for the liberal in providing responses to Tye's arguments while retaining their accounts' explanatory power, we might think that liberal accounts have gone astray from the outset. Perhaps if we assume liberalism about experience, then we will never be able to provide satisfactory accounts of the unity of consciousness. In this case, we should set the initial problem of the unity of consciousness differently.

Tye makes this very suggestion: in order to avoid the problems of the just-more-content argument and the phenomenal bloat objection, he suggests we should use a much more restrictive notion of experience. Rather than assuming liberalism and then adding further constraints to what counts as an experience in the difficult cases raised by Tye's arguments, he suggests that we should constrain the notion of what counts as an experience *in general*. Instead of positing a plethora of experiences at any one time in order to account for what is it like for that subject, he suggests that there is only really *one experience*.

Tye's positive proposal is the 'one experience view': we can explain the unity of our experience by saying that in unified-experience situations there is *unity of content*. Accordingly, in Tye's original description of the phenomenology in question, he says 'experience presented all these things to me *together*.' Describing the phenomenon in terms of an array of different experiences, according to Tye, is a misleading description of the unity that we experience. Tye distinguishes between the notion of

an 'experience' – of which there is only one per subject – and the notion of a 'representation': "even if some proper parts of experiences are representations, they are not themselves experiences."²⁸⁵ One line of objection to Tye's account has been to suggest that this distinction is merely verbal – this line of objection we shall look at shortly.

If we accept Tye's description of the phenomenon, then we still ought to be looking for an explanation of the synchronic perceptual unity that we experience, but that will be explained by a property that the 'one experience' had by the subject possesses – and not relations between experiences. Tye's account is similar in structure to Bayne's – he begins with the overall experience, and then considers its relation to the 'representations' that compose it – the 'top-down' method mentioned earlier. The property Tye has in mind is that of the experience's possessing a complex content:

Phenomenal unity is a matter of simultaneously experienced perceptual qualities entering into the same *phenomenal content*.²⁸⁶

One thing that might strike us as suspicious about this proposal is that, even though Tye claims here that the subject is only having one experience at any one time, he allows that that experience involves discriminable elements – the perceptual qualities. Perceptual qualities are things that there is 'something that it is like' to have, and thus, on the liberal conception of experience, there ought to be a distinct

²⁸⁵ Tye, *Consciousness and persons*, 40.

²⁸⁶ *Ibid.*, 36.

experience corresponding to each of these qualities. Why, then, should we accept Tye's claim that experiences are part-whole composed of *representations*, rather than more experiences? Tye claims things like the following:

The experience of a red square next to a green triangle at time t ... has a component-representation at t representing a red square and a component representation at t representing a green triangle.²⁸⁷

We might suspect that Tye has simply renamed the experiences (in the liberal sense) which are parts of the stream of consciousness as 'representations', and 'solved' the problem of the unity of consciousness with a mere shift in terminology.

In response to this, Tye grants that it is possible that I *could* have had an experience of just a red square or just a green triangle, but claims that this does not show that the part of my experience that represents a red square is an experience. Talk of the components of streams of consciousness as 'experiences' is to be analysed counterfactually. Experiences, Tye claims, are *maximal*, which is to say that they cannot be parts of other experiences – the only things which we are properly entitled to call experiences, then, are whole, gapless, streams of consciousness:

²⁸⁷ Ibid., 39.

A stream of consciousness is just one temporally extended experience that represents a flow of things in the world. It has no shorter experiences as parts. Indeed it has no experiences as proper parts at all.²⁸⁸

Tye's motivation for individuating experiences in this way is that it enables a solution to the problem of synchronic unity to be provided. Against this claim, both Dainton and Bayne have suggested that we can still raise questions about synchronic unity even within Tye's framework. Dainton, for instance, suggests that:

Suppose we accept that entire streams of consciousness are single experiences that are not composed of lesser experiences. It remains the case that our streams of consciousness have *parts*, and the even if these parts are not individual experiences, they are nonetheless *unified* in a distinctive way, and the question of what unifies them remains very much alive... We could, for example, opt to talk in terms of 'phenomenal regions' rather than 'experiences'. My current stream of consciousness has an auditory phenomenal region and a visual phenomenal region, and the latter is composed of many smaller visual phenomenal regions. The various phenomenal regions comprising my consciousness are unified in a distinctive way – in a way that regions of my consciousness and your consciousness are not – so what is responsible for this unity?²⁸⁹

Dainton's suggestion is that Tye's illiberal stance on how we ought to individuate experiences is mere stipulation about what we ought to call an 'experience'. Of

²⁸⁸ Ibid., 108.

²⁸⁹ Dainton, *Stream of Consciousness*, 253.

course, the 'one-experience' proposal is not intended by Tye as stipulation – rather, it is intended as a response to the failures of the liberal accounts. Whether or not we see Tye's proposal as giving us a substantive account of unity depends upon our evaluation of the success of his attack on the liberals. If we think that the liberal responses to Tye's attacks (stipulations about what is to count as 'an experience', and additionally, in Dainton's case, stipulation about the nature of the overall experience) are adequate, then Tye's proposal that there is only 'one experience' will seem itself like mere stipulation.

If, however, we think that the liberal responses to Tye's attacks are unsatisfactory – that the stipulations about what is to count as 'an experience' are inadequate – then Tye's proposal that we need some alternative way to individuate experiences will seem much more convincing. If the liberal is, as Tye suggests, incapable of even setting up the *problem* of synchronic unity without resorting to various stipulations about experiences, and this is thought to be worrying, then the 'one-experience' proposal will seem like a concrete proposal for how we ought to proceed.

§4. Conclusion

Tye's objections to the liberals are thus not decisive, but at the very least they force the liberals to adopt positions that are less elegant than they would otherwise be. My purpose here is not to adjudicate between the various accounts of synchronic unity that have been provided by Tye, Dainton, and Bayne. Rather, I want to conclude by

noting that none of their accounts of synchronic unity can be used to provide solutions to the problem of *diachronic* unity. That this is so doesn't present any problem for Bayne's account – for Bayne nowhere commits to saying that his account of synchronic unity is intended to be applicable to the diachronic case. It does, however, present problems for Tye and Dainton, who have both claimed that their accounts of synchronic unity *are* intended to apply to the diachronic case as well.

We saw previously, in the discussion of Tye's account of temporal experience, that in order to account for the difference between the synchronic and diachronic unity problems, Tye introduces the distinction between the 'total' and the 'momentary' character of the one experience. As we saw, this proposal faces the problem that the *content* of experience isn't something that is temporally distributed over a period of time in the same way as the utterance of the sentence is. In the case of the non-conjunctive utterance, we noted, while the utterance may have different properties at different times, the content expressed by the utterance is expressed by the *whole* utterance.

In the case of the one-experience, Tye is faced with a choice: either he can give up the distinction between 'total' and 'momentary' phenomenal character, or he can commit to a view according to which experience has different content at different times. If he takes the first option, then his proposal will lack an account of Time-Windows. If he takes the second option, then the claim that there is 'one experience' appears merely verbal.

We also saw previously that Dainton's synchronic account faces a serious problem when applied to the diachronic case: the problem being his claim that the same relation ('co-consciousness') can be both transitive and non-transitive. This problem would also apply to Bayne's account, was Bayne to attempt to apply his synchronic account to the diachronic case. What Bayne and Dainton's accounts have in common is a commitment to synchronic unity being accounted for in terms of a primitive relation. Both accounts commit to this primitive relation being *transitive* in the synchronic case.

Of course, as already noted, 'experienced togetherness' is *not* transitive in the diachronic case. Accordingly, when Dainton attempts to apply his synchronic account to the diachronic case (and were Bayne to attempt to do the same) he is forced to drop the claim that the primitive relation is transitive. It is this that renders Dainton's account of diachronic unity unsatisfactory – and may also make us dubious about his account of *synchronic* unity – for, as noted earlier, it looks plausible that any account of how relations are to be individuated will involve a requirement that for two relations to be identical is for them to have the same logical properties.

In conclusion, I hope to have demonstrated over the course of this thesis that there are crucial differences between the diachronic and synchronic cases of unity, as well as having provided a positive account of diachronic unity that succeeds in accounting for the phenomenology. By providing an account of how a subject's phenomenal state at a time can depend upon the way the subject's stream of

experience is over an interval of time, I hope to have shown that it is possible to provide an account of diachronic unity that manages to provide a satisfactory account of 'experienced togetherness', while remaining consistent with the additional phenomenological constraints that apply to the case of diachronic unity.

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